Transport and Environment Committee

10.00am, Thursday, 28 January 2021

2020 Air Quality Annual Progress Report

Executive/routine	Routine
Wards	All
Council Commitments	<u>18</u>

1. Recommendations

1.1 It is recommended that the Committee notes the content of the statutory Annual Progress Report submitted to the Scottish and UK Government as part of the Local Air Quality Management Framework.

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Report

2020 Air Quality Annual Progress Report

2. Executive Summary

- 2.1 The report provides an annual update on the most recently available annual air quality monitoring data (2019), local pollutant trends and emerging issues, fulfilling the requirements of the statutory Local Air Quality Management Framework.
- 2.2 Concentrations of the main pollutants of concern are decreasing at most locations across the city, although there remain areas where statutory legal objectives are being breached, especially traffic related nitrogen dioxide in the city centre. The development of a low emission zone is expected to reduce concentrations of nitrogen dioxide (NO₂). The objective for fine particulate matter (PM₁₀) continues to be exceeded in the Salamander Street Air Quality Management Area (AQMA), albeit marginally.
- 2.3 The St John's Road AQMA can now be amended, due to improvements in air quality, with the hourly objective for NO₂ having been met for four consecutive years.
- 2.4 The Council has continued to make progress with a range of actions that will improve air quality. These include engaging with bus and freight sector to encourage reduction in emissions from vehicles, implementing measures to deal with congestion and promoting modal shift away from car use.

3. Background

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 Air Quality Management Area (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 In Edinburgh there are five AQMAs declared for breaches of the NO₂ objectives Central, St John's Road, Great Junction Street, Glasgow Road (Newbridge) and Inverleith Row. Traffic is the main source of this pollutant, however other sources including emissions from power generation and space heating, contribute to the general background concentrations, especially in the city centre. The Council's current Air Quality Action Plan relating to NO₂ will be revised to take account of the commitment to develop a low emission zone scheme for the city as well as the developing City Mobility Plan and changes to national policy, namely the Cleaner Air for Scotland Strategy.
- 3.3 There is one AQMA declared for fine particles (PM₁₀) in the Salamander Street area, which has a mix of sources including fugitive, industrial and traffic emissions. An Air Quality Action Plan for this pollutant has yet to be finalised.
- 3.4 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 (2019), trends in local pollutants and emerging issues. It is compiled in accordance with the Technical Guidance (updated 2018) issued by the Department of Environment Food and Rural Affairs (DEFRA) and approved by the Scottish Government following peer reviewed by DEFRA and Scottish Environment Protection Agency (SEPA).

COVID-19 Lockdown and its effect on Air Quality

- 3.5 The impact of the COVID-19 pandemic is significant in terms of the 2020 air quality levels. It is also likely to have long term impacts on travel behaviour and traffic levels across the United Kingdom (UK) as the country emerges from the pandemic.
- 3.6 Scottish Government undertook an initial analysis of the impact of the COVID-19 pandemic response on air quality in Scotland, using provisional 2020 data.
- 3.7 It indicated that the lockdown in March resulted in a significant drop in NO₂, PM₁₀ and PM_{2.5} concentration levels in Scotland's busy urban areas and especially in city centres, attributable to the huge decrease in vehicle traffic.
- 3.8 The 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).
- 3.9 A full analysis of 2020 data will be presented in the next Annual Progress report.

