



Sandwell Metropolitan Borough Council Air Quality Action Plan 2018 - 2023



Part IV of the Environment Act 1995 Local Air Quality Management

Sandwell Metropolitan Borough Council

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Forward

By the Cabinet Member

Executive Summary

Air pollution is associated with adverse health impacts and early deaths. It is recognised as a contributing factor in the onset of heart disease and cancer. Air pollution particularly affects the most vulnerable in society: including children and older people with heart and lung conditions. There is often a strong correlation with equalities issues, because areas with poor air quality are also less affluent^{1,2}. The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³. Sandwell is committed to reducing the exposure of people in Sandwell to poor air quality in order to improve health.

In the past, the main source of air pollution in the UK was the burning of fossil fuels, such as coal, in homes and factories. This produced high levels of smoke and sulphur dioxide, which were usually visible and this has greatly improved since the Clean Air legislation were enacted. Today we have a complex mixture of pollutants, most of which we cannot see. They are a mixture of gases and fine particles, largely resulting from processes of fuel combustion. They originate from a combination of domestic, commercial, industrial and transport sources. Traffic pollution in has become worse and is now the major threat to lung health and contributor to climate impacts. In Sandwell elevated nitrogen dioxide (NO₂) levels are observed at busy junctions, narrow congested streets and in town centres

The Environment Act 1995 (Part IV) requires all local authorities to regularly review and assess air quality within their boundaries. Where pollutant concentrations exceed national objectives, the local authority must declare an Air Quality Management Area (AQMA) and produce an action plan detailing how they intend to improve air quality within these areas. The borough was declared as an Air Quality Management Area (AQMA) on 26 July 2005 due to of the annual mean concentration of NO₂ being exceeded at a number of locations.

The Air Quality Action Plan (AQAP) sets out what action the council will take to improve air quality in Sandwell between 2018 and 2023. This action plan will replace the current one which was adopted in September 2009. The principle aim of the plan is to secure reductions in NO₂ concentrations and comply with the national air quality objective. Although there are no areas where the objective for particulate matter (PM₁₀) has been exceeded, we will continue to monitor concentrations and work with our partners to secure reductions.

The council has concentrated its actions in 5 key areas to reduce air pollution arising from vehicle emissions; these are listed below with examples of actions already implemented.

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

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Table 1– Actions already undertaken to tackle poor air quality	
Key areas	Actions undertaken
Promoting health initiatives that support sustainable transport and behavioural change	<ul style="list-style-type: none"> > Implementation of walking, cycling and public transport schemes (part of the regional ‘Smart Network, Smarter Choices programme) > Adoption of the West Midlands Cycle Charter to achieve improved walking and cycling uptake across the borough
Reduce congestion and minimise transport emissions through traffic management and highway improvements.	<ul style="list-style-type: none"> > Motorway and strategic road network traffic control measures to monitor and coordinate traffic movement and disseminate ‘live’ travel information to drivers. > Improved incident response times to reduce associated congestion. > Motorway active traffic management, to prevent and manage congestion and minimise stop/start traffic movement and ramp metering to coordinate traffic joining the motorway. > The designation of red routes on major arterial roads to impose strict controls on stopping and parking and thereby maintain free flowing traffic.
Implementation of guidance and policy, working in partnership with key stakeholders to improve air quality outcomes.	<ul style="list-style-type: none"> > Formulation and adoption of policies and guidance to encourage the shift towards sustainable modes of travel and low emission vehicles. Examples are the Good Practice Air Quality Planning Guidance published by the West Midlands Low Emissions Towns and Cities Project (WMLETCP) and the Black Country Air Quality Supplementary Planning Document and Black Country Air Quality (SPD). > Coordinating air quality activities across the West Midlands, through the WMLETCP and the West Midlands Combined Authority (WCA) has achieved
Improve understanding of pollutant behaviour particularly at hot spot locations.	<ul style="list-style-type: none"> > Regional and local source apportionment and technical feasibility studies have already been undertaken to investigate and test air pollution dispersion models
To review the council’s impact on air quality through an assessment of its vehicle fleets, taxi licencing and employee vehicle use.	<ul style="list-style-type: none"> > The council has organised low emission vehicle trials and employee demonstration days to promote the use of ultra-low emission both private and commercial vehicles. > Meetings across services are underway to secure better data and information review of fleet make-up across the council.

The Air Quality Action Plan (AQAP) sets out what action the council will take to improve air quality in Sandwell between 2018 and 2023. This action plan will replace the current one which was adopted in September 2009.

Aims

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- To reduce the overall health impacts and burdens of poor air quality
- To achieve the national air quality NO₂ annual mean objective across the Borough in the shortest possible timeframe.
- To reduce PM₁₀ and PM_{2.5} concentrations in order to protect human health

Priority Actions

Priority 1 - Hot-spot Locations

Hot spots have already been identified for further investigation; however it is intended to develop an air pollution model of the borough to ensure all hot spot locations are identified. These locations will be prioritised and source apportionment undertaken where necessary. Transport planning and traffic infrastructure management will be reviewed at each hot-spot location to identify where additional resource is needed and prepare a programme of works for each zone

Priority 2 - Sustainable Transport Initiatives

To continue promoting walking, cycling, car sharing and public transport initiatives and to undertake additional health promotion campaigns to increase physical activity and the use of low emission vehicles.

Priority 3 - Review what impact the council has on air quality in its role of a provider of public services and develop a plan to reduce emissions from its activities.

To carry out a full review of council vehicle fleets, licencing activities and employee vehicle use in order to understand and prioritise council related air quality initiatives.

The AQAP outlines how the council will tackle poor air quality within its control. It will continue to work with regional and central government on policies, such as vehicle emission standards, to secure further reductions in vehicle emissions.

Responsibilities and Commitment

The Air Quality Action Plan was prepared with the support and agreement of officers from the following service areas:

- Environmental Health, Sandwell MBC
- Public Health, Sandwell MBC
- Regeneration & Economy, Sandwell MBC
- Neighbourhood Services, Sandwell MBC
- Transport Policy & Strategy, Transport for West Midlands

This AQAP has been approved by:

Cabinet member for public health and protection, Sandwell MBC

This AQAP will be subject to an annual review and progress will be reported to the cabinet member for Public Health and Protection.

If you have any comments on this AQAP please send them to Sandwell MBC's Environmental Health department at:

Address: Environmental Health, Sandwell Metropolitan Borough Council, Court House, 335-337 High Street, West Bromwich, West Midlands, B70 8LU

Telephone: 0121 569 6600

Email: ehts_enquiries@sandwell.gov.uk

Table of Contents

Forward	i
Executive Summary	ii
Responsibilities and Commitment	v
1.0 Introduction	1
2.0 Summary of Current Air Quality in Sandwell.....	2
3.0 Sandwell’s Air Quality Aims and Priority actions	3
4.0 Policy Context	3
4.1 Sandwell Vision.....	3
4.2 National Air Quality Plan	4
4.3 West Midlands Combined Authority.....	5
4.4 Highways England	5
4.5 Public Health Context	6
5.0 Reducing Emissions.....	9
5.1 Source Apportionment	9
5.2 Reducing Emissions at Hot spot locations.....	10
5.3 Sandwell Key Priority Zones	14
6.0 Priority Actions	15
6.1 Promote health initiatives that support sustainable transport and positive behavioural change	15
6.2 Reduce congestion and minimise transport emissions through traffic management and highway improvements.	19
6.3 To formulate and implement guidance and policy and to work in partnership with key sectors to improve air quality outcomes	21
6.4 To improve understanding of pollutant behaviour at hot spot locations.....	22
6.5 To review and improve the Council’s impact on air quality through a review of internal fleets, taxi licencing and employee vehicle use.	22
6.6 Priority Actions	23
7.0 Development and Implementation of Sandwell Council’s AQAP.....	25
7.1 Consultation and Stakeholder Engagement.....	25
(To be completed after consultation process).....	25
7.2 Steering Group.....	26

Sandwell Metropolitan Borough Council

7.3 AQAP Measures 27
Appendix A: Response to Consultation 36
Appendix B: Reasons for Not Pursuing Action Plan Measures 37
Glossary of Terms 38

1.0 Introduction

The Environment Act 1995 (Part IV) requires all local authorities to regularly review and assess air quality within their boundaries. Where pollutant concentrations exceed national objectives the local authority must declare an Air Quality Management Area (AQMA) and produce an action plan detailing how they intend to improve air quality within these areas.

The air quality action plan outlines the actions that Sandwell will deliver between 2018 and 2023 in order to reduce population exposure to air pollution and improve the health and quality of life for its residents and visitors to the borough.

The Plan will be reviewed every five years and progress on measures contained within the document will be reported annually to the Department for Environment, Food and Rural Affairs (DEFRA) within the Annual Status Report (ASR).

