

# Transport and Environment Committee

10.00am, Thursday, 27 January 2022

## 2021 Air Quality Annual Progress Report

Executive/routine Wards Council Commitments	Executive All
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### 1. Recommendations

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- 1.1 It is recommended that the Transport and Environment Committee notes:
  - 1.1.1 The content of the statutory Annual Progress Report submitted to the Scottish and UK Governments as part of the Local Air Quality Management Framework; and
  - 1.1.2 The air quality improvements within the Inverleith Row Air Quality Management Area and the Council's intention to revoke the associated designation.

**Paul Lawrence**

Executive Director of Place

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## 2021 Air Quality Annual Progress Report

### 2. Executive Summary

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- 2.1 This report provides an annual update on the most recently available ratified annual air quality monitoring data (2020), local pollutant trends and emerging issues in Edinburgh, fulfilling the requirements of the statutory Local Air Quality Management Framework.
- 2.2 The impact of the COVID-19 pandemic has been significant for air quality during 2020. Restrictions on travel resulted in a significant drop in nitrogen dioxide (NO<sub>2</sub>) concentrations at almost all locations across the city with just one location within the city centre breaching the legal objective. The objectives for fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) were not breached, including within the PM<sub>10</sub> Salamander Street Air Quality Management Area (AQMA) for the first year since it was declared in 2017.
- 2.3 Even without the effect of the pandemic, long term trends show concentrations of the main pollutants are decreasing at most locations across the city, albeit there remain hot spot areas of concern, especially in the Central AQMA. Any lasting impact on air quality from changes in travel patterns and behaviour as the country moves on from the pandemic will be better understood once monitoring data becomes available in the future.
- 2.4 The Council intends to revoke the Inverleith Row AQMA due to sustained air quality improvements and future modelling predictions of further improvements with the implementation of the proposed Low Emission Zone (LEZ). Grant funding will be sought in financial year 2022/23 to assist with the revocation process.
- 2.5 The Council has started a revision of its Air Quality Action Plan for NO<sub>2</sub> (the Plan), which will take account of the commitment to develop a LEZ scheme for the city as well as the City Mobility Plan (CMP) and the newly revised national air quality strategy, Cleaner Air for Scotland 2. The intention is for the revised document to also contain a PM<sub>10</sub> Action Plan specifically addressing air quality issues within the Salamander Street AQMA.
- 2.6 Development of the Plan has been delayed due to the prioritisation of the LEZ work as the Plan will require the determination of the final LEZ scheme before it can be drafted for public consultation later this year.

### 3. Background

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- 3.1 The Local Air Quality Management framework is set out in the Environment Act (1995) and obliges local authorities to review and assess air quality in their areas against statutory objectives. When a pollutant fails to comply with an objective, an AQMA must be declared and an Action Plan prepared, detailing measures which will be implemented to improve air quality within the designated area.
- 3.2 The Council is obliged to produce an Annual Progress Report, described herein, to give an update on progress which has been made with respect to actions that may improve air quality in the past year. The Annual Progress Report must also detail the latest annual air quality monitoring data (2020), trends in local pollutants and emerging issues. It is compiled in accordance with the Technical Guidance (updated 2021) issued by the Department of Environment Food and Rural Affairs (DEFRA) and is submitted to the Scottish Government for approval, with peer review by DEFRA and Scottish Environment Protection Agency (SEPA).
- 3.3 In Edinburgh there are five AQMAs declared for breaches of the NO<sub>2</sub> objectives – Central, St John’s Road, Great Junction Street, Glasgow Road (Newbridge) and Inverleith Row. The existing NO<sub>2</sub> Action Plan has been developed to improve air quality and focusses on actions to reduce traffic emissions, which is the main source of this pollutant. Other sources, including emissions from power generation and space heating, contribute to the general background concentrations, especially in the densely populated city centre.
- 3.4 There is one additional AQMA declared for fine particles (PM<sub>10</sub>) in the Salamander Street area, which has a mix of sources including fugitive, industrial and traffic emissions. A draft Air Quality Action Plan for this pollutant is being finalised.
- 3.5 In July 2021, the Scottish Government published its new national air quality strategy – ‘Cleaner Air for Scotland 2 – Towards a Better Place for Everyone’. It sets out around 10 general themes for how the Scottish Government intends to deliver further air quality improvements over the next five years.
- 3.6 In September 2021, the World Health Organisation (WHO) published new, increasingly stringent health-based air quality guidelines. This has followed a marked increase in evidence on the adverse health effects of air pollution. The current, legally binding Scottish Air Quality Objectives for air pollutants are largely based on the previous WHO guidelines published in 2005.

### 4. Main report

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#### **2020 Monitoring Network and Data**

- 4.1 The Council is predominately concerned with the review and assessment of Nitrogen Dioxide (NO<sub>2</sub>) and Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>), as with most United Kingdom (UK) towns and cities. Statutory objectives for these pollutants are defined in Appendix 1. Scotland has set tighter standards for particulates (PM<sub>10</sub> and PM<sub>2.5</sub>) compared with the rest of the UK and Europe.

