

# Transport and Environment Committee

10:00am, Tuesday, 25 August 2015

## Improving Air Quality in Edinburgh

Item number	7.10
Report number	
Executive/routine	
Wards	All

### Executive summary

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This report seeks approval of the draft Air Quality Action Plan - Progress with Actions 2015 and Updating and Screening Assessment 2015 reports for submission to Scottish Government and partner bodies, as required under the Environment Act 1995.

Nitrogen Dioxide (NO<sub>2</sub>) data for 2014 shows overall improvements of air quality in Edinburgh, with large areas of compliance in Air Quality Management Areas (AQMA). It is intended to leave the existing AQMA boundaries unaltered at this time, and review these again when data for 2015 is available, to ensure improvements are sustained.

Assessment work for the pollutant Particulate Matter (PM)<sub>10</sub> is ongoing with two areas of concern emerging from this work, one in rural Edinburgh (intensive farming) and the other in north east Edinburgh (mixed sources: trans-boundary, traffic and industrial activity).

Good progress is noted with initiatives to reduce bus and freight emissions, increased uptake of electric vehicles and charging points, greater active travel and public transport use, and the installation of 'smart' traffic management at Newbridge Roundabout.

### Links

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Coalition pledges	<a href="#">P51</a>
Council outcomes	<a href="#">CO10</a> , <a href="#">CO18</a>
Single Outcome Agreement	<a href="#">SO2</a> , <a href="#">SO4</a>

## Improving Air Quality in Edinburgh

### Recommendations

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Transport and Environment Committee is asked to:

- 1.1 note the content of this report, particularly in respect of progress with initiatives and actions to reduce emissions from road traffic sources, and the ongoing reduction in general levels of air pollution across the city; and
- 1.2 approve submission of the draft Air Quality Action Plan - Progress with Actions Report 2015, and Updating and Screening Assessment Report 2015 to the Scottish Government, Scottish Environment Protection Agency (SEPA) and Department for Environment Food and Rural Affairs (DEFRA), as required under the Environment Act 1995.

### Background

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- 2.1 Under the terms of the Environment Act 1995, the Local Air Quality Management (LAQM) Framework requires local authorities in the UK and the devolved administrations to undertake a three year cycle of review and assessment of air quality in their areas.
- 2.2 The new cycle commences in 2015 and, in the first phase of the review and assessment programme, the Council must prepare an Updating and Screening Assessment report for scrutiny by the Scottish Government and partner bodies SEPA and DEFRA.
- 2.3 Previously the annual report submission template incorporated a section for local authorities to detail progress with actions and measures to improve air quality contained in their Air Quality Action Plans. The Scottish Government now places greater emphasis on the measurement of actions to achieve improvements in local air quality. This requires that all Councils submit a separate Air Quality Action Plan - Progress with Actions Report 2015 detailing their progress.
- 2.4 The Air Quality Action Plan for Edinburgh is currently being updated and reviewed. The review will ensure the air quality improvement actions in the Council's revised Local Transport Strategy and key outcomes from the Scottish Government's Low Emission Strategy for Scotland are aligned to the Air Quality Action Plan, and are appropriate for recently declared AQMAs.
- 2.5 The Low Emission Strategy for Scotland was subject to a national consultation exercise between January and April 2015. It is anticipated to have a significant

influence on the future shape and direction of all local authority Air Quality Action Plans. A [formal response to the consultation](#) was approved by Transport and Environment Committee on 17 March 2015 and submitted to the Scottish Government.

- 2.6 As part of the implementation of the Low Emission Strategy for Scotland, the Scottish Government is expected in the coming months to invite bids from Local Authorities to participate in a modelling exercise for a Low Emission Zone, and the Council will have an opportunity to submit a bid at that time.
- 2.7 Currently, there are five AQMAs in Edinburgh, focussed on specific areas of concern, and thirty five across Scotland. Aberdeen has three AQMAs for both nitrogen dioxide (NO<sub>2</sub>) and PM<sub>10</sub>, and Dundee has identified the whole city an AQMA for both NO<sub>2</sub> and PM<sub>10</sub>. Glasgow has the city centre and two other areas as AQMAs for NO<sub>2</sub> and have also identified the whole city an AQMA for PM<sub>10</sub>
- 2.8 Edinburgh has not declared any PM<sub>10</sub> AQMAs at this time. The five NO<sub>2</sub> AQMAs are located at City Centre including extensions at St. John's Road, Great Junction Street, Newbridge and Inverleith. The AQMA boundaries extend to 2% of the city area and now include large areas of compliance due to air quality improvements.
- 2.9 The Environment Act 1995 requires local authorities to work with Central Government towards achieving Air Quality Standards by 2015. The Air Quality Standards of particular relevance to Edinburgh are stated below:

#### NO<sub>2</sub>

Annual mean concentration:	40 µg/m <sup>3</sup>
Maximum hourly mean concentration:	200 µg/m <sup>3</sup>
Maximum number of exceedances of hourly mean:	18 per year

#### Particles PM<sub>10</sub>

Annual mean concentration:	40 µg/m <sup>3</sup>
Scottish Government annual objective:	18 µg/m <sup>3</sup>
24-hour mean	50 µg/m <sup>3</sup>
Maximum number of exceedances of 24hr mean:	7 per year

## Main report

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- 3.1 Air quality is monitored for a range of pollutants by automatic air quality monitoring stations, operating at eight fixed sites across the city. Each station costs around £7,000 to operate annually and due to their age are approaching a time when an investment strategy will need to be developed. In particular, the station at Queen Street is approaching the end of its extended temporary planning permission and will need to be relocated. In addition, Nitrogen Dioxide (NO<sub>2</sub>) is monitored citywide using a network of more than 150 Passive Diffusion Tube (PDT) samplers.