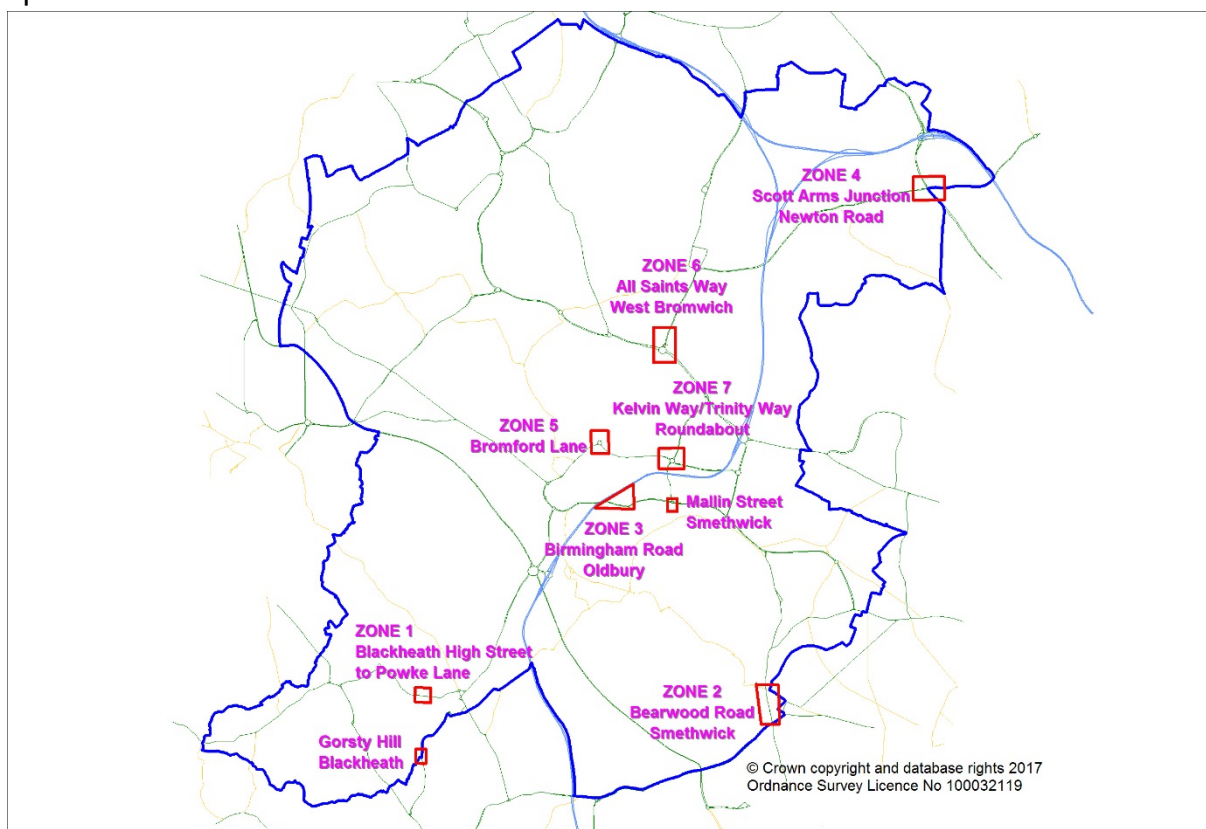
2.0 Summary of Current Air Quality in Sandwell

The council's Annual Status Report (ASR) 2015 was submitted to DEFRA in November 2016 and approved 14 December 2016. The next ASR is in preparation and is due to be submitted to DEFRA by 30 November 2017.

Sandwell is meeting all of the national air quality objectives other than those for nitrogen dioxide (NO₂) (annual mean). Continuous monitoring is undertaken at 6 locations and individual nitrogen dioxide diffusion tubes at 95 locations. In 2015, only 7 of the 22 areas of concern continued to exceed the NO₂ objective. However, at these locations concentrations above the national objective continue with no evidence concentrations are reducing at a significant rate. The report can be found on the council's [website](#) along with other reports

This and other documents that relate to the council's work on air quality reporting and actions can be found [here](#):

The borough was declared as an Air Quality Management Area (AQMA) on 26 July 2005 due to of the annual mean concentration of NO₂ being exceeded at a number of locations. The boundaries of the AQMA are shown below along with identified hot spots.



3.0 Sandwell's Air Quality Aims and Priority actions

The principle source of air pollution in Sandwell is vehicle exhaust emissions from petrol and diesel engines. Elevated nitrogen dioxide levels are observed at busy junctions, narrow congested streets and in town centres.

The council's aims are:

- To reduce the overall health impacts and burdens of poor air quality
- To achieve the national air quality NO₂ annual mean objective across the borough in the shortest possible timeframe.
- To reduce PM₁₀ and PM_{2.5} concentrations to protect human health

These are supported by the following priority actions:

Priority 1 - Hot-spot Locations

To develop an air pollution model of the borough to ensure all hot spot locations are identified. These locations will be prioritised and trend analysis and source apportionment undertaken as necessary. Transport planning and traffic infrastructure management will be reviewed at each hot-spot location to identify where additional resource is needed and prepare a programme of works for each zone, identifying timeframes and goals for each intervention identified.

Priority 2 - Sustainable Transport Initiatives

To continue promoting walking, cycling, car sharing and public transport initiatives and undertake additional health promotion campaigns (including walking and cycling) to increase physical activity and the use of low emission vehicles.

Priority 3 - Review what impact the council has on air quality in its role of as a provider of public services and develop a plan to reduce emissions from its activities.

To carry out a full review of council vehicle fleets, licencing activities and employee vehicle use in order to understand and prioritise council related air quality initiatives.

4.0 Policy Context

4.1 Sandwell Vision

Sandwell has a vision that 2030 is a thriving, optimistic and resilient community.

"It's where we call home and where we're proud to belong - where we choose to bring up our families, where we feel safe and cared for, enjoying good health, rewarding work, feeling connected and valued in our neighbourhoods and communities, confident in the future, and benefiting fully from a revitalised West Midlands".

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Sandwell Metropolitan Borough Council

This is underpinned by 10 ambitions, those of most relevance to air quality which is listed below:

Ambition 2: “Sandwell is a place where we live healthy lives and live them for longer and where those of us who are vulnerable feel respected and cared for.” Poor air quality is known to be a significant factor in premature deaths; the Committee on the Medical Effects of Air Pollutants estimate that particulate emissions and nitrogen dioxide account for nearly 40,000 premature deaths per year in the UK.

Ambition 6: “We have excellent and affordable public transport that connects to tall local centres and to jobs in Birmingham, Wolverhampton, the airport and the wider West Midlands.” The AQAP will promote the use of low emissions public transport vehicles on these routes to reduce the exposure of residents to air pollution.

Ambition 7: “We now have many new homes to meet a full range of housing needs in attractive neighbourhoods and close to key transport routes.” The AQAP will encourage consideration of air quality issues at the planning stage of new residential developments to ensure that there is no conflict between this ambition and that described in 2.1 above.

Ambition 9: “Sandwell has become a location of choice for industries of the future where the local economy and high performing companies continue to grow.” The AQAP will promote the consideration the impact on air quality at the planning stage of industrial developments to ensure there is no conflict between this ambition and that living healthy lives for longer.

4.2 National Air Quality Plan

The Government states the most immediate air quality challenge is tackling the problem of NO₂ concentrations around roads - the only statutory air quality limit that the UK is currently failing to meet. The issue is particularly experienced in towns and cities which should be healthy places. The UK government is committed to taking action against poor air quality in urban areas. Combined with the wider actions to reduce other harmful air pollution emissions, this plan will help towns and cities to become cleaner and help to grow the economy

The UK government has stated its determination to be at the forefront of vehicle innovation by making motoring cleaner. The link between improving air quality and reducing carbon emissions is particularly important and the UK government will continue to develop solutions which reduce NO₂ and carbon. Central to the UK government’s objective of tackling NO₂ and carbon emissions is its ambition for Britain to lead the world in electric vehicle technology and use. The government will end the sale of all new conventional petrol and diesel cars and vans by 2040. The Government is already committed to investing over £2.7 billion overall in air quality and cleaner transport. It is not imposing additional measures on Sandwell to tackle air quality over and above what is required under the Environment Act 1995

4.3 West Midlands Combined Authority

The West Midlands Strategic Transport Plan, 'Movement for Growth' supports the Strategic Economic Plan (SEP), it aims to greatly improve the transport system to support economic growth and regeneration, underpin new development and housing, and to improve air quality, the environment and social inclusion. It is based on improvements, year in year out, over the long term to an integrated transport system and is made up of four tiers:

- National and Regional
- Metropolitan (Metropolitan Rail and Rapid Transit Network, Key Route Network, Strategic Cycle Network)
- Local
- Smart Mobility

TfWM (Transport for West Midlands) is also developing a series of more detailed policies and strategies, such as to support freight. Other key areas include air quality and to identify measures to support the young, socially excluded and troubled individuals.