4. Main report

Monitoring network and data

- 4.1 The Council is predominately concerned with the review and assessment of Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀ and PM_{2.5}), as with most UK towns and cities. Statutory objectives for these pollutants are defined in Appendix 1. Scotland has set tighter standards for particulates (PM₁₀ and PM_{2.5}) compared with the rest of the UK and Europe.
- 4.2 In 2019, the Council's monitoring network for these pollutants consisted of nine automatic monitoring stations and 158 non-automatic (passive diffusion tubes) locations (NO₂). Further details on the network can be found in Appendix 2.
- 4.3 Generally, improvements in air quality are assessed by analysis of long-term trends. Short-term results are influenced by weather and temporary events such as local traffic diversions and roadworks.
- 4.4 Trend analysis, inclusive of 2019 data, has shown that for NO₂, PM₁₀, and PM_{2.5}, concentrations are largely decreasing across Edinburgh. In some locations (Currie (NO₂), and Glasgow Road (PM₁₀)) the concentrations are remaining stable; however, no exceedances are located in these areas. Appendix 3 shows trend analysis for NO₂, PM₁₀ and PM_{2.5} from the relevant monitoring stations and the NO₂ AQMAs.
- 4.5 The Council's trend analysis corresponds well to the national picture which generally sees significant downward trends for NO₂ at roadside locations and more mixed trends for PM₁₀ and PM_{2.5}.
- 4.6 Exceedances of the NO₂ <u>annual</u> objective have continued to be monitored within St John's Road, Glasgow Road, and the Central AQMAs. Appendix 4 shows all locations where the NO₂ objective is exceeded. The majority of these locations are within the Central AQMA.
- 4.7 For the third consecutive year in a row Great Junction Street AQMA has reported no breaches of NO₂ objectives. A review will be undertaken to consider the potential revocation of the AQMA, particularly in relation to changing traffic management priorities in the area. Inverleith Row AQMA reported no breaches for the second year in a row. Monitoring will continue to assess whether this AQMA can be revoked in the future.
- 4.8 There continues to be no breach of the <u>hourly</u> NO₂ objective in the St John's Road AQMA for the fourth year in a row. Therefore, the Council will amend the AQMA to reflect this.
- 4.9 Salamander Street continues to be the only monitoring site that exceeds any objectives for PM₁₀, albeit marginally in 2019 (18.1µg/m³), using a locally derived correction methodology. The Scottish statutory objectives for PM_{2.5} are met at all monitoring locations.

Progress with Actions to improve Air Quality

Low Emission Zone

- 4.10 The Council is committed to work with Scottish Government to develop and implement a Low Emission Zone (LEZ) scheme in Edinburgh. Following the pause in progressing the work, during the COVID-19 pandemic response, LEZs are now to be introduced across Edinburgh, Aberdeen, Dundee and Glasgow between February and May 2022.
- 4.11 The Council continues to work in close partnership with SEPA, Transport Scotland and the Scottish Government to assist in the work of the National Modelling Framework (NMF) which will provide consistent quantitative evidence for assessment of criteria for each LEZs in Scotland. A further report from SEPA is due to analyse 2019 traffic data, following their report in 2018. The results of the 2019 public consultation on two proposed boundaries (city centre and city wide) is being considered alongside traffic modelling, an analysis of wider impacts (Integrated Impact Assessment), study of enforcement options for the Council and financial modelling, in order to finalise the proposed scheme going forward.
- 4.12 The impact of the COVID-19 pandemic, especially on potential future traffic and travel demand, will now also constitute a consideration of the LEZ development work.
- 4.13 Funding to support the implementation of LEZs is being made available by the Scottish Government on a year on year basis.
- 4.14 To support the introduction of LEZs across the different fleets there are government funding streams available. BEAR, Transport Scotland's Bus Emissions Abatement Retrofit Programme was over-subscribed in the current financial year, with a number of buses that operate in Edinburgh receiving the grant (see below).
- 4.15 Additionally, £1m is available in 2020/21 to support the retrofitting of light goods vehicles, heavy goods vehicles and taxis through the LEZ Retrofitting Fund for micro-businesses. In October 2020, the LEZ Support Fund for low-income households and micro-businesses was also announced and aims to incentivise the scrapping of older petrol and diesel vehicles and encourage a change to sustainable transport.
- 4.16 The regulations and guidance that are necessary for local authorities to be able to introduce and enforce LEZs are being developed and expected in Spring 2021. In accordance with this, the Council will develop and consult on a final Proposed Scheme in preparation for implementation in 2022.
- 4.17 The LEZ scheme will be devised in conjunction with the development of the City Mobility Plan and Edinburgh City Centre Transformation programme.

Progress with actions in the Current Action Plan

- 4.18 The main actions in the current NO₂ Air Quality Action Plan and Local Transport Strategy to improve air quality are based on:
 - 4.18.1 promoting cleaner transport, especially buses and other heavy vehicles;
 - 4.18.2 adoption of a fleet recognition efficiency scheme for reducing emissions from road freight vehicles;
 - 4.18.3 improving traffic flow and easing congestion by use of intelligent traffic signalling; and
 - 4.18.4 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.
- 4.19 Progress on the measures to improve air quality are included in Appendix 5.