- 3.2 The automatic stations monitor pollutants in real time and data is expressed as concentrations averaged over a one hour period. PDT samplers are exposed to the ambient air for one month at a time and then subjected to laboratory analysis to give 12 readings per year.
- 3.3 Due to the specific nature of PDT monitoring, the raw monthly concentration data is subject to a verification and bias correction process at year end. Using standardised UK wide methodology, Edinburgh's data, once verified, feeds into national bias adjustment calculations.

### Nitrogen Dioxide

- 3.4 Assessment of NO<sub>2</sub> data, collected during 2014, suggests an improving picture for air quality in Edinburgh. The automatic monitoring station on St John's Road at Clermiston Road junction, recorded one breach of the short term one hour NO<sub>2</sub> objective. A maximum of 18 hourly breaches are allowable in any one year. This is the second consecutive year the site has been in compliance. If the trend is sustainable then the NO<sub>2</sub> hourly mean AQMA could be revoked, but the NO<sub>2</sub> annual mean AQMA would remain in force.
- 3.5 Across the city, there were no observed breaches of the short term one hour objective value from the PDT monitoring network, indicating a slightly improving trend in areas such as West Port.
- 3.6 Long-term annual NO<sub>2</sub> data trends from PDT's within the five AQMAs continue on a positive improvement trend. The number of PDT sites with levels of NO<sub>2</sub> above the limit continues to fall, and are often related to hotspot areas around bus stops or where bus and other traffic idles at junctions or street canyons.
- 3.7 The Great Junction Street AQMA has shown overall improvement with almost all of the original AQMA in compliance in 2014. However, there are two residual areas of concern in the AQMA extension. One was at a bus stop in Commercial Street, which is a new site, and the other was on the south side of Bernard Street junction. This is shown on the map at [Appendix 1](#).
- 3.8 The 2014 data for the Inverleith AQMA ([Appendix 2](#)) shows that one site, at the west side of the Ferry Road junction, had a value of 40ug/m<sup>3</sup> which meets the 40ug/m<sup>3</sup> limit for NO<sub>2</sub>. This site has improved from 46ug/m<sup>3</sup> NO<sub>2</sub> two years ago. If it remains on trend, which is weather, traffic and bus fleet improvement dependent, it could be anticipated this AQMA may be in compliance when the data for 2015 is reviewed.
- 3.9 NO<sub>2</sub> data from a range of PDTs in St John's Road AQMA shows that it could be reduced in size by 80% to cover only the area of concern around the Clermiston Road junction ([Appendix 3](#)). Similarly in the Central AQMA Queen Street, Leith Walk and Cowgate ([Appendix 4](#)), Easter Road ([Appendix 5](#)) and large parts of Gorgie Road ([Appendix 6](#)) are in compliance with the limit for NO<sub>2</sub>. The site at the west end of George Street, which is no longer a bus route, shows a significant fall from 47ug/m<sup>3</sup> NO<sub>2</sub> in 2012, which breached the limit, to a now compliant 30ug/m<sup>3</sup> in 2014.

- 3.10 It is intended to leave the declared AQMA boundaries unaltered this year, and to review them in light of 2015 data to ensure that improvements are sustained. This will determine which areas are in compliance and as required by law, meet the EU NO<sub>2</sub> standard. The Edinburgh Urban area, amongst some other areas in the UK, was given an extension by the EU for compliance with the 40ug/m<sup>3</sup> nitrogen dioxide annual mean which expired on 31 December 2014. The extension was given because modelling expected the Edinburgh Urban area to be compliant by 2015. To comply with the EU directive, all areas of Edinburgh after evaluation should meet the standard when 2015 data is analysed.
- 3.11 Since the presentation to [Transport and Environment Committee in August 2014](#), half of the area that was approved by Council to be added to the Central AQMA at Clerk Street and Slateford Road is now in compliance, consistent with the general improving trend across the rest of the city. The Regulations were clear that an AQMA must be declared and this report confirms that, as requested by Council, the legal orders formalising the extensions to the City Centre AQMA have been taken forward by officers. As part of the legal process the order will be advertised in the local press.
- 3.12 The declaration of an AQMA enables the development of targeted actions for tackling highly localised breaches. For example the introduction of MOVA (SMART) traffic signalling at Newbridge roundabout to address NO<sub>2</sub> exceedences in the Glasgow Road corridor.
- 3.13 AQMAs also assist the Council and its partners to implement strategic actions which can limit deterioration of air quality in other locations including:
- the replacement and upgrade of older buses with cleaner engine technologies, and their deployment on routes that pass through one or more AQMA;
  - encouraging the use of cleaner road freight vehicles entering or operating in Edinburgh;
  - the deployment of lower emissions vehicles in the Council own fleet (including electric vehicles); and
  - the development of electric vehicle charging points.
- These are strategic actions which have been made possible through the greater integrated working and the leverage of AQMAs.
- 3.14 It is the ambition of both the Council and Scottish Government to arrive at a point where AQMAs are no longer required, and it is anticipated that the evolving Low Emission Strategy for Scotland will assist the achievement of this goal throughout by 2020.
- 3.15 It is important that in taking action to improve air quality, locations where breaches of the limit may develop due to changing circumstances are kept under review. Therefore, two NO<sub>2</sub> monitoring sites have been established at locations towards the southern periphery of the city, at Drum Street and Howdenhall Road. These sites have been identified in anticipation of potential additional

volumes of road traffic in the area due to a new housing development, and where pollutant concentrations modelled by the developers suggest that NO<sub>2</sub> levels may be above 40 ug/m<sup>3</sup>. Also, with the implementation of traffic management changes as part of the Leith Walk improvement programme, an additional NO<sub>2</sub> monitoring site has also been established at Duke Street in Leith as it is expected that these changes may result in increased traffic volumes in this area.