The approved West Midlands Freight Strategy and Implementation plan helps to provide TfWM with the tools to work together with businesses, and a programme to deliver a West Midlands that shines as a beacon for best practice in urban logistics management, providing:

- Improved access to the West Midlands by road and rail;
- New ways of managing deliveries which provide businesses and residents with high quality access to goods and services;
- A range of techniques to reduce emissions, noise, and congestion caused by goods vehicles;
- Support for the introduction of very low emissions or zero emissions delivery systems; and
- Commitment to deliver these improvements through a partnership with businesses and government.

4.4 Highways England

The strategy was published in August 2017, it recognises that in delivering the £100 million road investment programme funded by the Government, it needs to ensure that all activity on our roads is delivered in a way that not only minimises harm, but ultimately improves the environment including air quality. Their focus is on exploring new and innovative approaches to improve air quality, design out or mitigate poor air quality in road schemes, build a clear picture of air quality across the network and optimise the use of the road network to reduce congestion.

4.5 Public Health Context

Air pollution affects mortality, from cardiovascular and respiratory conditions to lung cancer. In its report on “The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom”, published in 2010, the Committee on the Medical Effects of Air Pollutants (COMEAP)⁴ estimated the mortality burden of existing levels of air pollution on the population of the UK as being equivalent to 29,000 deaths and an associated loss to the population of 340,000 life-years.

The above findings were updated in February 2016 in a subsequent report “Every breath we take: the lifelong impact of air pollution”⁵ published jointly by the Royal College of Paediatrics and Child Health (RCPCH) and the Royal College of Physicians (RCP). Whilst the COMEAP report estimates the health impact of particulate emissions, the more recent report accounts for the additional impact of nitrogen dioxide on health and estimates that the mortality burden of air pollution is closer to 40,000 deaths per year.

Poor air quality can have an impact on vulnerable individuals such as children and the elderly. Poor air quality has been linked with increased infant mortality, and can make low birth weight births more likely. It has also been linked with the development and exacerbation of asthma amongst children. Some chemicals in air pollution may also be implicated in the development of obesity because it is known that obese people are more sensitive to air pollution. Elderly individuals are more susceptible to the effects of poor air quality, and are at greater risk of diseases such as COPD and pneumonia.

Although air pollution is harmful to everyone, vulnerabilities are heightened among those living, learning and working in the most deprived communities (where higher levels of air pollution can often be found because of proximity to busy roads) due to poor housing and indoor air quality, the stress of living on a low income and limited access to healthy food and/or green spaces. Moving away from an area of high outdoor air pollution may be unaffordable for local residents and some people may not want to leave their homes.

[The Public Health Outcomes Framework \(PHOF\)](#) is a Department of Health data tool for England, intended to focus public health action on two high level outcomes:

- increasing healthy life expectancy
- reducing differences in life expectancy and healthy life expectancy between communities.

⁴ [Committee on Medical Effects of Pollution \(COMEAP\) 2010 – The Mortality effects of Long-term exposure to particulate air pollution in the UK](#)

⁵ 2016 The Royal College of Paediatrics and Child Health and Royal College of Physicians. “Every breath we take: the lifelong impact of air pollution”

Sandwell Metropolitan Borough Council

Deaths where poor air quality is a contributing factor would be included in this indicator, including particulate matter and nitrous oxides. Recognising the significant impact that poor air quality can have on health, the PHOF includes an indicator specifically relating to fine particulate matter (PM_{2.5}).

In 2015, 5.9% of all adult deaths in Sandwell were attributable to the particulate matter produced by human activity, which compares poorly with the percentages for England and the West Midlands of 4.7% and 4.8% respectively. Updates can be found [here](#)

The indicator aims to raise awareness of the effect of air pollution on public health. It is intended to encourage promotion of the need for local, regional and national actions to reduce air pollution and to help form a partnership between all delivery partners in pursuit of this goal.

As contained in the Public Health England report “Estimating Local Mortality Burdens associated with Particulate Air Pollution” published in April 2014⁶, the deaths associated with air pollution are 198 for Sandwell and 1460 for the West Midlands as a whole. The data however relates to particulate matter only and not nitrogen dioxide. Using the findings of the “Every breath we take...” report, which states that the national mortality burden due the combination of particulate and nitrogen dioxide air pollution is 40,000 deaths, it could therefore be assumed that Sandwell’s mortality burden due to air pollution is higher than 198 deaths

4.6 Planning and Policy Context

In October 2006 Sandwell produced a Supplementary Planning Document (SPD) entitled “The preparation of transport assessments and travel plans”. The document was aimed at demonstrating how easy it can be to adopt sustainable travel choices, taking into account journey time, safety, public transport frequency, quality, and access for disabled people. The document formerly addressed a need for developers to review proposed transport related emissions whilst simultaneously seeking reductions in greenhouse gases.

In 2017 this SPD continues to offer advice on Transport Assessments and Travel Plans whilst providing assistance to the development process, by:

- promoting a professional and transparent approach to planning
- helping to speed up planning application decisions by avoiding delays
- providing information which could assist developers.

⁶“Estimating Local Mortality Burdens associated with Particulate Air Pollution” published in April 2014 Public Health England report

Sandwell Metropolitan Borough Council

The SPD is due to be updated in 2018 when the Black Country Core Strategy is reviewed. The aim is for online tools (to enable reward scheme and travel plan accreditation) to be included, along with other improvements such as a review of parking standards.

Sandwell also produces a schools Sustainable Modes of Travel Strategy (SMOTS) every year, to provide information on how school journeys can be supported through the use of travel plans, set up by schools using the Modeshift STARS online tool, and through support from other agencies and council services.

In 2014 The West Midlands Low Emissions Towns and Cities Programme (LETCP) published Good Practice Air Quality Planning Guidance to help regional authorities achieve UK Air Quality Objectives and EU Air Quality Limit. Its aim was to pursue a simplified approach to dealing with air quality within the planning system:

- to avoid and reduce vehicle use and encourage a shift to sustainable transport
- to target emission improvements of vehicle fleets through the accelerated take-up of cleaner fuels and technologies
- to discourage the use of high emission vehicles.

It is a mechanism for planning authorities to work with public and private sectors, and other stakeholders, to implement measures which reduce the impact of emissions from traffic and development on public health and air quality.

The WLETCP Good Practice Air Quality Planning Guidance can be found at the [WLETCP](#) homepage:

Following publication of this guidance, the four Black Country Authorities; Dudley, Sandwell, Walsall and Wolverhampton, sought to support existing air quality policies contained in the Black Country Core Strategy (2011), by producing a Supplementary Planning Document (SPD) the “Black Country Air Quality SPD” which, like the planning guidance, is aimed at all those involved in the submission and determination of planning applications with air quality considerations.

This SPD was adopted in September 2016, following wide consultation by the four authorities. The document reinforces and formalises air quality measures introduced by the LETCP good practice planning guidance and strengthens the aims of achieving transparency and consistency to developers, landowners, and the community. Such clarity is particularly beneficial when identifying and calculating the air quality impacts and mitigation requirements for new developments.

The emerging Black Country Ultra Low Emission Strategy and Implementation Plan seeks to bring together and complement a range of existing strategies and policies to promote Ultra Low Emission Vehicles (ULEVs) in the Black Country, with an

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implementation plan to support their delivery. A timetable for adoption of the document is being established.

5.0 Reducing Emissions at Hot spot locations

5.1 Source Apportionment

It is a pre-requisite to recognise and understand the impacts of the transport networks on pollution levels in the area. As a result the WLETCP commissioned a Low Emission Zone (LEZ) technical feasibility study, the objective was to test various scenarios and develop transferrable LEZ models for the West Midlands area. T

The following published documents, reporting this work, are listed below:

- WP1: West Midlands Low Emissions Zones technical feasibility study - scenario modelling base case, produced in 2014, presents the results of dispersion modelling and source apportionment for a number of case study scenarios
- WP1(a): West Midlands Low Emissions Zones technical feasibility study - scenario modelling, produced in 2015, considers a more in-depth look at scenarios, selected from the outcomes of WP1
- WP2: West Midlands Low Emissions Zones technical feasibility study – economic and health impacts assessment.

These documents can be found at the West Midlands [WLETCP](#) homepage:

The documents represent the development of robust methods for assessing the impact of LEZs on air quality and include dispersion modelling and source apportionment.