- 4.2 Edinburgh has a well-established air quality monitoring network (further details on the network are included in Appendix 2).
- 4.3 Generally, improvements in air quality are assessed by analysis of long-term trends as short-term results are influenced by weather and temporary events such as the pandemic travel restrictions, local traffic diversions and roadworks etc.
- 4.4 The impact of the COVID-19 pandemic is significant in terms of the 2020 air quality levels. There may be long term impacts on travel behaviour and traffic patterns across the UK as the country emerges from the pandemic.
- 4.5 Annual mean NO<sub>2</sub> concentration reductions of up to 29.4µg/m<sup>3</sup> were reported throughout all of the AQMAs in 2020, with the greatest reductions being reported in the Central, St John's Road, Glasgow Road, and Great Junction Street AQMAs.
- 4.6 In 2020, there was one site within the Central AQMA (East Norton Place) where the annual NO<sub>2</sub> objective was breached (see Appendix 4); all others were compliant. For comparison there were 24 monitoring locations in 2019 that breached the annual objective for NO<sub>2</sub>.
- 4.7 For the first time since their declaration there were no reported breaches in the statutory objectives for NO<sub>2</sub> in the St John's Road and Glasgow Road AQMAs.
- 4.8 Within the Great Junction Street AQMA, there have been no reported breaches of NO<sub>2</sub> objectives for four years running. It is uncertain what the impact of the new tram extension and proposed traffic management changes in the local area will have on NO<sub>2</sub> concentrations. Therefore, the Council will consider revoking this AQMA once the impacts of these are known.
- 4.9 Within the Inverleith Row AQMA, there has now been three consecutive years of compliance. Air quality modelling of the area has furthermore predicted a sustained reduction of NO<sub>2</sub> concentrations when the LEZ as proposed is operational. The Council therefore intends to revoke the Inverleith Row AQMA.
- 4.10 All monitoring locations reported concentrations below the statutory objectives for particulates PM<sub>10</sub> and PM<sub>2.5</sub> in 2020. Within the Salamander Street AQMA, the annual PM<sub>10</sub> objective was met for the first time since its declaration in 2017.
- 4.11 A significant decrease in traffic volumes was observed across much of the UK for part of 2020, particularly in urban areas: up to 70% reduction across the UK by mid-April relative to pre COVID-19 levels. It has also been estimated by the UK Air Quality Expert Group (AQEG) that during the first lockdown, NO<sub>2</sub> concentrations in urbanised areas decreased up to 30% relative to pre-pandemic levels.
- 4.12 COVID-19 restrictions gave a unique opportunity to see how much air quality could improve if there was a significant change in the source (i.e. petrol and diesel vehicles).
- 4.13 Long term trends show concentrations of the main pollutants of concern are decreasing at most locations across the city. Appendix 3 shows trend analysis for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> from the relevant monitoring stations and the NO<sub>2</sub> AQMAs.

## **Progress with Actions to Improve Air Quality**

- 4.14 The Council is working with the Scottish Government to develop and implement a Low Emission Zone (LEZ) scheme in Edinburgh, alongside Aberdeen, Dundee and Glasgow. LEZs are being developed in close partnership with SEPA and Transport Scotland to assist in the work of the National Modelling Framework (NMF), which provides consistent quantitative evidence for assessment of criteria for each LEZ in Scotland.
- 4.15 It is intended that, once approved, the LEZ will constitute a significant action in the forthcoming revision of the Air Quality Action Plan to reduce NO<sub>2</sub> in the city. The LEZ scheme will be delivered in conjunction with the actions of the CMP and Edinburgh City Centre Transformation programme to ensure wider benefits in both air pollution and carbon reduction are maximised.
- 4.16 The main actions in the current NO<sub>2</sub> Air Quality Action Plan and local transport strategy to improve air quality are based on:
- 4.16.1 Promoting cleaner transport, especially buses and other heavy vehicles;
  - 4.16.2 Adoption of a fleet recognition efficiency scheme for reducing emissions from road freight vehicles;
  - 4.16.3 Improving traffic flow and easing congestion by use of intelligent traffic signalling; and
  - 4.16.4 Promoting modal shift away from car use by means of an Active Travel Action Plan, provision of Park and Rides, Controlled Parking and Priority Parking Areas.
- 4.17 Progress on the measures to improve air quality are presented in a table in Appendix 5.
- 4.18 The bus fleet in Edinburgh continues to improve in terms of emission standards. Scottish Power Energy Network assisted Lothian Buses in introducing four new double deck electric buses into the fleet in 2021. This, alongside 98 new Euro VI buses, means 94% of the Lothian Bus fleet is now Euro VI or better.
- 4.19 The other main operators also continue to make improvements in the emissions performance of the buses in preparation for the proposed LEZ.
- 4.20 In terms of the Council's own fleet, there is a strategic fleet replacement programme being undertaken in order to meet key service requirements and deliver a modern fleet of vehicles which complies with the proposed LEZ.
- 4.21 In comparison to the previous year, there is an increase in the proportion of Euro 6/VI (or better) vehicles in the fleet, from 51% to 60%. There was a three-fold increase in electric vehicles with the requisition of electric cars and vans.
- 4.22 ECO Stars Edinburgh is a voluntary, free to join, fleet recognition scheme that provides bespoke guidance on environmental best practice to operators of goods vehicles, buses and coaches, whose fleets regularly serve the Edinburgh area. The

Council has one of the largest ECO Stars schemes in the UK, with 312 operators covering more than 10,000 vehicles.