Promoting Cleaner Transport

- 4.20 In 2020, the COVID-19 pandemic has had a serious impact on society which has resulted in a significant downturn in public transport patronage. Bus and tram demand reduced considerably since March and there are likely longer-term consequences that will impact the economic and financial viability of the sector.
- 4.21 Given the circumstances, an update on the bus fleets operating in Edinburgh in 2020 was not sought. However, an analysis of the buses operating on main arterial routes was undertaken through traffic data captured, as part of the Council's on-going work under the LEZ National Modelling Framework.
- 4.22 This analysis, from 2016, 2019 and (early March) 2020, shows a general pattern to eradicate the older buses from the main operator's fleets (Euro III). It also shows that the percentage composition of Euro classes in the fleet does tend to change on a year to year basis. A LEZ will be an important tool in setting consistent standards on the environmental performance of the Edinburgh bus fleet.
- 4.23 Fifty-three percent of Lothian Buses fleet currently meets Euro VI vehicle emission standard (which is that likely to be set for the LEZ criteria for heavy diesel vehicles). The company was awarded £2.2m through the BEAR scheme to retrofit 188 Euro V vehicles with approved technology, to bring these vehicles up to an equivalent Euro VI standard. This planned work is on-going until March 2021 and will result in almost 80% of their total bus fleet meeting the Euro VI criteria.
- 4.24 Engagement with all main bus companies operating in Edinburgh, in relation to fleet improvements and the developing LEZ proposals, will recommence in early 2021.
- 4.25 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.

- 4.26 In comparison to the previous year, there is an increase in the proportion of Euro 6/VI (or better) vehicles in the fleet, from 46% to 51%. The oldest vehicles (Euro IIIs) are predominantly trucks which will be replaced in 2021. An electric 15-tonne mechanical street sweeper entered operation in October 2020, which is the first of its type in Scotland. Three electric, low-level, passenger buses have also been adopted into the fleet.
- 4.27 To support aspirations for an electric car and van fleet by 2022/23, an extensive programme of electric vehicle chargers has been installed at office locations.
- 4.28 The Council plans to install a telematics system in all Council vehicles with a view to providing data which would enable effective management of the fleet and contribute to the Council's wider aims of air quality improvement and carbon reduction targets. Installation on the HGV fleet is currently underway and, although there have been some delays as a result of COVID-19, installation in the Waste fleet is nearing completion. This was targeted first as it is the heaviest fleet in terms of fuel usage and emissions.

Adoption of a fleet recognition efficiency scheme

4.29 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 287 operators covering 9,997 vehicles which has increased year on year.

Improving traffic flow and easing congestion by use of intelligent traffic signalling

- 4.30 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.
- 4.31 SCOOT is one example of such systems and is in place on many road networks in the city. Air Quality Action Plan Grant funding is currently assisting with SCOOT development on the Cowgate, the A701 Bridges corridor, London Road and Inverleith Row.
- 4.32 Concentrations of NO₂ continue to fall at Newbridge Roundabout (Glasgow Road AQMA) following the installation of MOVA (Microprocessor Optimised Vehicle Actuation), an alternative traffic management system, in April 2016. Any future changes to the Newbridge roundabout would need to consider the air quality impact.

Promoting Modal Shift from Car Use

4.33 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 emerging City Mobility Plan will reinforce this work.

Other Measures and Actions to Improve Air Quality

- 4.34 There are a number of other measures which the Council is undertaking which have the added benefit of improving air quality. The main update highlights for the current reporting year are detailed below:
 - 4.34.1 Electric vehicle charging infrastructure. The first phase of a programme to install on-street chargers (66) will now be complete 2021/2022.
 - 4.34.2 As part of the Parking Pricing Strategy, the Council will introduce a surcharge on residents permits for diesel-fuelled vehicles in 2021.
 - 4.34.3 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. Changes to the policy took account of the new LEZ implementation timeline. There were no changes in respect to Euro 4 vehicles, which came fully into force on 1 April 2020, and ensures vehicles are replaced on expiry on the current license (unless already exempted).