A section of Bearwood Road, in Sandwell, was used for scenario testing of a typical congested street canyon (high buildings either side of a busy road). When outputs did not produce expected results, an 'in depth' study of the area was commissioned by Public Health at Sandwell in conjunction with Environmental Health. Up-to-date vehicle fleet parameters were required. A series of short term officer surveys were carried out, to investigate traffic patterns to better understand the age and type of vehicle using this street canyon

Survey work showed a considerably older fleet of vehicles using the road than expected and a further detailed traffic survey was carried out. Work was undertaken in 2014 to characterise vehicle fleet makeup and behaviour on Bearwood Road. Vehicle emission factors were determined for the various vehicles using the road, through a combination of automatic number plate recognition (ANPR) camera deployment and video traffic counting. The study showed that, buses were contributing significantly to fleet percentages.

Sandwell Metropolitan Borough Council

The survey work indicated that many buses, frequently traversing hot spot sections of Bearwood Road, were registered 10 years ago or longer. These were found to be significantly influencing emissions profiles and concentrations. The majority of the bus fleet captured by the ANPR cameras were found to be Euro III emission standard or older (registered with the DVLA before 1st December 2004). Euro II emissions standards came into force in 2000, meaning the majority of buses sampled were using 14-year-old engine technologies.

A feasibility study was commissioned in 2015 to look at future emission control options for this location. The source apportionment and ANPR work helped set realistic baseline fleet profiles and scenario testing showed efforts should focus on securing bus fleet improvements on certain bus routes. A set of intervention based timelines were produced relating primarily to NO₂ compliance.

The traffic survey, source apportionment and feasibility exercises carried out by the council over the 2014/2015 period provided sound and transferable model for evaluating and predicting intervention and change at hot spot locations within the borough. It relies on gathering accurate local traffic data to understand what is happening at hot spots and what corrective action can be taken. While it is recognised that not all areas that exceed the annual mean No₂ national objective will benefit from such detailed analysis (and investigation work should only be employed where it cannot be modelled more easily or cheaply via other methods) in certain locations traffic control measures are seen as a realistic and achievable intervention.

This action plan will document where other hotspot locations should be surveyed, fleet appraised and emission profiled with the ultimate aim of scenario testing for control over the next five years.

5.2 Hot spot locations

The council maintains a network of 6 continuous automatic monitoring stations at various locations within the borough and an extensive network of individual diffusion tube monitoring locations, with approximately 100 tubes deployed in 2016. Annual mean results from stations and tubes are calculated and reviewed each year (as part of Sandwell's ASR report to DEFRA).

Diffusive samplers are widely used for indicative monitoring of ambient nitrogen dioxide (NO₂) in the context of Review and Assessment. Diffusion tubes are particularly useful:

- when simple, indicative techniques will suffice;
- to give an indication of longer-term average NO₂ concentrations;
- for indicative comparison with the Air Quality Strategy Objectives based on the annual mean;

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Sandwell Metropolitan Borough Council

- for highlighting areas of high NO₂ concentration; and
- where installation of an automatic analyser is not feasible

They are useful for identifying areas of high NO₂ concentration, particularly when dealing with sources such as traffic emissions, which do not change much from day to day.

In 2015 monitoring data showed that 18 locations where the NO₂ objective (annual mean) of 40µg/m³ continued to exceed the NO₂ objective. These locations can generally be sorted into 8 'zones' where persistent elevated levels of NO₂ have occurred over a number of years and are likely to continue beyond 2010/2022.

The council has identified these 'hot spots' as:

- Straight sections of congested or roads subject to high volumes of passing traffic
- Road junctions and roundabouts handling high volumes of vehicles with associated traffic queues.
- Traffic light / pedestrian controlled sections handling high volumes of vehicles with associated traffic queues.

The air quality at some 'hot spot' locations in Sandwell is further compromised where buildings are situated adjacent to pavements of busy roads (as is the case at Bearwood Road). Normal dispersion of vehicle emissions can be restricted where 'street canyons' exist.

Areas where NO₂ objective has been exceeded (and elevated levels of airborne particulate are located close to roads and junctions where traffic flow is reduced and these are the locations where Sandwell has focussed its efforts.

Actions detailed in this plan aim to focus efforts on these seven areas and will present tangible steps to reduce pollutant concentrations in the shortest possible timeframe. Some actions will identify additional assessment needed to further understand or test hypotheses but all actions are aimed at intervening where objective concentrations are known to be exceeded, reversing any upward trends and bringing down concentrations of pollutants (to below the 40 µg/m³ for NO₂).

Sandwell Metropolitan Borough Council

5.21 Ranking of locations

Table 3 below shows the 18 highest NO₂ annual mean concentrations (NO₂ diffusion tube exposure and analysis results) in Sandwell from January to December 2015.

Tube Code	Zone	Location	2015	2014	2013	2012	2011	2010
C12A	1	Blackheath	49.7* (1)**	50.3 (2)	49.3 (2)	52.8 (3)	51.2 (2)	54.4 (7)
C10D	2	Bearwood Rd	48.0 (2)	49.0 (4)	60.8 (1)	59.7 (1)	49.8 (4)	66.4 (1)
BE	3	Birmingham Road	46.0 (3)	51.2 (1)	49.2 (3)	52.3 (4)	45.5 (9)	57.0 (2)
MA	Isolated tube	Mallin Street	45.5 (4)	40.7 (22)	39.4	39.1	34.0	46.7
ZQ	4	Scott Arms	44.3 (5)	49.5 (3)	46.6 (7)	47.1 (9)	41.9 (18)	51.8 (13)
ZR	4	Scott Arms	44.3 (6)	45.8 (6)	44.2 (13)	47.8 (7)	45.4 (10)	48.7
OJ	2	Bearwood Rd	43.8 (7)	44.0 (11)	41.1 (23)	36.1	42.1 (17)	55.2 (6)
C15A	Isolated tube	Gorsty Hill Road	43.0 (8)	41.4 (20)	49.2 (4)	38.7	46.9 (8)	56.3 (3)
GA	3	Birmingham Rd	42.4 (9)	44.8 (9)	42.4 (16)	45.9 (15)	38.6	49.4
BG	3	Birmingham Rd	42.4 (10)	42.0 (17)	40.0	40.6	36.5	47.4
C10A	2	Bearwood Road	42.1 (11)	45.6 (7)	46.8 (6)	47.5 (8)	42.8 (15)	55.5 (5)
GC	3	Birmingham Rd	41.7 (12)	45.0 (8)	41.6 (19)	46.0 (14)	39.5	49.7 (24)
EF	5	Bromford Lane	41.3 (13)	34.4	36.2	37.8	32.5	41.3
BF	3	Birmingham Rd	41.2 (14)	42.2 (16)	40.2	46.7 (12)	39.6 (30)	51.0 (17)
BS	3	Birmingham Rd	40.7 (15)	44.4 (10)	40.8 (25)	47.1 (10)	38.9	49.7 (25)
C1A	6	All Saints Way	40.5 (16)	31.3	30.9	35.1	34.0	43.9
OD	2	Bearwood Rd	40.4 (17)	41.8 (18)	44.5 (11)	43.1	39.1	48.9
GB	3	Birmingham Rd	40.3 (18)	43.3 (13)	45.4 (9)	46.0 (13)	38.5	50.1 (20)
2015 Compliant tubes (and areas)								
C12D	1	Blackheath	39.7 (19)	42.7 (15)	44.2 (14)	53.4 (2)	47.1 (7)	53.3 (10)
N1A	5	Bromford Lane	39.7 (20)	35.8	35.5	39.9 (45)	35.2	44.6
C1D	6	All Saints Way	39.2 (21)	42.9 (14)	45.5 (8)	48.5 (5)	40.1	52.6 (11)
C11D	Isolated tube	Marketplace Blackheath	39.2 (22)	35.8	32.5	40.5	40.9 (22)	49.6
C4D	7	Kelvin / Trinity Way Roundabout	39.1 (23)	40.4	42.8 (15)	48.2 (6)	40.5 (24)	48.0
BP	3	Birmingham Rd	39.0 (24)	39.9	37.6	41.6	37.3	47.7
OB	2	Bearwood Rd	38.5 (25)	43.4 (12)	47.4 (5)	46.9 (11)	38.3	47.4

Grey cells indicate where the annual mean objective for NO₂ has been exceeded.

**Green brackets indicate previous years' rankings

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5.22 Zones where the NO₂ objective has been exceeded.

Nearly all of the 18 diffusion tube locations identified in the table above are associated with a particular zone of interest currently being scrutinised by the council and dealt with in detail below.

Each zone and its corresponding graph shows an extrapolated trend line forecasting NO₂ levels. Though many trend lines show a downward direction in pollutant concentrations, upward forecasting is projected in some areas showing an increase rather than a decrease in NO₂ levels. Priority is given to zones where the objective has been exceeded.

The following table provides a summary of completed and planned actions for each zone.

5.3 Sandwell Key Priority Zones

The following table provides a summary of completed and planned actions for each zone.