- 4.23 Improving traffic flow and reducing vehicle idling times are also measures which help to improve air quality. Traffic management systems that are automatically responsive to traffic flows and demand can help ease congestion by providing more effective control of traffic signals, such as SCOOT.
- 4.24 SCOOT is in place throughout the road network in the city. Ongoing utility works and road improvements can damage inductive loops which then require repair. In the past year a loop repair programme has been initiated with associated staff resource. Loops are also now replaced as a part of the Council's roads resurfacing programme. All these measures have resulted in a significant reduction in the number of damaged loops, giving a corresponding improvement in benefit to SCOOT operations.
- 4.25 The Council continues to support a range of policies and measures that will encourage modal shift away from private car use, including, but not exclusive, of an Active Travel Action Plan, provision of Park and Ride, Controlled Parking and Priority Parking Areas. A number of policies in the CMP will reinforce this work.
- 4.26 An age limitation and vehicle engine (emission) policy for taxis and private hire vehicles has been extended in light of the COVID-19 pandemic, to alleviate pressure on the sector. As of 1 April 2023, any new licensed taxi or Private Hire Cars (PHCs) vehicle (or a replacement vehicle under an existing taxi/PHC licence) is to be Euro 6 engine standard. The extension of these dates allows licence holders to retain existing vehicles for a longer period (18 months) than would previously have been allowed.
- 4.27 The Council is working with Air Quality Consultants to develop the NO<sub>2</sub> Air Quality Action Plan supported by Scottish Government funding.

## 5. Next Steps

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- 5.1 This 2021 Air Quality Annual Progress Report discharges the Council's statutory duty to report on the monitoring and assessment of air quality in 2020, as specified under the terms of the Environment Act 1995 and the associated Local Air Quality Management framework.
- 5.2 The 2021 Air Quality Annual Progress Report is published on the Council's website.
- 5.3 The main priority for the Council in 2022 will be finalising the LEZ scheme for statutory processing.
- 5.4 The Council is currently revising its NO<sub>2</sub> Air Quality Action Plan, in conjunction with the CMP and Cleaner Air for Scotland 2. The LEZ scheme for Edinburgh will form a major aspect of the Action Plan. Development of the Plan has been delayed due to the prioritisation of the LEZ work. The Plan will require the determination of the final LEZ scheme before it can be drafted for public consultation later this year.

- 5.5 The Salamander Street Action Plan for PM<sub>10</sub> will need to be drafted for consultation once the steering group has reconvened. This has also been delayed due to prioritisation of other air quality work. The intention is to present the Plan with the revised NO<sub>2</sub> Action Plan in one Air Quality Action Plan document.
- 5.6 Grant funding will be sought to assist with the revocation of the Inverleith Row AQMA.

## **6. Financial impact**

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- 6.1 This report has no direct financial impacts.

## **7. Stakeholder/Community Impact**

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- 7.1 Formal public consultation and engagement will be undertaken for the development of the Air Quality Action Plans.

## **8. Background reading/external references**

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- 8.1 2021 Air Quality Annual Progress Report (APR) for City of Edinburgh Council  
<https://www.edinburgh.gov.uk/downloads/download/12967/local-air-quality-management-reports>
- 8.2 [Cleaner Air for Scotland 2 – Towards a Better Place for Everyone](#)
- 8.3 [WHO Air Quality Guidelines 2021](#)

## **9. Appendices**

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- 9.1 Appendix 1 Nitrogen Dioxide (NO<sub>2</sub>), Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>) Legal Standards
- 9.2 Appendix 2 Details of Monitoring Network 2020
- 9.3 Appendix 3 Trends in NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>
- 9.4 Appendix 4 Location of where 2020 monitoring has exceeded the annual mean Nitrogen Dioxide Objective (40µg/m<sup>3</sup>)
- 9.5 Appendix 5 Progress on Measures to Improve Air Quality in Edinburgh

# APPENDIX 1

## NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> Legal Standards

### Nitrogen Dioxide (NO<sub>2</sub>), Particle PM<sub>10</sub> and PM<sub>2.5</sub> Legal Standards

Pollutant	Status	Concentration in Ambient air	Measured as	To be achieved by
NO <sub>2</sub>	Scottish & UK Statutory Air Quality Objective and EU limit values	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005*
		40 µg/m <sup>3</sup>	Annual mean	31.12.2005*
PM <sub>10</sub>	Scottish Statutory Air Quality Objectives	18 µg/m <sup>3</sup>	Annual mean	2010
		50 µg/m <sup>3</sup> not to be exceeded more than 7 times a year	Daily mean	2010
	Statutory UK Objective and EU limit values	40 µg/m <sup>3</sup>	Annual mean	2004
		50 µg/m <sup>3</sup> not to be exceeded more than 35 times a year	Daily mean	2004
PM <sub>2.5</sub>	Scottish Statutory Air Quality Objective	10 µg/m <sup>3</sup>	Annual mean	2020
	Statutory UK Objective and EU limit values	25 µg/m <sup>3</sup>	Annual mean	2020
		15% reduction in urban background	-	2010-2020

\* The European Commission allowed an extension until 1 January 2015 for compliance.