### Particulate Matter (PM<sub>10</sub>)

- 3.16 PM<sub>10</sub> continues to be subject of a Detailed Assessment by the Council on a citywide basis. As previously reported to [Transport and Environment Committee in August 2014](#) and to Scottish Government, the PM<sub>10</sub> Detailed Assessment was severely impacted by technical failures with nationally specified monitoring equipment. These failures, coinciding with the commencement of the assessment, led to substantial delays in progress. The majority of technical issues have now been overcome and data reliability has much improved. Outcomes of this assessment will be reported to Council.
- 3.17 The Scottish Government is progressing a period of national consultation and development on how air quality will be assessed and managed in the future. Of significance for PM<sub>10</sub> in Edinburgh is the Government's intention to amend the Scottish annual mean standard of 18ug/m<sup>3</sup> upwards to 20ug/m<sup>3</sup>, bringing it in line with the World Health Organisation (WHO) standard. Although this may not appear significant, it affects the threshold at which the pollutant requires to be managed.
- 3.18 Revision of the PM<sub>10</sub> standard, expected to be announced by Scottish Government in early 2016, will mean that it is unlikely that a citywide AQMA will be required. As described in previous Air Quality Progress Reports and in presentations to Elected Members, the largest contribution to measured levels of PM<sub>10</sub> arises from pollution sources beyond the city, and in many instances, beyond the country (trans-boundary). Consequently, any action by local authorities to reduce public exposure is limited to the management of local sources that contribute to measured exceedences of the pollutant.
- 3.19 Assessment work for the PM<sub>10</sub> Detailed Assessment Report has identified two emerging areas of concern, one in rural south west Edinburgh and the other in the north east of the city, as discussed below.
- 3.20 The area of the concern in rural Edinburgh relates to intensive farming which modelling suggests may result in a breach of the Scottish annual mean standard of 18ug/m<sup>3</sup>. National UK modelling of intensive farming was carried out against the UK standard annual mean concentration of 40 µg/m<sup>3</sup> PM<sub>10</sub>. Thus, an intensive farm which models a predictive value of say 25 µg/m<sup>3</sup> PM<sub>10</sub> in England would be satisfactory, but would fail to meet the stricter 18µg/m<sup>3</sup> PM<sub>10</sub> in Scotland. Ongoing work is continuing in collaboration with SEPA to identify the

extent of the concern and whether an AQMA may be required in the future to protect neighbouring households through dust reduction measures.

- 3.21 The other area of concern is in north east Edinburgh at Salamander Street. The PM<sub>10</sub> real time monitoring data shows a steady downward trend over the last five years (2010 – 26ug/m<sup>3</sup> to 2014 - 21ug/m<sup>3</sup>) which is currently nearing compliance with the anticipated revised Scottish Government PM<sub>10</sub> standard of 20ug/m<sup>3</sup>. However, the level remains above the current Scottish annual mean standard of 18ug/m<sup>3</sup>.
- 3.22 Figure 1 below shows a monthly plot of PM<sub>10</sub> in ug/m<sup>3</sup> averaged over the last five years. This shows that PM<sub>10</sub> levels peak in March with lower levels in the winter. This is usually caused by high pressure forming over Scotland which pulls in air with PM<sub>10</sub> pollution from central Europe.
- 3.23 By contrast Figure 2 shows nitrogen dioxide, which is more directly associated with road traffic emissions, with peak levels in the winter months and lower levels in spring and summer.
- 3.24 Figure 3 is a composite showing the difference in the times of the year when each pollutant (NO<sub>2</sub> and PM<sub>10</sub>) is at its maximum.

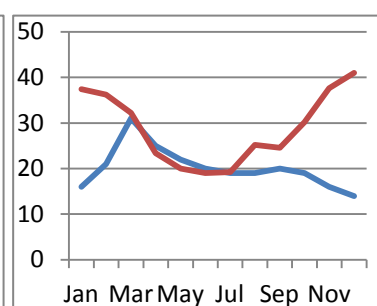
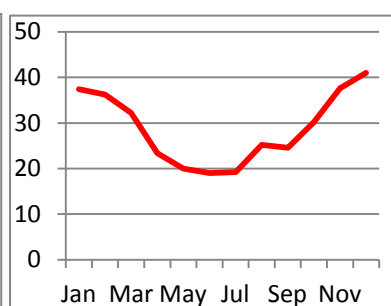
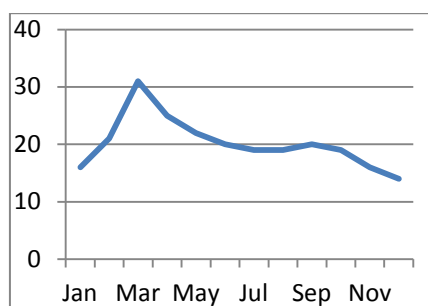


Fig 1 – Monthly PM<sub>10</sub> ug/m<sup>3</sup>

Fig 2 - Monthly NO<sub>2</sub> ug/m<sup>3</sup>

Fig 3 - Monthly PM<sub>10</sub> and NO<sub>2</sub>

- 3.25 The Council, supported by Scottish Government grant funding, commissioned an independent air quality expert to review the issues and to indicate the boundary extent of an AQMA, should this be required. The review found that in addition to trans-boundary sources, local sources may include industrial activity (so-called fugitive sources), and re-suspension, by traffic movement of particulate matter settled on the road, into the air as well as traffic tail pipe emissions. Before making final conclusions it is intended to await confirmation of the Government's revision of the standard, due in early 2016. Should measured levels of PM<sub>10</sub> in 2015 not reduce in line with the current trend, an AQMA will be necessary at Salamander Street, perhaps linking in to the Great Junction Street AQMA at Bernard Street. This will be reported to members in a future update.

## **Progress with actions 2015 for improving air quality in Edinburgh**

### **Bus operations**

- 3.26 Data from the bus companies operating in Edinburgh indicates that they all continue to improve the emissions performance of their fleets.