Table 4 – Sandwell Priority Zones		
Location	Actions completed/on-going	Planned actions
Zone 1 Blackheath High Street/Powke Lane	Blackheath by pass Red route scheme Traffic management scheme to maximise use of by pass	Local fleet profiling exercise, including source apportionment study using ANPR to age and type of vehicles using this road. (2018)
Zone 2 Bearwood Road	Technical feasibility study producing contour map of NO2 levels and forecast air quality impacts and improvements of low emission strategies and scenarios. Red rout scheme Hagley Road Technical f Traffic signal upgrade at junction of Sandon Road/Bearwood Road to reduce vehicle waiting times and increase efficiency of pedestrian crossing points.	Work with bus operators and Transport for West Midlands (TFWM) to encourage the use of cleaner buses on routes passing through the area.
Zone 3 Birmingham Road	A457 Red Route scheme Lane improvements implemented as part of the Oldbury viaduct works	Local fleet profiling exercise (planned 2018) Consideration of segregated cycle track 2018
Zone 4 Scott Arms Great Barr	Bus Route 51 - improvements to traffic flows and reduce queues Bus showcase and service improvements to improve customer experience and patronage Red Route scheme Improved traffic signal timings because of Oldbury Viaduct repairs.	Local fleet profiling planned for 2018
Zone 5 Bromford Lane West Bromwich	Red route scheme Bus improvements – upgrade to bus infrastructure to improve customer experience and patronage. 20 mph speed limit West Bromwich Town Centre Cycle rout around Bromford Road roundabout and kelvin Way approach arm.	Signalised junction at Bromford Road/Fountain Lane to improve safety for cyclists and potentially increase cycle use on route between Oldbury and West Bromwich (2018)

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Table 4 - Sandwell Priority Zones		
Zone 6 All Saints Way West Bromwich	New underpass and major roundabout improvements to Express Way (A41 at Cronehills Linkway Red Route Scheme Bus Service Improvements and Bus Showcase – upgrade to bus infrastructure to improve customer experience and patronage. Segregated cycle route between A41 roundabout and Gladstone Street on both sides of dual carriage way linked by Toucan crossing	Monitoring situation
Zone 7 Kelvin Way/Trinity Way West Bromwich	Red route scheme	Improvements to roundabout 2018
Individual hot spot Mallin Street Smethwick		Local profiling exercise to better understand bus emission impacts at this location. 2018
Individual hot spot Gorsty Hill Blackheath		Local profiling exercise to better understand bus emission impacts at this location. 2018

6.0 Priority Actions

We have already undertaken a considerable amount of work to reduce the impacts of air quality and these are listed below.

6.1 Promote health initiatives that support sustainable transport and positive behavioural change

6.11 Local Sustainable Transport Fund’s ‘Smart Network, Smarter Choices’ programme

- Implementation of sustainable travel measures including cycling, walking, and public transport schemes as part of the regional ‘Smart Network, Smarter Choices’ programme designed to help tackle congestion, reduce emissions and improve the economy. A variety of measures encouraged people who live, work and visit the area to travel sustainably.

Sandwell Metropolitan Borough Council

- Approximately 17 education sites and 11 businesses in Sandwell participated in the 'Smart Network, Smarter Choices' programme from 2012 to 2017 to change their organisations' travel behaviour (from single occupancy car use to more sustainable modes of travel) by implementing site specific Travel Plans. In some instances grant monies were received for the infrastructure upgrades.
- The 'Smart Network, Smarter Choices' programme provided free cycle training for approximately 410 Sandwell residents and provided over 74 free bikes as part of the 'CANDO Bostin Bikes' and 'Bostin Commuter' schemes over a 5 year period to encourage cycle journeys for both leisure and commuting trips.
- Sustainable Travel Initiatives: Smarter choices initiatives will continue to be provided in coordination with Transport for West Midlands (TfWM) via a combination national, regional and local funding and resources.

6.12 Walking and Cycling

- Over 17.5km of cycle routes have been delivered since 2009 to encourage modal shift away from car journeys and on to bikes. The provision of cycle lanes, toucan crossings, towpath improvements, solar powered lighting, and better quality surfacing have supported these projects.
- Sandwell's own 'Discover Sandwell' Webpages provides a hub for all council activities including seasonal walks and cycling events
- The West Midlands Cycle Charter outlines the key principles that all partners will adopt to deliver the required step change in cycling across the West Midlands Metropolitan area. It represents a shared vision and approach that will increase cycling levels across the West Midlands. Sandwell will continue to work with Transport for West Midlands (TfWM) to deliver the actions as part of the cycle charter.
- Enhancement of the borough's cycling and walking network in line with Sandwell's cycling and walking strategies to enable safe and confident active travel for education, commuting, leisure, healthcare and utility journeys.
- Development and improvement of the borough's public rights of way network through working with Sandwell's Local Access Forum.
- Targeted support and information campaigning for schools and workplaces for supported uptake of walking and cycling programmes.
- Bikeability training - delivering a programme of cycling proficiency at schools, for primary and secondary children.
- Child Pedestrian training - practical training at the kerb side for Year 1 child pedestrians.
- 'Beat the Street' council wide health promotion campaign – interactive walking and cycling game to encourage family walking and cycling.
- Number 1 journey - health promotion campaign developed using social marketing tools to deliver a strategy for school journeys. To encourage walking, cycling and modal shift, to reduce school related congestion and to raise awareness of car idling issues.

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6.13 Walking and Cycling Planned Actions

- Sustainable Travel Initiatives: Black Country Walking and Cycling Strategy and Implementation Plan: As part of the West Midlands Cycle Charter Action Plan (approved by the ITA in September 2015) AECOM was contracted to prepare a cycling and walking strategy for the Black Country. The principal output of this strategy will be a pipeline of prioritised infrastructure investments schemes that support walking and cycling to become more attractive as a physical activity and for utility trips. The approach will integrate with land use planning and complementary measures to promote cycling and walking through training, maps and the use of Smarter Choices behaviour change initiatives to remove barriers, whether perceived or real, and assist in creating a strong and sustainable cycling and walking culture.
- Cycle Improvements: Birmingham Rd, Oldbury – between Seven Stars Road and Birmingham Street there are currently some shared cycle facilities, including a toucan crossing. However a segregated cycle route will be investigated for implementation here with a cycle refuge between Broadwell Road and Green Street.
- Cycle Improvements: Scott Arms junction on Newton Road is on Sandwell's cycle proposals map facilitates a route on to Queslett Road (and into Birmingham). The whole corridor will be investigated for implementing better cycling facilities.
- Cycle Improvements: All Saints Way, West Bromwich – Sandwell has an aspiration to secure a segregated cycle route along this corridor and upgrade the crossing between Wilford Road and Little Lane (to a toucan crossing) to assist cyclists visiting Sandwell General Hospital.
- Cycle Improvements: Kelvin Way/Trinity Way – Bromford Road to Dawes Avenue currently has shared cycle facilities, however, the implementation of a segregated cycle lane is to be investigated here with a toucan crossing near the junction at Dawes Avenue to either join a cycle route into West Bromwich via Lyng or use the service road to Spon Lane. A crossing facility linking Spon Lane and Grice Street, so that cyclists can avoid the roundabout, will also be considered.

6.14 Bus, Rail and Metro Improvements

- As part of the Local Sustainable Transport Fund (LSTF) the following railway stations and Metro stops in Sandwell implemented Station Travel Plans (STP):
 - Cradley Heath Railway Station
 - Dudley Port Railway Station
 - Rowley Regis Railway Station
 - Sandwell & Dudley Railway Station
 - Wednesbury Parkway Metro Stop

A Station Travel Plan (STP) is a strategy for managing the travel generated by a Railway Station or Metro Tram stop, with the aim of reducing its environmental

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Sandwell Metropolitan Borough Council

impact by promoting sustainable modes of travel as alternatives to single occupancy car use. STPs typically combine measures to support walking, cycling, public transport and car sharing as well as actions to mitigate impacts of car travel such as reducing congestions on the highway network. The Department for Transport's (DfT) 'Delivering a Sustainable Railway' White Paper (2007) demonstrates support for introducing travel plans to stations with the aim of improving station access and reducing traffic on the local road network. Sandwell's initiatives included improved pedestrian facilities at stations, consisting of better signage, better lighting, crossing facilities and a campaign to encourage walking to stations. Improved cycle facilities have been provided at the stations, including the innovative Cycle Hub at Rowley Regis Railway Station with associated cycling marketing campaigns. Car sharing to stations is encouraged by implementing '2+ car-share' parking bays as well the #carsharechallenge social media marketing campaign.