## APPENDIX 2

### Air Quality Monitoring Network 2020

#### Automatic Monitoring

- A. Edinburgh has a well-established monitoring regime for NO<sub>2</sub> and PM<sub>10</sub>.
- B. In April 2016, it became a statutory requirement for Scottish local authorities to review and assess the smaller fraction of particles, PM<sub>2.5</sub>. With the help from the Scottish Government Air Quality Monitoring Support Fund, the Council has now established seven additional sites to St Leonards, three of which became operational in December 2020 –Currie, Salamander Street, and Glasgow Road- where aging TEOM particulate monitors were replaced with FIDAS 200 instruments. These analysers monitor a range of particle sizes including PM<sub>10</sub> and PM<sub>2.5</sub>. Full annual data set will be reported for these three stations in the next Annual Progress Report.
- C. As part of a programme to replace aging NO<sub>x</sub> analysers, new NO<sub>x</sub> analysers were installed in February 2020 at the Currie, Salamander Street, and Glasgow Road continuous monitoring locations, supported by the Scottish Government Air Quality Monitoring Support Fund.

#### Non-automatic Monitoring - Passive Diffusion Tubes (NO<sub>2</sub>)

The City of Edinburgh Council undertook non- automatic (passive) monitoring of NO<sub>2</sub> at 183 sites during 2020.

Four monitoring sites were discontinued, and 30 new sites were deployed in 2020 (inclusive of a new triplicate co-location site at Nicolson Street). This also includes five new sites which were a result of relocations. Details of these are shown in The location of the monitoring sites (as well as the Air Quality Management Areas) are provided on the City of Edinburgh Council's website

#### **Newly Commissioned/Decommissioned Diffusion Tube Sites in 2020**

Tube ID	Site ID	New / Removed (during 2020)
16a	Glasgow Road 68 / Façade	Removed (February 2020)
64a	Queensferry Road 552	Removed (February 2020)
153	New Arthur Place 4	Removed (February 2020)
154	Viewcraig Street 9	Removed (January 2020)
121	Inverleith Gardens 2	New (January 2020)
122	Inverleith Gardens 9	New (January 2020)
129B	Queensferry Road/Ramsay Grange	New (February 2020)
64C	Queensferry Road 554 Façade	New (February 2020) – Relocated from 64A
69J	Queensferry Road 554 Roadside	New (February 2020)

119	Bonnington Rd/Great Junction Street 143	New (January 2020)
45b	Ferry Road/1 Madeira Street	New (January 2020)
120	Leith Walk 45-47	New (January 2020)
118	Lindsay Road 198-199	New (January 2020)
116	London Road/Jocks Lodge 23a	New (January 2020)
117	Restalrig Road 1 nr junction	New (January 2020)
51b	Salamander Street 29b	New (January 2020)
94	Chester Street 29	New (January 2020)
123	Dalkeith Road 16/Preston St Primary School	New (January 2020)
93	Drumsheugh Gardens 20	New (January 2020)
128	Dundas Street 9	New (February 2020)
124	East Preston St/Dalkeith Road Junction	New (January 2020)
126	East Preston Street 32	New (January 2020)
125	East Preston Street 3A	New (January 2020)
92	Lord Russell Place 3-5	New (January 2020)
130	Market Street 6	New (February 2020)
95	Palmerston Place 28/Lansdowne Cres	New (January 2020)
96	Palmerston Place 7	New (January 2020)
163	New Arthur Place – lamp post NHH1(permit holders only signage), towards The Pleasance/Dalkeith Road	New (February 2020) – Relocated from 153
162	19 Viewcraig Gardens – parking restrictions sign	New (February 2020) – Relocated from 154
127	West Preston Street 17	New (January 2020)
91	West Preston Street 40	New (January 2020)
63A	540 Queensferry Road - facade	New (February 2020) – Relocated from 63
135b	59/61 Nicolson Street black drainpipe	New (February 2020) – Relocated from 135a
CL16,CL17,CL18	Nicolson Street (co-location)	New (January 2020)

table overleaf. This was part of the continual review and analysis of the network, and in addition to help with development of a local air quality model by the Scottish Environment Protection Agency (SEPA) as part of the National Modelling Framework (NMF).

Diffusion tube monitoring was halted during the March, April and May monitoring periods, due to a combination of the closure of analytical labs and to allow for work practices to be reviewed and adapted to enable officers to undertake the work safely in response to the COVID-19 pandemic.

The location of the monitoring sites (as well as the Air Quality Management Areas) are provided on the [City of Edinburgh Council's website](#)