#### Lothian Buses (Transport for Edinburgh)

- 3.27 Lothian Buses (Transport for Edinburgh) is still the largest service provider in the city. Based on current investment plans, 66% of Lothian Buses fleet is expected to be emission standard Euro 5 or better by the end of 2015 (higher Euro standard vehicles are less polluting).
- 3.28 During 2014, the engine management systems of 25 Euro4 single-deck and one Euro4 double-deck vehicles were re-mapped to bring their emissions standard up to the less polluting Euro5 standard. A further 49 Euro4 double-deck vehicles are expected to be upgraded in this way 2015. This re-mapping or retrofit programme is being assisted by Scottish Government air quality support grant funding facilitated by the Council. The Vehicle and Operators' Services Agency (VOSA) has validated and certified the engine upgrades.
- 3.29 A further evolving initiative is the planned installation of electric charging infrastructure at strategic locations in the city. This will enable specific buses to increase substantially the range over which they can operate in full electric mode. A fleet of specially equipped new diesel electric hybrid vehicles is being purchased to facilitate the use of this technology. The vehicles' operational modes will be controlled remotely via a Global Positioning System (GPS) geo-fencing system, automatically switching their engine power mode from diesel to full electric whenever they enter an AQMA.

#### First (Scotland) East

- 3.30 First (Scotland) East, as the second largest operator, will have nearly 25% of its fleet operating at Euro5 by the end of 2015. This represents an increase in Euro5 vehicles from 10 to 37, since 2013. However, the company also continues to operate a relatively large percentage (54%) of vehicles at Euro3 standard, equivalent to around 84 vehicles.

#### Stagecoach

- 3.31 Stagecoach operates a fleet of around 58 buses which provide inter-city / town services into the centre of Edinburgh along Queensferry Road and St. John's Road corridors. They also operate an airport service from Fife that passes along the A8 Glasgow Road corridor.
- 3.32 Of their fleet operating in Edinburgh 33% is Euro5, while the majority of the remainder is Euro4 (59%) and a small number of Euro3 (9%). The company has 12 Euro6 vehicles on order, and expects the investment to eliminate their more polluting Euro3 vehicles operating regularly in Edinburgh.



## Citylink

- 3.33 Citylink operate a number of inter-city/town services throughout Scotland. These are sub-contracted to a range of different operators. The company has 47 contracted vehicles entering Edinburgh city centre, the vast majority of which are Euro5 (92%) and there are also two Euro6 (4%) and two Euro3 vehicles (4%)

### **ECOSTars Fleet Recognition Scheme**

- 3.34 The original EU-funded Edinburgh ECOSTars fleet recognition scheme project concluded in June 2014 after three years of operation. However, with the support of a Scottish Government air quality support grant, the Council managed scheme was approved to continue until the end of March 2015. The scheme was thereafter further supported by Scottish Government and the Council to enable its continuation until the end of March 2016.
- 3.35 The Edinburgh scheme continues to make good progress. In June 2015, there were 84 registered operator members with a total fleet of 5,048 vehicles. This is a sizeable increase from June 2014 when there were 51 operators registered and a fleet of 3,525 vehicles. It is intended to carry out an emissions evaluation exercise later in 2015 to quantify the benefit to air quality and carbon reductions that the ECOSTars scheme has delivered in Edinburgh since it started in 2011. This will include the contribution of the Council's own fleet.

### **Electric Vehicles and Electric Vehicle Charging Infrastructure**

- 3.36 The Council, together with Edinburgh Partnership and funding support from Transport Scotland/Scottish Government, has continued to locally develop and enhance the national Plugged-in-Place programme. This programme has further increased the range and availability of electric vehicle charging points across the city.

Infra structure	2012	2013	2014	2015
Number of charging heads	8	14	58	89
Number of site locations	5	9	26	38

Table 1 - Electric charging infrastructure progress from 2012 to 2015

- 3.37 The improved availability of charging points, coupled with more electric vehicles in public and private fleets has seen an increase in overall usage of electricity as a vehicle fuel. Since January 2014, the Council has been compiling data on the monthly number of charging sessions and total power uptake at 20 charging sites across the city. The following graph (Figure 4) highlights these promising upward trends.

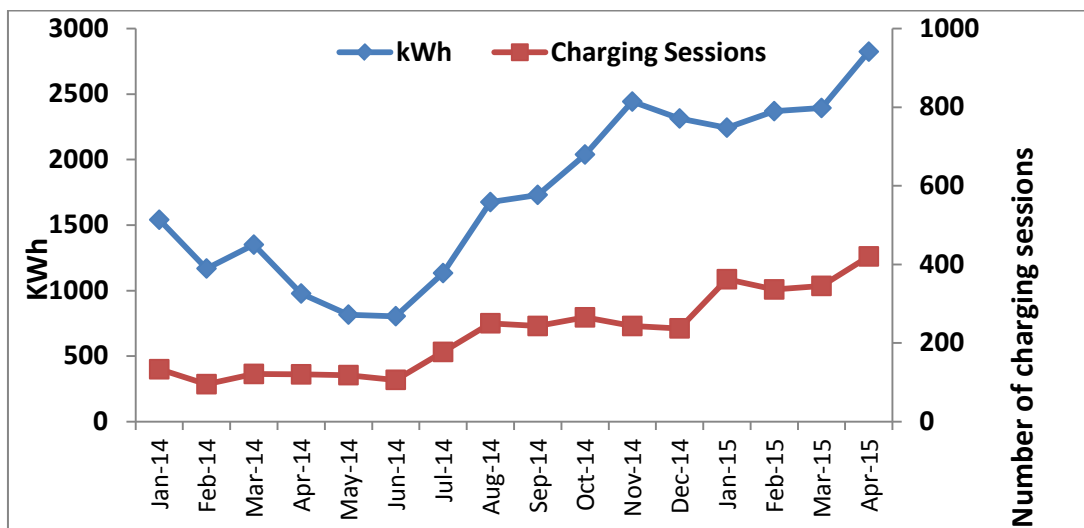


Figure 4 - Power (KWh) used and number of charging sessions from January 2014 to April 2015

### Installation of MOVA (SMART) traffic management system at Newbridge

- 3.38 In order to reduce traffic congestion and improve air quality in the Glasgow Road AQMA, a project to replace the old 'fixed' traffic signalling system at the Newbridge Roundabout with a responsive / adaptive MOVA system is being taken forward by the Council.
- 3.39 From traffic modelling exercises, the MOVA system is expected to deliver much improved traffic flows through this complex junction. In particular, it should significantly reduce the amount of peak-time queuing and associated emissions in the Newbridge / Glasgow Road AQMA. The system is due to be commissioned by the end of September 2015. The impact will be monitored and if successful may allow the Newbridge/Glasgow Road AQMA to be revoked.