- Bus Partnership: The West Midlands Bus Alliance consists of representatives from the region's bus operators, the Combined Authority, regional council highways and transportation departments, Local Enterprise Partnerships, the Safer Travel Partnership, councillors and Transport Focus. Sandwell will continue to work with Transport for West Midlands (TfWM) and bus operators as part of this alliance to encourage the delivery of cleaner vehicles along bus routes within the borough. The Bus Alliance deliverables specifically related to improving bus emission standards are:
 - 1. By May 2020, bus operators will have invested in at least 350 environmentally-friendly new vehicles
 2. By May 2020, all buses operating across the region will be at least Euro V or VI standard
 3. By 31 December 2019, all buses operating in clean air zones will be at least Euro VI standard, or sooner as required
 4. By May 2020, zero emission buses will be piloted (such as electric or hydrogen) on at least two corridors.
- Strategic Transport Projects: SPRINT is the West Midlands Bus Rapid Transit service which will have higher speed, high priority, higher frequency; limited stopping pattern vehicles (compared to conventional buses). Vehicles will meet the Euro 6 standard.

6.15 Bus, rail and Metro Improvement – Planned actions

- Strategic Transport Projects: The Wednesbury to Brierley Hill Metro Extension aims to overcome the lack of direct rail service between urban centres; reduce congestion within sub-regional centres; reduce poor air quality resulting from road transport emissions; and improve links with the wider transport network, especially for commuter journeys. There are currently funding commitments for

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Sandwell Metropolitan Borough Council

initial development (from the Black Country Local Enterprise Partnership and the West Midlands Combined Authority) and widespread support from local authorities and the business community. It is anticipated that construction of the extension will begin in 2022.

6.16 Car Sharing

- Sandwell continues to promote carsharesandwell.com, which enables the general public and people based at specific workplaces to find people to share similar journeys in order to reduce the volume of cars using the highway network. Use of carsharesandwell.com will continue to be offered to businesses across Sandwell and more specifically to SMEs with fewer than 250 employees for whom this is a free service to encourage car sharing and assisting. The car share scheme currently has over 650 members (as of February 2017) and has resulted in a saving of 16,265 miles and 3 tonnes of CO₂ since August 2016 (over a 6 month period). Forecasts show the scheme will achieve 230,828 mileage savings and 45 tonnes of CO₂ over the next 12 months. (Statistics courtesy of liftshare.com).

6.17 Travel Planning

- The council's on-going work – at schools and workplaces, both through planning applications and on a voluntary basis, to reduce the need to travel and cutting unnecessary car use by encouraging sustainable travel by walking, cycling, public transport use and car sharing.
- Use of online tools provided by Modeshift at schools (STARS) and workplaces (STARS) to establish travel plans as “living documents” that are updated and monitored as part of planning application requirements or on a voluntary basis.
- See Priority 2 sustainable transport initiatives for other planned actions (**all**

6.2 Reduce congestion and minimise transport emissions through traffic management and highway improvements.

6.21 Motorway improvements

- Junction 2 M5, now has Urban Traffic Control coverage. The Black Country Urban Traffic Control Centre (BCUTC) manages and coordinates traffic signals on the highway network using CCTV cameras to monitor the traffic conditions. Variable Message Signs (VMS) pass information to the travelling public and provides direct communication with media outlets to assist in disseminating ‘live’ travel information affecting key junctions. Aimed at securing overall motorway efficiency, its purpose is to reduce queuing and associated congestion.
- Active traffic management and speed regulation on M6 – to ease motorway congestion and minimise stop/start bottlenecks.
- Reduced incident response times on M6, 24 hours a day, seven days to traffic – to ease incident related congestion and improve motorway traffic management.

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Sandwell Metropolitan Borough Council

- Ramp metering of junctions (M5 (J1 + 2) and M6 (J11 +16)) – to ease motorway congestion and minimise stop/start bottlenecks and traffic merging problems

6.22 Major Road improvements

- Implementation of Red Route restrictions along major arterial roads (with associated control of parking) in areas such as Bearwood, Blackheath, Great Barr, Oldbury, Smethwick, West Bromwich and Tipton, which reduces engine idling, improves traffic flow, and reduces congestion on these roads.
- Major junction improvements (and new underpass) for the Expressway (A41) at Cronehills Linkway in West Bromwich.
- Major traffic junction improvements at Burnt Tree Island /Dudley Port, Tipton
- Completion of major bypass and traffic management scheme in Blackheath and Cradley Heath.
- Completion of Owen Street underpass project eradicating rail barrier/level crossing queues and associated congestion.
- Road improvements and traffic control systems incorporated at Newton Road/Birmingham Road (A34) junction in Great Barr to ease traffic flows and reduce queue lengths.
- Across the borough a programme of Microprocessor Optimised Vehicle Actuation (MOVA) upgrades are taking place at traffic signal junctions. MOVA traffic control systems are specifically designed to maximise the operational efficiency of a junction / crossing. Unlike other traffic control systems, MOVA systems continually assesses and adjust, according to vehicles approaching a junction, and manage the impact of queuing vehicles, consequently MOVA sites have less queuing and reduced congestion on approaches to junctions.
- Pinch point initiative on the congested areas of the road network.

6.23 Planned major road improvements

- A Major Highway Improvement Scheme has been put forward for Birchley Island consisting of a two-way “Hamburger” junction to reduce congestion and excessive queuing. It is aimed at creating additional traffic capacity, provide good cycle and pedestrian facilities and improve overall safety. Signal control is intended on all entries to and exists from Birchley Island in order to aid pedestrian and cycle movements through the area, which would also be assisted by wider footways and cycle routes around the island. (
- Highway Improvements: It is envisaged that further junctions along the key route network within Sandwell will have Urban Traffic Control coverage by 2022. The Black Country Urban Traffic Control Centre (BCUTC) manages and coordinates the traffic signals on the highway network. The network uses CCTV cameras to monitor the traffic conditions. Variable Message Signs (VMS) pass information to the travelling public and provides direct communication with media outlets to assist in disseminating ‘live’ travel information affecting key junctions. The aim is to improve overall efficiency and operation, reducing queuing and congestion.

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Sandwell Metropolitan Borough Council

- Extend red routes around transport interchanges and town centres
- Consideration of bus lane enforcement related to safety, congestion and air quality.

6.3 To formulate and implement guidance and policy and to work in partnership with key sectors to improve air quality outcomes

- Councillor/committee member training events to secure detailed understanding of air quality issues and council responsibilities, aims and objectives.
- Sandwell is a member of the Defra funded West Midlands Low Emission Towns and Cities Programme (LETCP) – a partnership organisation of seven West Midlands Local Authorities, who work together to improve air quality and reduce carbon emissions across the region

The WMLETCP Group have produced:

- The Good Practice Air Quality Planning Guidance – a model approach to integrate air quality considerations into land use planning.
- The Good Practice Procurement Guidance – how public sector procurement can influence vehicle emissions.
- The Low Emission Zone Technical Feasibility Study – an investigation into different highway scenarios to determine the suitability for a low emission zone.
- The West Midlands Low Emission Vehicle Strategy (LEVS) – is currently being finalised and sets out the aims for creating a low emission future. The LEVS will form part of the newly adopted West Midlands Strategic Transport Plan “Movement for Growth”, which will be implemented by the West Midlands Combined Authority (WMCA).
- All reports produced by the LETCP can be found on the [LETCP](#) website:
-
- Partnership working with senior officers at West Midlands Combined Authority (WMCA) / Transport for West Midlands (TfWM) to recognise and working towards goals contained in the West Midlands Strategic Transport Plan “Movement for Growth” approved by the West Midlands Integrated Transport Authority (ITA) in 2015 and then adopted by the West Midlands Combined Authority in 2016.
- Integrated working between Environmental Health and Public Health disciplines for to achieve research, intelligence and health protection goals.
- Sandwell MBC Air Quality Working Group including transport, planning and public health representatives and chaired by Environmental Health (including detailed internal consultation and discussion with development control and strategic planning officers and on new air quality guidance and supplementary planning documentation).

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Sandwell Metropolitan Borough Council

- Sandwell Safer 6 campaign a cross departmental campaign promoting safety, crime prevention and healthy living to people of all ages.

6.4 To improve understanding of pollutant behaviour at hot spot locations

- WLETCP Low Emissions Zone (LEZ) Technical Feasibility Studies [WP1 and WP1 (a) undertaken across the region to investigate the feasibility of creating a transferrable LEZ model for the West Midland. Follow up Technical Feasibility Study WP2 to look at Economic and Health Impacts produced.
- Local fleet profiling exercise: Bearwood Road survey and emission source apportionment study (using ANPR) involving vehicle fleet profiling to establish age and type of vehicles using the street canyon.
- Technical feasibility study undertaken to understand pollution contours and boundaries and to forecast air quality impacts and improvements from various low emission strategies and scenarios.
- Implementation of actions identified in Bearwood Road Technical feasibility study to be secured and implemented.

6.41 Planned work on hot spots

Develop air pollution model to identify additional hot spots and further assessment at locations already identified.