Local Priorities and Challenges

- 4.35 Continuing economic growth in the city and wider region presents a challenge for air quality. Population growth has inevitable demand for all modes of transport and supported infrastructure.
- 4.36 The Council is preparing a new Local Development Plan for Edinburgh called the City Plan 2030, which will set out policies and proposals for development in Edinburgh between 2020 and 2030.
- 4.37 Alignment with local air quality management and developing local and national air quality strategies will be crucial to ensuring a sustainable economic growth.

5. Next Steps

- 5.1 This 2020 Air Quality Annual Progress Report discharges the Council's statutory duty to report on the monitoring and assessment of air quality, as specified under the terms of the Environment Act 1995 and the associated Local Air Quality Management framework.
- 5.2 The 2020 Air Quality Annual Progress Report is published on the Council's website.

- 5.3 The main priority for the Council in 2021 will be presenting the preferred LEZ scheme for public consultation and statutory processing. Work will also continue with SEPA and Transport Scotland to fully assess the implications of such a scheme, under the National Low Emission Framework and the National Modelling Framework.
- 5.4 Progress with the development of Air Quality Action Plans has been slow due to staff resourcing issues.
- 5.5 The Council will need to revise the current NO₂ Air Quality Action Plan (2008), in conjunction with the new City Mobility Plan and review of the Cleaner Air for Scotland Strategy. The LEZ scheme for Edinburgh will form a major aspect of the Action Plan.
- 5.6 The Steering Group set up to consider the PM₁₀ AQAP will need to reconvene to consider further development of the Action Plan for PM₁₀.

6. Financial impact

6.1 This report is a statement of facts regarding the results of ambient air quality monitoring and improvements achieved to date regarding progress with actions. The report has no direct financial impacts.

7. Stakeholder/Community Impact

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

8. Background reading/external references

- 8.1 2020 Air Quality Annual Progress Report (APR) for City of Edinburgh Council <u>http://www.edinburgh.gov.uk/downloads/download/117/local_air_quality_managem</u> <u>ent_reports</u>
- 8.2 Scottish Air Quality Database Annual Report 2019 Report for Scottish Government http://www.scottishairquality.scot/assets/documents/technical%20reports/SAQD_an nual_report_2019_Final_issue_1.pdf

9. Appendices

- 9.1 Appendix 1 Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀ and PM_{2.5}) Legal Standards
- 9.2 Appendix 2 Details of Monitoring Network 2019
- 9.3 Appendix 3 Trends in NO₂, PM₁₀ and PM_{2.5}

- 9.4 Appendix 4 Summary of the locations where 2019 monitoring results are at or exceed the annual mean Nitrogen Dioxide Objective (40µg/m³)
- 9.5 Appendix 5 Table showing progress on measures to improve air quality.

NO₂, PM₁₀ and PM_{2.5} Legal Standards

Pollutant	Status	Concentration in Ambient air	Measured as	To be achieved by
NO ₂	Scottish & UK Statutory Air Quality Objective and EU limit	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005*
	values	40 μg/m ³	Annual mean	31.12.2005*
PM ₁₀	Scottish Statutory Air Quality Objectives	18 μg/m ³	Annual mean	2010
		50 µg/m ³ not to be exceeded more than 7 times a year	Daily mean	2010
	Statutory UK Objective and EU	40 μg/m ³	Annual mean	2004
	limit values	50 μg/m ³ not to be exceeded more than 35 times a year	Daily mean	2004
PM _{2.5}	Scottish Statutory Air Quality Objective	10 μg/m ³	Annual mean	2020
	Statutory UK Objective and EU	25 μg/m³	Annual mean	2020
		15% reduction in urban background	-	2010-2020