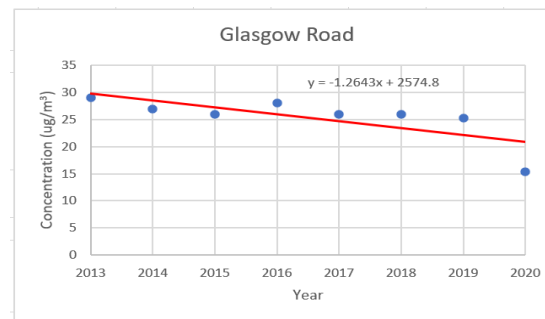
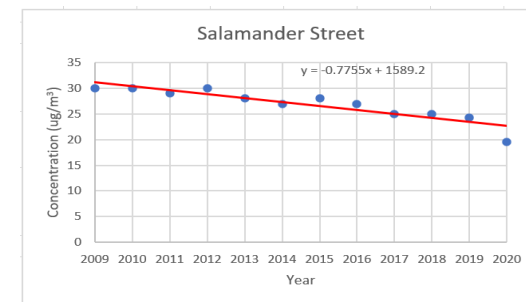
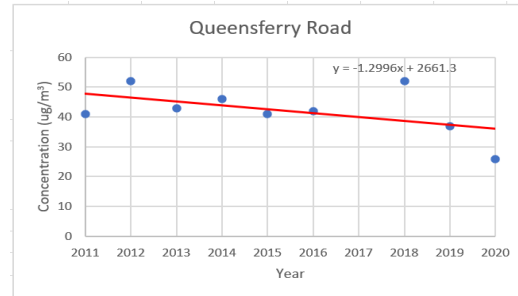
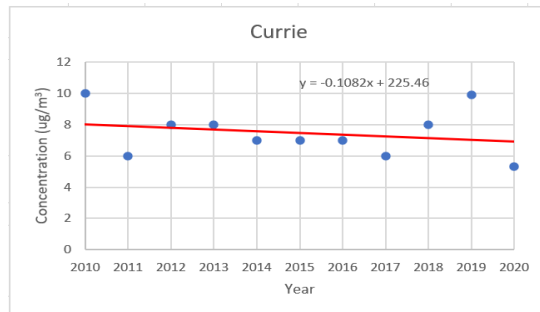
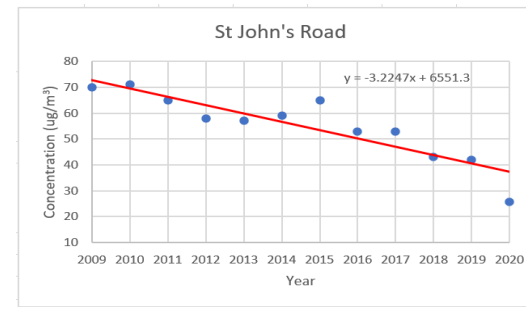
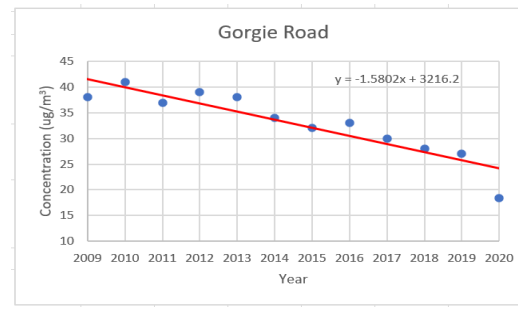
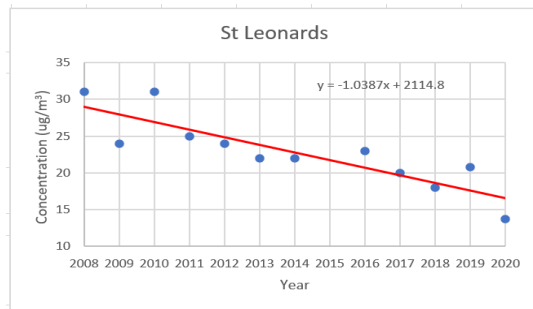
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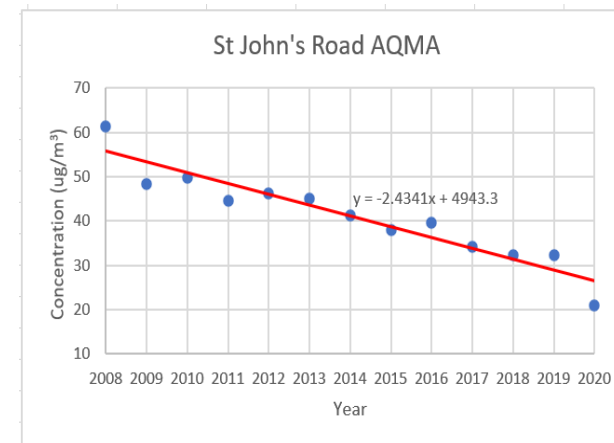
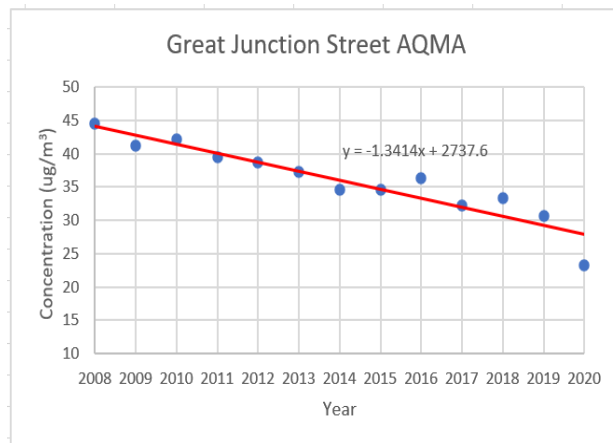
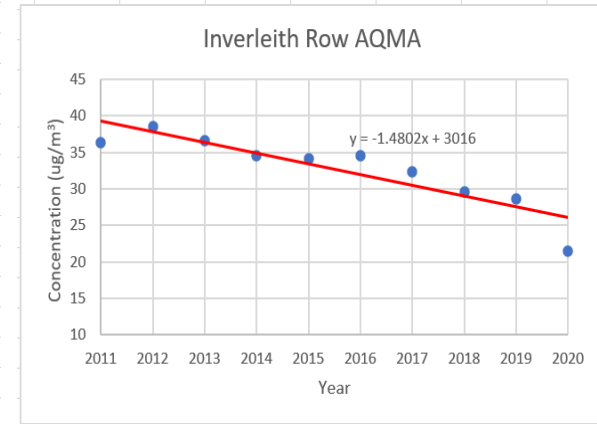
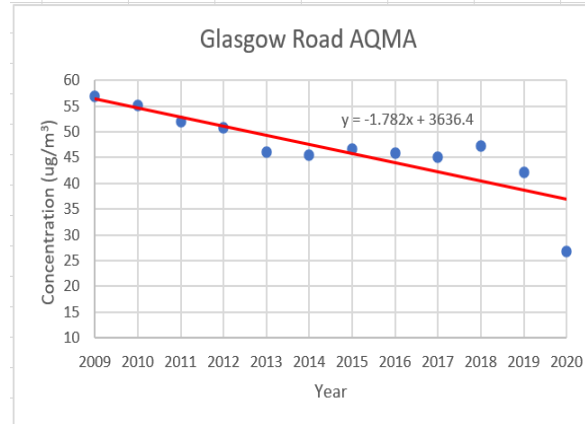
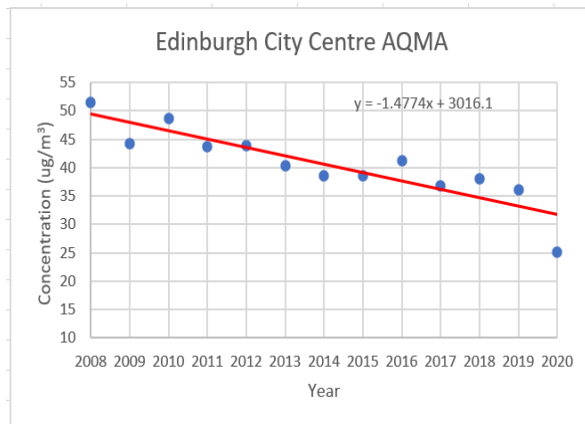
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# APPENDIX 3