### Measures of success

- 4.1 An improvement in air quality in Edinburgh, with targeted revocation of AQMAs associated with nitrogen dioxide.

### Financial impact

- 5.1 This report has no direct financial impacts. The annual £200k cost of monitoring, evaluation and implementing air quality improvements is contained within current budgets.

### Risk, policy, compliance and governance impact

- 6.1 The European Commission launched infraction proceedings against the UK Government for breach of nitrogen dioxide limit values under the EU Air Quality Directive. The European Commission allowed an extension until 1 January 2015 for compliance of the Edinburgh Urban area with the nitrogen dioxide limit value requirements of the EU Air Quality Directive. There is a probability that

monitoring in 2015 will continue to show non-compliance at certain areas of concern. The Scottish Government, as the devolved administration for air quality, have indicated that it would not seek to pass on to Local Authorities any fines imposed by the EU on the UK Government.

## Equalities impact

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- 7.1 This report is a statement of facts regarding ambient air quality in Edinburgh and does not propose changes to current policies or procedures. As such a full equalities impact is not required. The contents have no negative impacts on the Public Sector Equality Duty of the Equality Act 2010.

## Sustainability impact

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- 8.1 The content of this report is a statement of facts and does not in itself promote any environmental impact. The draft background “2015 Updating and Screening Assessment” provides an evaluation and assessment of ambient air quality monitoring data gathered by the Council during 2014.

## Consultation and engagement

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- 9.1 Consultation with the Scottish Government, Scottish Environmental Protection Agency and Department for Environment Food and Rural Affairs following submission of the draft ‘2015 Updating and Screening Assessment Report for City of Edinburgh Council’.
- 9.2 Following approval, the Council will publish the ‘2015 Updating and Screening Assessment Report for City of Edinburgh Council’ on its website.

## Background reading/external references

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[Air Quality Action Plan - Progress with Actions 2015](#) draft for approval  
[Updating & Screening Assessment 2015](#) draft for approval

### John Bury

Acting Director of Services for Communities

Contact: Susan Mooney, Head of Service, Community Safety  
E-mail: [susan.mooney@edinburgh.gov.uk](mailto:susan.mooney@edinburgh.gov.uk) | Tel: 0131 529 7587

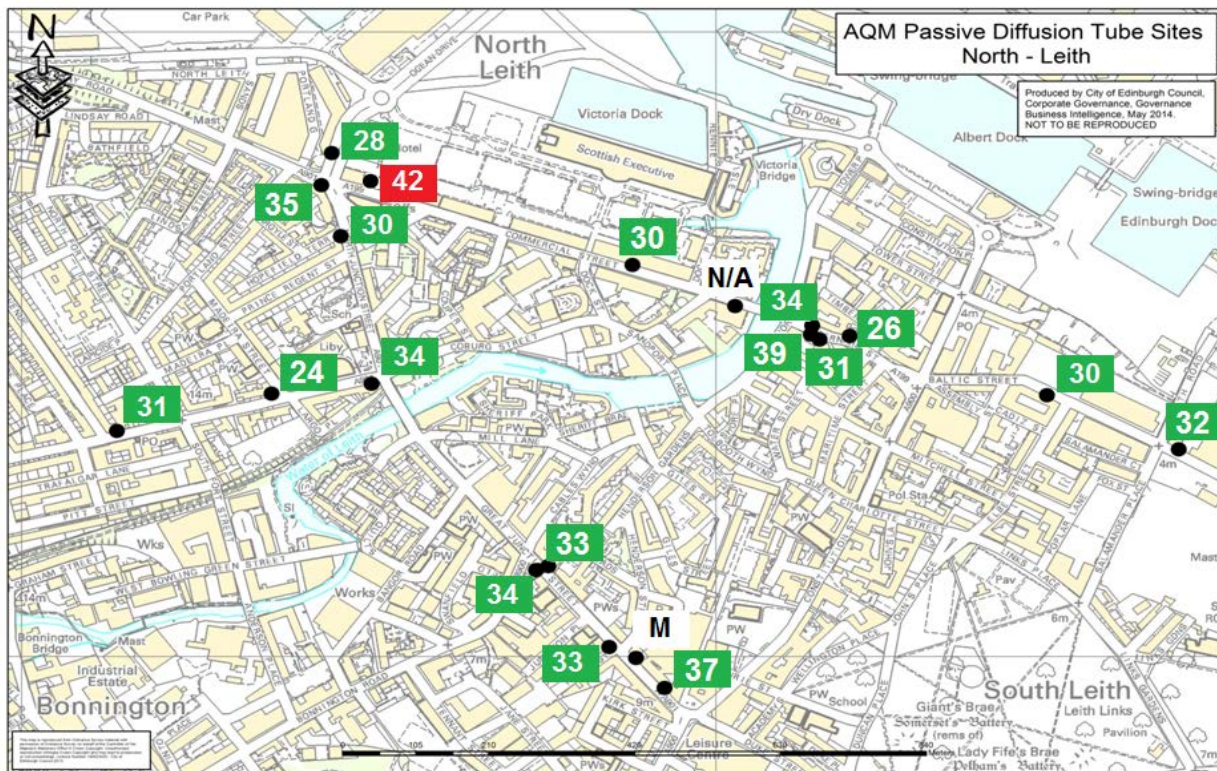
Contact: Robbie Beattie Scientific & Environmental Services Manager  
E-mail: [robbie.beattie@edinburgh.gov.uk](mailto:robbie.beattie@edinburgh.gov.uk) | Tel: 0131 555 7980