6.5 To review and improve the Council's impact on air quality through a review of internal fleets, taxi licencing and employee vehicle use.

- Council run low emission vehicle trials and employee demonstration days have been provided (both commercial and domestic vehicles) to inform and promote ultra-low emission vehicle technologies.
- Meetings across departments underway to secure better data and information review of fleet make-up across the council.

6.51 Planned work - Council fleet

- To carry out a full review of internal council vehicle fleets (both grey and commercial) across all departments to catalogue and understand fleet make-up, age and emission profiling
- The use review results along with vehicle use and mileage data to formulate department specific strategies for prioritising fleet improvement setting emission based targets for reducing air pollution impacts of the Council fleet. **(2018)**
- To review Council re-fuelling infrastructure and provision to determine the best and most effective ways to influence and improve lower and ultra-low emission vehicle uptake and use. This will include a review of electric charging and other low emission re-fuelling provision. **(2018)**
- To carry out a full review of the taxi fleet licenced by Sandwell Council and understand fleet make-up, age and emission profiling. **(2018)**
- The use review results to formulate a low emission taxi strategy. **(2018)**
- To review taxi re-fuelling infrastructure and provision to determine the best and most effective ways to influence and improve lower and ultra-low emission vehicle uptake and use. Again, this will include a review of electric charging and other low emission re-fuelling provision. **(2018)**
- To repeat and strengthen efforts to engage, in-house, with Sandwell Council employees to promote and educate on low and ultra-low emission vehicle technologies. To improve understand and where appropriate address the perceived barriers presented by low emission technologies, and to work with departments across the Council to improve low and ultra-low vehicle uptake. **(2018)**

6.6 Priority Actions

6.61 Priority 1 – Hot spot locations

- To secure an up-to-date) air pollution model of the borough and ensure all hot spot locations are identified and prioritised.
- To carrying out detailed trend analysis of locations where the nitrogen dioxide (NO₂) levels currently exceed the national objective (annual mean) of 40 µg/m³
- To complete necessary source apportionment work at hot spot locations where a profile of traffic fleet makeup and age are needed.
- Where bus emissions are found to be a significant contributor in a zone, the Council will negotiate, prepare and implement a bus improvement programme. Where other vehicle modes (private / light / heavy) are found to be significant then corresponding efforts will be made to influence fleet improvements in those areas.

Sandwell Metropolitan Borough Council

- To review transport planning and traffic / infrastructure management at each hot spot location and identify where additional resource is needed to achieve compliance
- To prepare a programme of works for each zone, identifying timeframes and goals for each intervention identified.
- To evaluate, on a case by case basis, the effects of new actions (particularly at hot spot locations) identified in this document, review and comment on any impact / progress and report this annually in the Council's the Annual Status Report (ASR).

6.62 Priority 2 - Sustainable transport initiatives

- To continue the good work promoting walking, cycling and sustainable public transport initiatives currently undertaken by the Council.
- To undertake further wide and varied health promotion campaigning (including car free walking and cycling promotion) to increase healthy uptake of activity and encourage sustainable travel. To actively encourage car sharing, low emission vehicle use and modal shift to public transport through various Council lead initiatives and programmes.
- To continue the sound progress achieved in the area of planning and development control and to adopt 'next stage' measurement and review work.

6.63 Priority 3 – Review the Council's impacts on air quality

- To carry out a full review of internal Council vehicle fleets (both grey and commercial) across all services in order to catalogue and understand fleet make-up, age and emission profiling.
- The use review results along with vehicle use and mileage data to formulate department specific strategies for prioritising fleet improvement setting emission based targets for reducing air pollution impacts of the Council fleet.
- To review Council re-fuelling infrastructure and provision to determine the best and most effective ways to influence and improve lower and ultra-low emission vehicle uptake and use. This will include a review of electric charging and other low emission re-fuelling provision.
- To carry out a full review of the taxi fleet licenced by Sandwell Council and understand fleet make-up, age and emission profiling.
- The use review results to formulate a low emission taxi strategy.
- To review taxi re-fuelling infrastructure and provision to determine the best and most effective ways to influence and improve lower and ultra-low emission vehicle uptake and use. Again, this will include a review of electric charging and other low emission re-fuelling provision.
- To repeat and strengthen efforts to engage, in-house, with Sandwell Council employees to promote and educate on low and ultra-low emission vehicle technologies. To improve understand and where appropriate address the

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Sandwell Metropolitan Borough Council

perceived barriers presented by low emission technologies, and to work with departments across the Council to improve low and ultra-low vehicle uptake.

7.0 Development and Implementation of Sandwell Council's AQAP

7.1 Consultation and Stakeholder Engagement (To be completed after consultation process)

In developing/updating this AQAP, we have worked with neighbouring local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table . In addition, we have undertaken the following stakeholder engagement:

- Website
- Articles in local newspaper
- Questionnaires distributed directly to households along major roads
- Consultation with community groups

The response to our consultation stakeholder engagement is given in Appendix A.

Table 5 – Consultation Undertaken

Yes/No	Consultee
Yes	the Secretary of State
Yes	the Environment Agency
Yes	the highways authority
Yes	all neighbouring local authorities
Yes	other public authorities as appropriate, such as Public Health
Yes	bodies representing local business interests and other organisations as appropriate
Yes	Local communities

7.2 Steering Group

Partners from the Environmental Health, Public Health and Regeneration & Economy departments of Sandwell MBC meet quarterly to discuss air quality issues and potential air quality improvement measures, along with updating the Air Quality Action Plan when required. The meetings have recently included input from the Strategic Health Advisor based at Transport for West Midlands who has been seconded temporarily from Public Health England.

Air quality improvement in Sandwell is supported policies contained in the Black Country Core Strategy and the subsequent Black Country Air Quality Supplementary Planning Document (adopted September 2016)

The link between Public Health and Planning is being strengthened both locally in Sandwell through the Healthy Urban Development Officer and regionally through the West Midlands Health and Planning Group. There is therefore an opportunity to address air quality issues by healthy urban planning through engagement with planning and transportation planning colleagues.

7.3 AQAP Measures

Table 6 shows the Sandwell Council AQAP measures. It contains:

- a list of the actions that form part of the plan
- the responsible individual and departments/organisations who will deliver this action
- estimated cost of implementing each action (overall cost and cost to the local authority)
- expected benefit in terms of pollutant emission and/or concentration reduction
- the timescale for implementation
- how progress will be monitored

Within Table 6 the actions are evaluated in relation to their expected impact on:

- air quality (i.e. reduction in emissions or concentrations);
- cost; and
- implementation timescale.

Air quality impacts have been classified to represent 'low' to 'high' impact. For each action, the expected reduction in annual mean NO₂ concentrations has been determined based on professional judgement, drawing, wherever possible, on experience gained from other studies. The following classification scheme has been used:

Low: imperceptible (a step in the right direction). Improvements unlikely to be detected within the uncertainties of monitoring and modelling;

Medium: perceptible (a demonstrable improvement in air quality) improvement of up to 2 µg/m³ NO₂, which could be shown by a modelling.

High: A significant improvement, greater than 2 µg/m³ NO₂. It can be clearly demonstrated by modelling or monitoring (a significant improvement is likely to be delivered by a package of options rather than by a single intervention).

The implementation of the measures set out in this Action Plan are dependent on securing a sufficient and consistent level of funding both to support any additional staff that may be required, and to deliver the programme. The aim is to provide a broad indication of costs so that the proposed measures can be ranked according to the cost and the expected improvement to air quality. Costs are represented as follows:

'Very Low' cost is taken to be £10K and under;

'Low' cost is taken to be £10 - £50K; 'Medium' cost is £50 - 500K;

'High' cost is £500K - £2 million;

'Very High' cost is over £2 million.