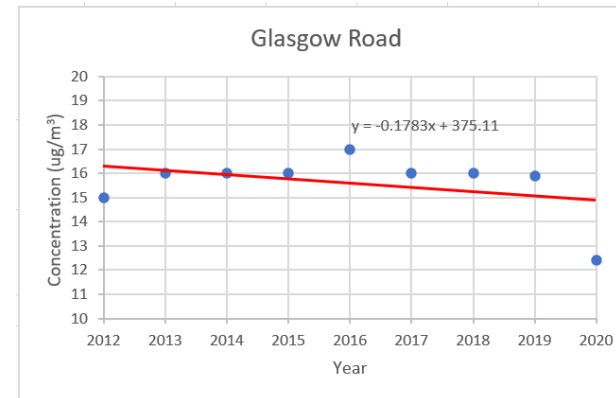
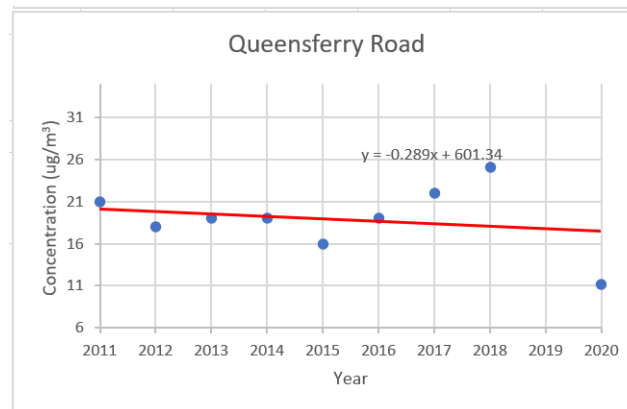
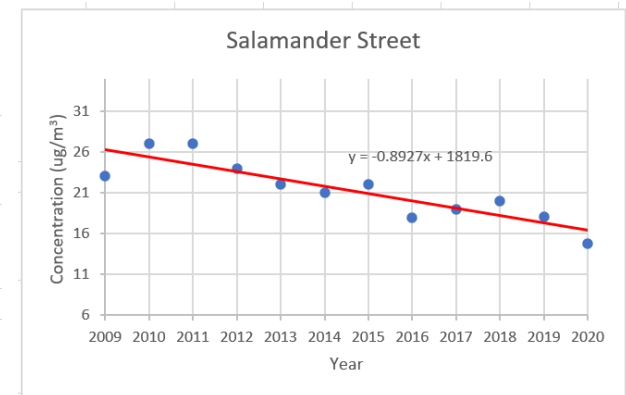
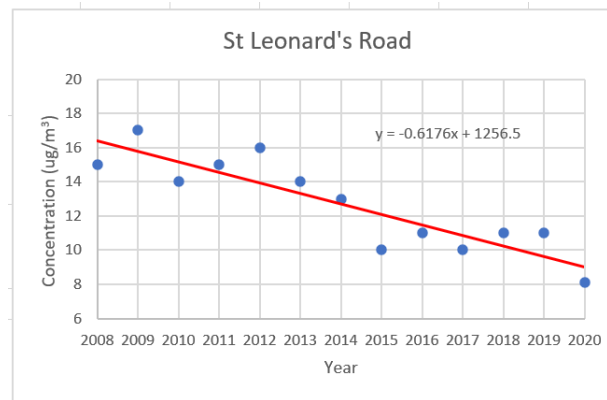
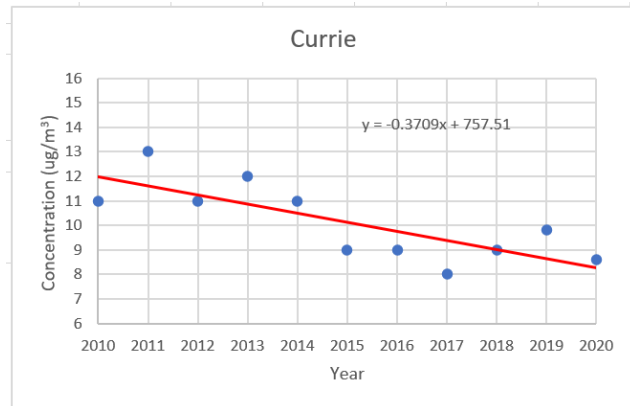
## NO<sub>2</sub> Concentration Trends at Continuous Monitoring Locations