## Links

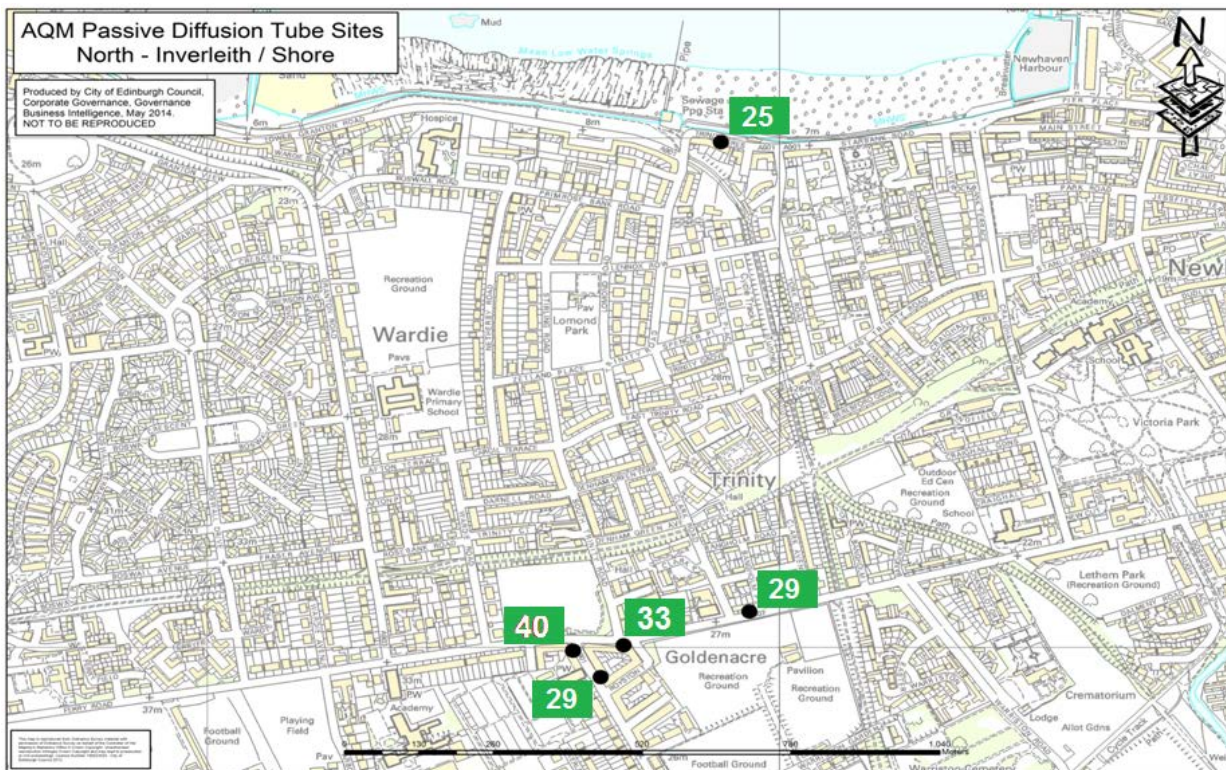
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<b>Coalition pledges</b>	<a href="#">P51</a> - Investigate the possible introduction of low emission zones
<b>Council outcomes</b>	<a href="#">CO10</a> – Improved health and reduced inequalities <a href="#">CO18</a> - Green - We reduce the local environmental impact of our consumption and production
<b>Single Outcome Agreement</b>	<a href="#">SO2</a> - Edinburgh’s citizens experience improved health and wellbeing, with reduced inequalities in health. <a href="#">SO4</a> - Edinburgh’s communities are safer and have improved physical and social fabric
<b>Appendices</b>	Appendix 1 - AQM Passive Diffusion Tube Sites North – Leith Appendix 2 - AQM Passive Diffusion Tube Sites North – Inverleith/Shore Appendix 3 - AQM Passive Diffusion Tube Sites West – St John’s Road and Newbridge Appendix 4 - AQM Passive Diffusion Tube Sites City Centre – North Appendix 5 – AQM Passive Diffusion Tube Sites East – Easter Road / London Road Appendix 6 – AQM Passive Diffusion Tube Sites South West – Slateford / Gorgie