Table 6 – Air Quality Action Plan Measures

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
1	Develop Air Pollution model of Sandwell to identify hot spots	Other	Sandwell MBC (Environmental Health)	2018	2018	Completion of model	Not applicable	Not applicable	2018		Low
2	Hot spot locations Review transport planning and traffic infrastructure at each location and identify and implement programme of work where practicable	Other	Environmental Health	2018	2018	Reducing emissions	Medium at hot spot locations (long term)	Not applicable	2023	-	To be determined
3	New SMBC vehicles purchased are to Euro 5 and 6 standard Monthly fuel reports are produced and regular user group meetings held to try and improve efficiency	Vehicle Fleet Efficiency	Sandwell MBC Environmental Health and	Completed	On-going	Improved Vehicle Fleet Makeup	Level of reduction	On-going - Monthly fuel reports and progress/improvement meetings	On-going	Overall reduction in vehicle emissions	To be determined

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
4	Decrease use of the employee vehicles in Sandwell through the offer of car club/hire vehicles and the use of sustainable modes of travel	Vehicle Fleet Efficiency	Transport for West Midlands /Sandwell MBC	Being developed	Being developed	Reduced mileage claims by local authority staff	Where other systems have been established the bill for mileage claims has been reduced by 30% and cleaner vehicles are used more.	A report on the feasibility of introducing such a system has been presented to the WMCA's Strategic Transport Officer Group	On going		To be determined
5	Council Vehicle Fleet Carry out full review of council vehicle fleet including vehicle types, age and emission profiles	Vehicle Fleet Efficiency and promoting low emission transport	Sandwell MBC Transportation	2018	2018	Report findings	Not applicable	Not applicable	2018		Low
6	Council Vehicle Fleet Review findings of action 5 to formulate service specific strategies for improving their vehicle fleet and setting emission based targets	Vehicle Fleet Efficiency and promoting low emission transport	Sandwell MBC Transportation	2019	2019	Improvement plans developed and implemented	To be determined	Not applicable	2023		To be determined

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
7	Council Vehicle Fleet Review and implementation of electric charging and other low emission refuelling options	Vehicle Fleet Efficiency and promoting low emission transport	Sandwell MBC	2018	2019	Number of electric charging points installed?	Low	Not applicable	2023		To be determined
8	Taxi Vehicles Review taxi fleet licences by Sandwell (including fleet make-up, age and emission profiles)	Promoting Low Emission Transport	Sandwell MBC Taxi Licensing	2018	2018	Report findings	To be determined	Not applicable	2018		To be determined
9	Taxi Vehicles Determine the best and most effective ways to influence and improve low and ultra-low emission vehicle use in taxi fleet.	Promoting Low Emission Transport	Sandwell MBC Taxi Licensing	2018	2018	Number of vehicles that comply with new standard.	To be determined	Not applicable	On going		To be determined
10	To engage with Sandwell MBC employees to promote low and ultra-low emission vehicle technologies	Promoting low emission transport	SMBC	2018	2018	Number of employees switching to Low emission vehicles	To be determined	Not applicable	On-going		Very low

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
11	Improvements of branding to increase attractiveness of public transport	Promoting Travel Alternatives	National Express Midlands / Transport for West Midlands	On-going	On-going	Increased Public Transport patronage	Not known	On-going programme of brand improvement and public awareness, including Safer Network, Improved connections Signage and ease of access.	On-going		Unknown
12	Improving access to information regarding transport options	Promoting Travel Alternatives	Sandwell MBC Transportation / Transport for West Midlands	On-going	On-going	Increased Public Transport patronage	Not known	On-going promotion of branding and services available.	On-going programme of brand improvement and public awareness, including Safer Network, Improved connections Signage and ease of access.	On-going	Very low
13	Major Highway Improvement at Birchley Island (Junction2 M5)	Traffic Management	Sandwell MBC and West Midlands Combined Authority	Planned	2022		To be determined		To be determined		Very High
14	Midland Metro extension (Wednesbury to Brierley Hill)	Alternatives to private vehicle use	WMCA Black Country Executive Joint Committee	2016	2022/23 Monitor development schedule	Increased Public Transport patronage	Level of reduction	Still in the planning stages to secure funding.	2023/24		Very High

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
15	Increased bus lane enforcement (increase number of cameras on buses and static cameras for bus lane enforcement)	Traffic Management	National Express Midlands/S MBC/Transport for West Midlands	Complete	On-going	Increased Enforcement Actions	Minor	Limited Progress within Sandwell, however there are only a small number of bus lanes	On-going	Marginal improvement in emissions due to improved bus journeys.	Not known
16	Improvement of Urban Traffic Control Systems designed to reduce congestion	Traffic Management	West Midlands Combined Authority (WMCA),	On-going	On-going	Reduced Congestion	Low	On-going, use of the Urban Traffic Control. Potential opportunity for further expansion	On-going	Potential reduction at locations where traffic control systems are in place.	
17	Ensure AQ considerations are included in the new Local Development Framework Ensure policies seek to reduce the need to travel and promote the use of modes other than the car	Policy Guidance and Development Control	SMBC / Low Emission Towns and Cities Programme, West Midlands Authorities	Complete	From September 2014 On going	Improve vehicle fleet emission	Medium to high long term	Publication of Procurement and Planning Guidance and implementation intended across the West Midlands Metropolitan Authorities in September 2014	On going	Procurement policies to influence a reduction in road transport emissions Guidance published;	
18	Black Country Low Emission Strategy and Implementation Plan Promotion of Ultra low emission vehicles Create implementation plan to support delivery	Policy Guidance and Development Control	SMBC and Black Country Authorities	Emerging	Emerging	To be established	To be determined	Document being developed	Unknown		To be determined

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
19	Section 106 – Investigate the practicability of S106 agreements being used to secure monitoring funding and balancing measures in applications where AQ is an issue	Policy Guidance and Development Control	SMBC Planning & Environmental Protection	Complete	On-going	Implementation of guidance and appropriate air quality conditions attached to planning permissions.	Medium to High long-term	LETCP Planning Guidance / Black Country SPD state all new development will be required to contribute to offsetting emission creep, plus larger contributions if significant new sources are introduced.	Adoption of the document October 2016, On-going implementation	To protect and enhance air quality through development	Not applicable
20	AQ guidance Provide guidance in relation to air quality for developers to follow when submitting planning applications	Policy Guidance and Development Control	SMBC / Low Emission Towns & Cities Programme, West Midlands Authorities	Complete	On going	Improve vehicle fleet emission	Medium to High long-term	Publication of Procurement and Planning Guidance and implementation intended across the West Midlands Metropolitan Authorities in September 2014	On-going	Procurement policies to influence a reduction in road transport emissions Guidance published;	Not applicable
21	Development Management – continue to consider air quality issues for new planning applications in line with the agreed planning protocol	Policy Guidance and Development Control	SMBC	Complete	On-going	Number of planning application with appropriate air quality conditions	Medium to High long-term	On-going		All planning applications assessed against SPD and Planning Guidance	

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
22	Promotion of Walking	Promoting Travel Alternatives	SMBC	Complete	On-going	Increased uptake of walking for key journeys. Sandwell Travel surveys	Not known	Sandwell MBC Walking Strategy published in 2015. Sandwell Travelwise webpage updated to promote alternative travel	Completed documents, with on-going promotion of walking	Sandwell Travelwise webpage updated to promote alternative travel Travelwise Sandwell	
23	Promotion of Cycling	Promoting Travel Alternatives	SMBC	Complete	On-going promotion of cycling	Increased uptake of cycling for key journeys. Sandwell Travel surveys	Not known		On-going	Sandwell's Cycling strategy is a several years old and would benefit from updating. On-going promotion of cycling on Travelwise	
24	Encourage travel plans for employers, schools & hospitals	Promoting Travel Alternatives	SMBC / National Express West Midlands / Transport for West Midlands	Complete	On-going implementation	Number of travel plans adopted by relevant organisations –including attached to planning applications.	Low to medium long-term	Travel Plan SPD requires certain developments to implement a Travel Plan. This work is on-going, with the number of travel plans implemented increasing annually. Started using online Modeshift STARS and STARS for tools.	On-going	Travel Plan SPD adopted by Sandwell Council. Considered for all relevant planning applications	

[ILO: UNCLASSIFIED]

Sandwell Council Air Quality Action Plan 2018 - 2023

Sandwell Metropolitan Borough Council

Measure No.	Measure	EU Category	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments	Cost
25	Air Quality information on website	Public Information	Information via the Internet & Twitter	Sandwell MBC	On-going	On-going	Not applicable	On going	On-going		Very Low
26	Promote car sharing among residents and businesses in the area	Alternatives to private vehicle use	Sandwell MBC	Complete	On-going	Increased in total participants using the scheme.	Not known	On-going implementation and promotion of the scheme.	On-going	Further publishing of the car share programme, with an increase in the total number of registered users. Sandwell Carshare	
27	Provide air quality information and promote sustainable transport in schools	Promoting Travel Alternatives	Sandwell MBC	On-going	On-going	Increase in sustainable travel modes in schools	Reduction in NO ₂ and PM ₁₀ PM _{2.5} Concentrations	Limited Progress To Date. School Travel Plans are a key element of the planning process, but limited funding available to promote sustainable transport at schools. Started using online Modeshift STARS tool.	On-going	An annually updated Sustainable Modes of Travel Strategy (SMOTS) for schools is required by the Education and Inspections Act (2006) to be produced by all local authorities. SMOTS	

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
eg Chamber of Commerce	Business	eg Disagree with plan to remove parking on High Street in favour of buses and cycles; consider it will harm business of members

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
	Complete table for all measures that will not been pursued.	Add a 2-3 sentence summary for each action

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
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
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
TfWM	Transport for West Midlands
WLETCP	West Midlands Low Emissions Towns and Cities Project