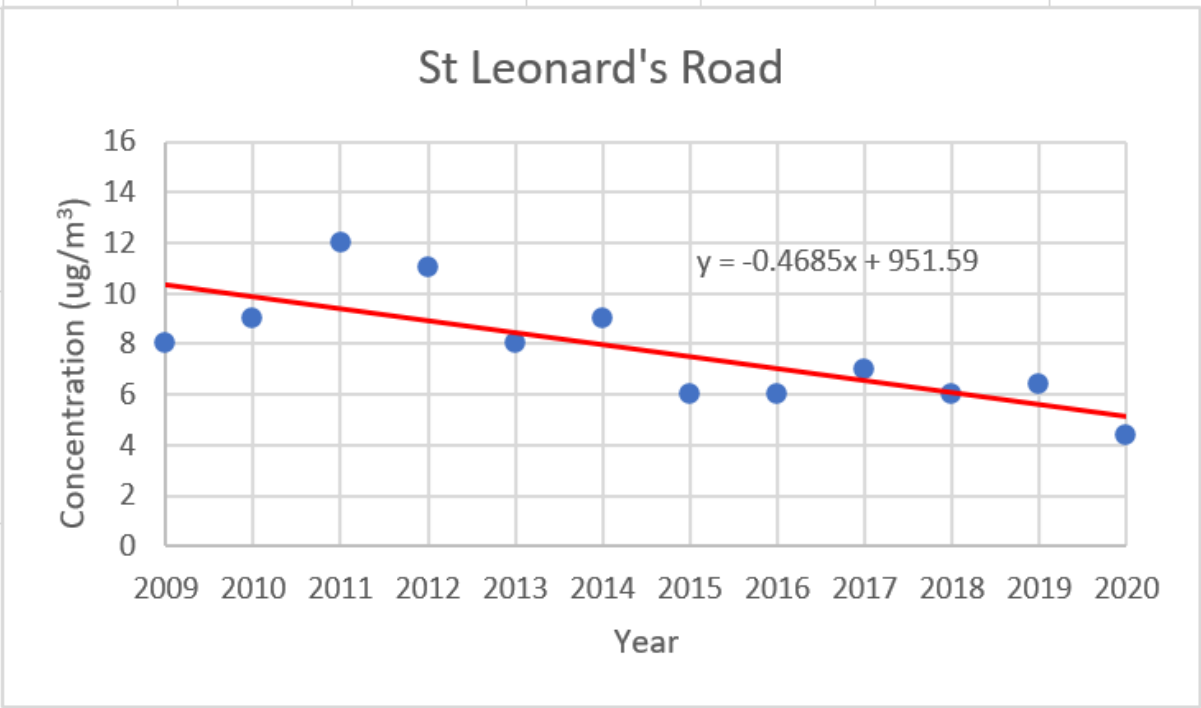
## Average Passive Diffusion Tube NO<sub>2</sub> Concentration Trends within Each AQMA



# PM<sub>10</sub> Concentration Trends at Continuous Monitoring Location



# PM<sub>2.5</sub> Concentration Trends at St Leonard's



## APPENDIX 4

**Summary of locations where 2020 monitoring results are at or exceed the annual mean Nitrogen Dioxide Objective (40µg/m<sup>3</sup>)**

Site ID	Site address	In AQMA (NO <sub>2</sub> )?	Data Capture (%)	Annual mean concentration µg/m <sup>3</sup> (Bias adjusted 0.84)
81	London Rd/East Norton Place	Yes (City Centre)	75.0	44