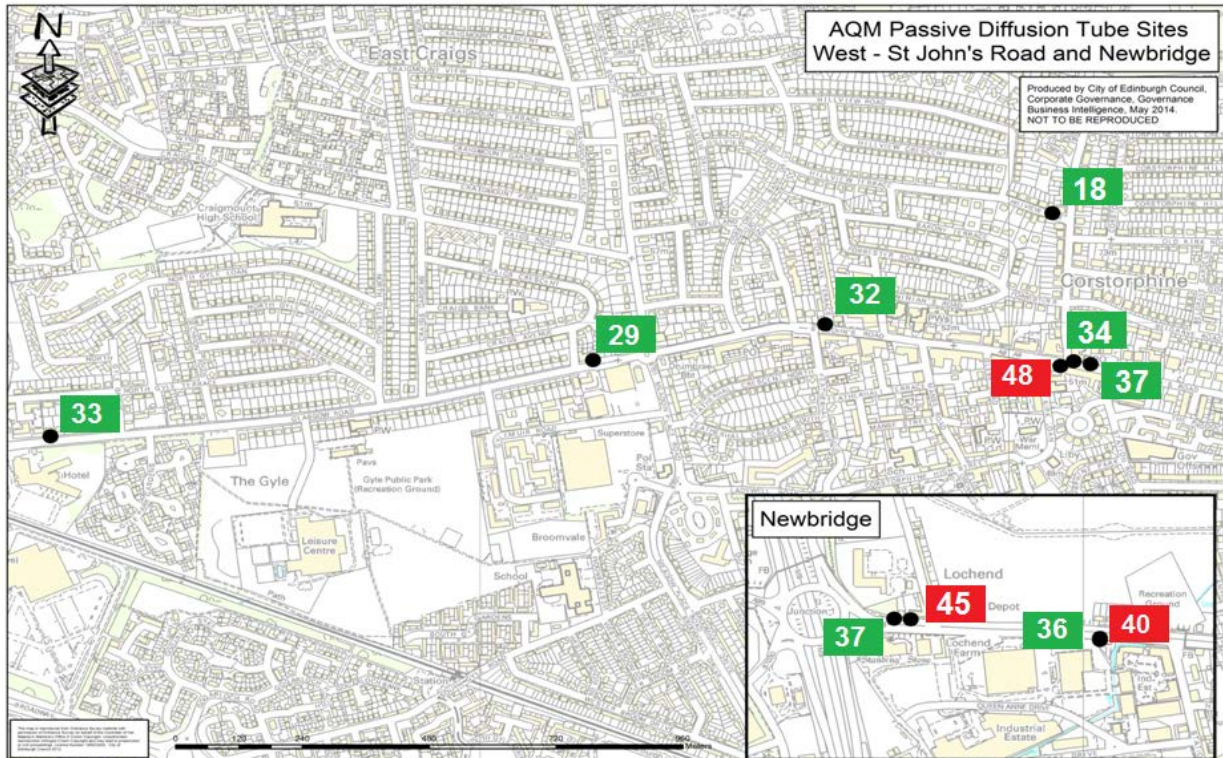
Appendix 1 - AQM Passive Diffusion Tube Sites North – Leith



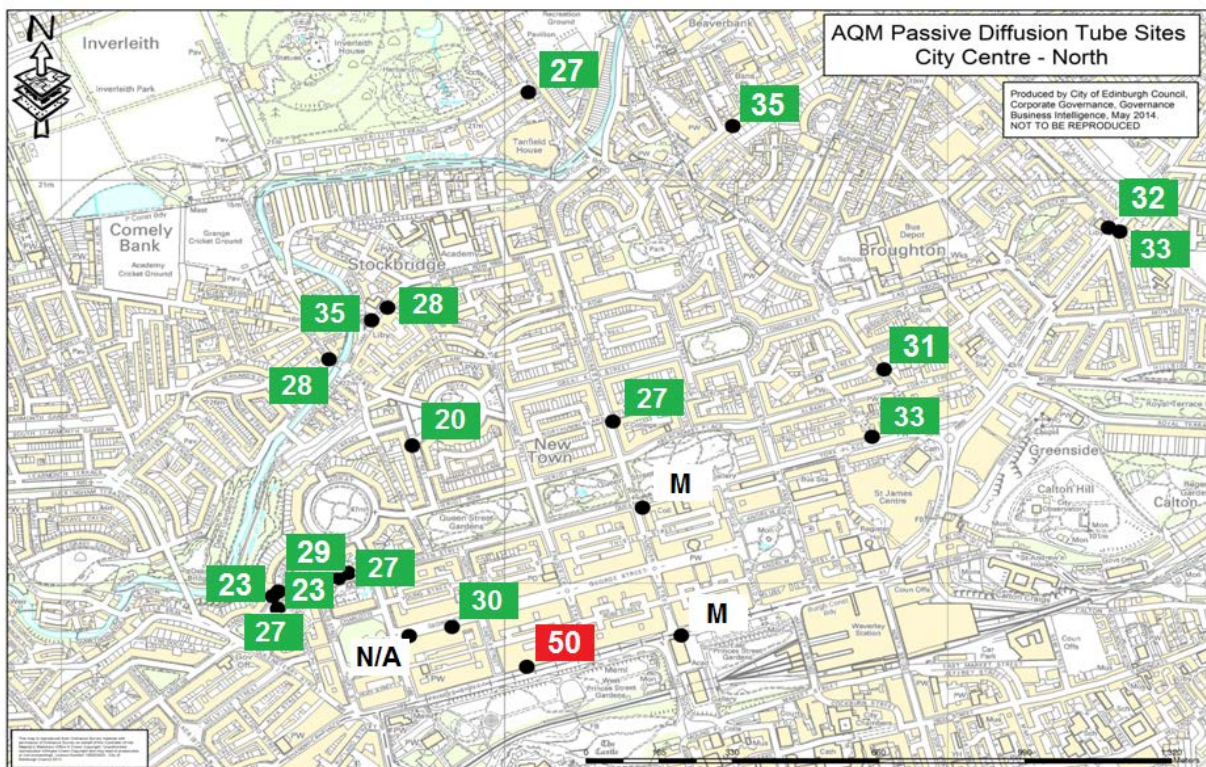
Appendix 2 - AQM Passive Diffusion Tube Sites North – Inverleith/Shore