## APPENDIX 5

**Table showing Progress on Measures to Improve Air Quality in Edinburgh**

Measure No.	Measure	Category	Focus	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
1	Promoting low emission public transport	Vehicle fleet efficiency	Reduce bus emissions via voluntary agreements with bus companies	CEC	2009 - 2011	Euro IV by 2012 Euro V by 2015  Formal agreement not reached due to being onerous in absence of financial support		NOx Central 59% St John's 48% Gt Junction St 61%	TTR study Completed.	On going	
1a	Implementation of a LEZ	Promoting Low emission transport	Manage bus emissions and potentially emissions from other vehicle classes	CEC in conjunction with Scottish Government, Transport Scotland and SEPA	2016-to date	Programme for Government commitment for LEZ to be in place by 2020		Will be determined by outcomes of NMF and NLEF under CAFS  With proposed scheme 55% NOx reduction in Central AQMA (SEPA, May 2021).	Statutory consultation undertaken in the summer 2021. Further work being undertaken in respect to the statutory requirement to reduce greenhouse gas emissions.	Scottish Government and 4 Cities agreed implementation date between Feb and May 2022.	
2	Fleet efficiency and recognition Scheme ECO Stars	Vehicle Fleet Efficiency	Manage road freight emissions	CEC in conjunction with TRL	2010-2011	2011 to date	Recruitment figures		2021 – 312 operators and 10,576 vehicles registered	Ongoing	Part funding secured for 2021/22

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3	Cleaner council vehicles	Vehicle Fleet Efficiency	Improve emissions by ensuring highest standard for vehicle replacement	CEC		2003		Not quantified	2021 the current Council fleet is 60% Euro 6/VI compliant	Ongoing	The Council is developing a fleet decarbonisation plan.
3a	ECO driver training and ECO driving aids	Vehicle Fleet Efficiency	Council vehicle trial telematics system	CEC, Fleet	2018		Reduction in idling and fuel consumption	Not quantified	Council approved installation of a Telematics system for all council vehicles	Trial completed Roll out of telematics underway	
4	Bus based Park and Rides  Rail based Park and Rides *  Tram based Park and Rides**	Alternative to private vehicle use  Modal shift	Reduce emissions by easing congestion at peak travel times	CEC		Ongoing	Usage	Not quantified	Ferrytoll (1040) Ingliston** (1082) Straiton (600) N'craighall* (565) Sheriffhall (561) Hermiston (450) Wallyford* (321) Halbeath (1021)	Land secured at Hermiston for future expansion	Require funding to enable expansion

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5	Differential parking	Promoting low emission vehicles	Aimed at smaller engines and low CO <sub>2</sub> emission vehicles  Diesel-surcharge on resident's car parking permits	CEC		Ongoing		Not quantified	Work undertaken for 2015 Air Quality Action Plan Progress Report showed that there had been an element of behaviour change with residents moving towards the purchase of smaller engine vehicles producing less CO <sub>2</sub>		Requires adoption of low emission vehicles in terms of NO <sub>x</sub> and PM <sub>10</sub>
6	Controlled Parking Zones  Priority Parking Zones PPZ	Traffic Management	Discourage car commuting into city centre	CEC				Not quantified	Several CPZ in city centre One new PPZ introduced Total 10 PPZs surrounding city centre	Ongoing	Strategic Parking Review underway
7	Tramline 1	Transport Planning and Infrastructure	Zero emissions at source. Encourage modal shift from car use	CEC/ TFE		Line 1 May 2014  Line 1a from Autumn 2019	Passenger growth	Not quantified	7.1 m Passengers 2019/20	Completed	Construction of Line 1a (extension to Newhaven/ Leith) underway. Due for completion 2023.

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8	New rail line stations; 1. Aidrie – Bathgate 2. New Craighall 3. Borders 4. Gogar	Transport Planning and Infrastructure	Modal shift to reduce road traffic entering Edinburgh	Transport Scotland			Passenger numbers	Not quantified	Completed 1. 2010 2. 2002 3. Sept 2015 4. 2016	All Completed	Passenger growth recorded
9	New cycle networks	Transport Planning and Infrastructure	Part of CECs Active Travel Action Plan	CEC/ Sustrans/ NHS Lothian	2010	2016 (updated)		Not quantified		On going	
9a	Promoting travel alternatives	Promotion of cycling and walking	CECs Active Travel Action Plan Encourage modal shift away from car	CEC/ Sustrans/ NHS Lothian	Ongoing			Not quantified		On going	
10a	Urban traffic control systems – SCOOT	Traffic Management	Reduce waiting times and stop/starts	CEC Transport	Ongoing			Not quantified	No. of schemes across City; Inverleith Row, Gorgie, Ardmillan Triangle, Part London all fully operational	On going	A loop repair programme has been initiated with associated staff resource. Loops are also now replaced as a part of the Council's roads resurfacing programme.

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10b	Urban traffic Control systems – MOVA at Newbridge	Traffic Management	Reduce idling time	CEC transport	2014	Mar 2016	Reduced NO <sub>2</sub> concentrations and idling times	44% NOx 26% PM10	Completed April 2016	Completed	Delay time reduced on Westbound A8 pm. Measured NO <sub>2</sub> at junction reduced.
11	20mph speed limits across the City	Traffic Management	To assist improving cycle and walking uptake by making roads safer	CEC	2015	31/07/2016 commenced		Not quantified		2018	2018 Fully implemented