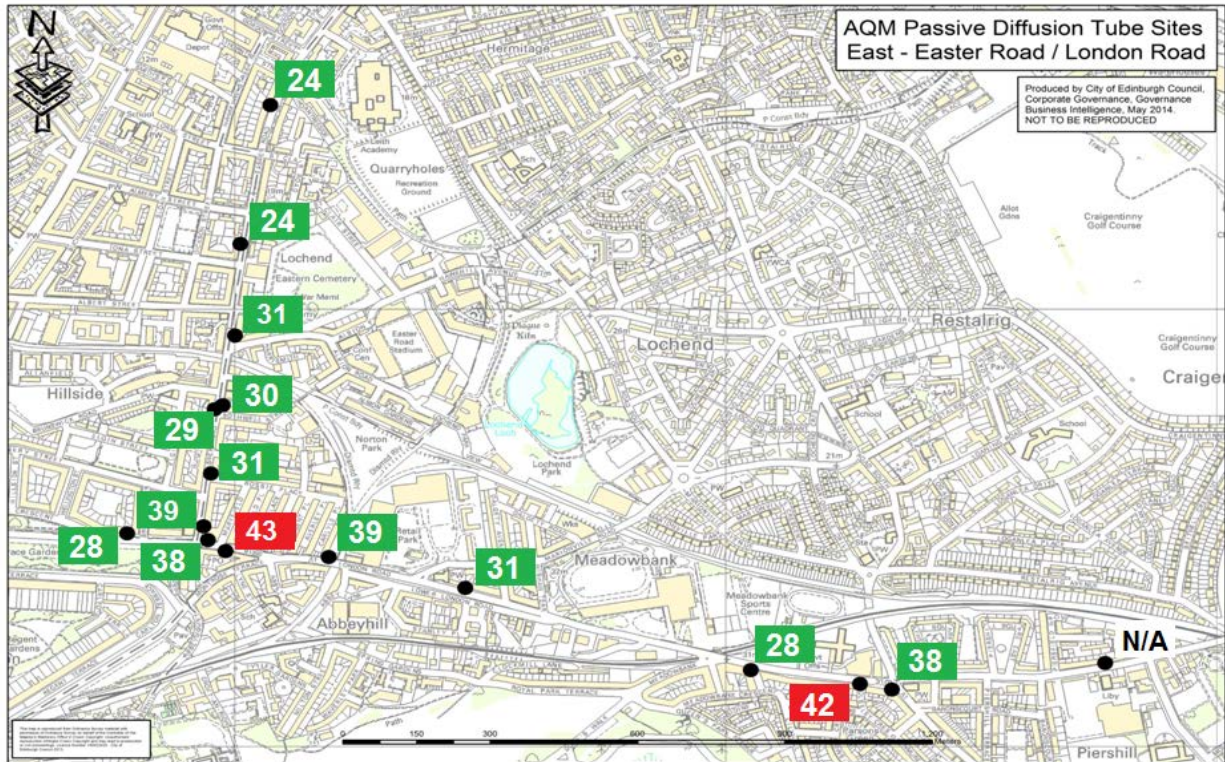
**Appendix 3 – AQM Passive Diffusion Tube Sites West – St John’s Road and Newbridge**



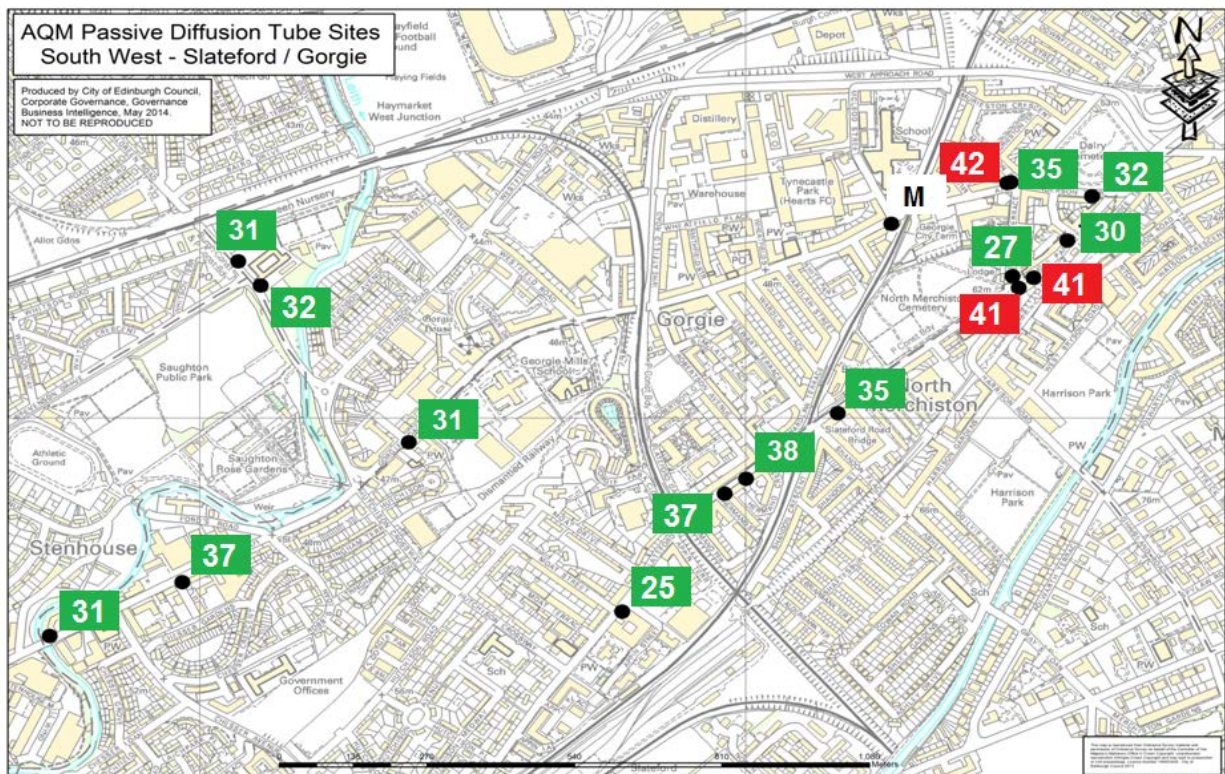
**Appendix 4 – AQM Passive Diffusion Tube Sites City Centre - North**



**Appendix 5 – AQM Passive Diffusion Tube Sites East – Easter Road / London Road**



**Appendix 6 – AQM Passive Diffusion Tube Sites South West – Slateford / Gorgie.**



Appendix 7 – AQM Passive Diffusion Tube Sites -Others