Nitrogen Dioxide (NO₂), Particle PM₁₀ and PM_{2.5} Legal Standards

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

Air Quality Monitoring Network 2019

Automatic Monitoring

- A. Edinburgh has a well-established monitoring regime for NO₂ and PM₁₀.
- B. In April 2016, it became a statutory requirement for Scottish local authorities to review and assess the smaller fraction of particles, PM_{2.5}. With the help from the Scottish Government Air Quality Monitoring Support Fund, the Council has established four additional sites to St Leonards, two of which became operational in 2019 Queensferry Road (replacement of TEOM FDMS instrument in October) and Nicolson Street (December). Full annual data set will be reported for both these stations in the next Annual Progress Report.
- C. In response to the designation of the Salamander Street AQMA, a FIDAS 200 particulate monitor was installed at the new Tower Street site in 2018. This monitors a range of particle sizes including PM₁₀ and PM_{2.5}. The first full year of data from this monitor is presented within this year's annual report. St John's Road also has a FIDAS 200 instrument and the third year of data is presented in this year.
- D. In July 2019, Defra installed a new FIDAS 200 monitor at the St Leonards site, part of the UK Automatic Urban and Rural Network. This was in order to replace the aging FDMS TEOM particulate monitor.
- E. As part of a programme to replace aging NOx analysers, the Council, with support from the Scottish Government Local Air Quality Management Funding Support, installed a new T200 NOx analyser at St John's Road in June 2019. Further NOx analyser replacements were made at Currie, Glasgow Road and Salamander Street sites in 2019.

Non-automatic Monitoring - Passive Diffusion Tubes (NO₂)

The City of Edinburgh Council undertook non-automatic (passive) monitoring of NO₂ at 158 sites during 2019.

Twenty new monitoring locations were deployed in 2019 and shown in the table overleaf.

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

Maps showing the location of the monitoring sites (as well as the Air Quality Management Areas) are provided from this web page: https://www.edinburgh.gov.uk/pollution/local-air-quality-management

Tube ID	Site ID	New / Relocated / Removed (during 2019)
69i	Queensferry Rd/Lyle Court	New
129	Queensferry Rd/Hillpark Wood	New
18a	Ferry Rd no. 203	New
8a	Brougham St no.9	New
48g	Canongate	New
8b	Lauriston Place opp. 119	New
62a	Lothian Rd no. 45	New
62b	Lothian Rd no. 139	New
62c	Morrison St no. 91	New
62x	Lothian Rd/Rutland Place	New
30a	Rodney St no. 10	New
30b	Rodney St no. 31	New
10a	George IV Bridge	New
10b	Bank St	New
10c	Teviot Place	New
6b	Bruntsfield Place no. 147	New
153	New Arthur Place no. 4	New (Relocated from 16 St Johns Hill)
154	Viewcraig St no.9	New (Relocated from 7 Viewcraig Gardens)
135a	69 Nicolson St	Removed during August 2019
135b	59-61 Nicolson St in August	New (Relocated, replacing 135a)
63	Queensferry Rd 544	Removed during October 2019
63a	Queensferry Rd 540	New (Relocated, replacing 63)

Table - Newly Deployed Diffusion Tube Sites 2019











Continued.../ NO₂ Concentration Trends at Continuous Monitoring Locations





Continued/... NO₂ Concentration Trends at Continuous Monitoring Locations



Average Passive Diffusion Tube NO₂ Concentration Trends within Each AQMA





Continued/...

Average Passive Diffusion Tube NO₂ Concentration Trends within Each AQMA







PM₁₀ Concentration Trends at Continuous Monitoring Locations





Continued/...

PM₁₀ Concentration Trends at Continuous Monitoring Locations



PM_{2.5} Concentration Trends at St Leonard's



Summary of locations where 2019 monitoring results are at or exceed the annual mean Nitrogen Dioxide Objective $(40\mu g/m^3)$

Site ID	Site address	In AQMA (NO ₂)?	Data Capture	Annual mean concentration μg/m ³ (Bias adjusted 0.84)
ID5	St John's Road (Auto)	Yes (St John's)	99.2	42
EDNS	Nicolson Street (Auto)	Yes (City Centre)	99.4	50
16	Glasgow Road 68	Yes (Glasgow Rd)	100.0	41
58	Glasgow Road Newbridge	Yes (Glasgow Rd)	100.0	46
64	Queensferry Road 550	No	100.0	57
691	Queensferry Rd/Lyle Court	No	58.3	40
81	London Rd/East Norton Place	Yes (City Centre)	100.0	50
48G	Canongate	No	75.0	43
37a	Grassmarket 41	Yes (City Centre)	58.3	52
HT2	Haymarket Terrace (South)	Yes (City Centre)	83.3	41
74g	Leith Street 35	Yes (City Centre)	83.3	44
62A	Lothian Road 45	Yes (City Centre)	58.3	57
62B	Lothian Road 139	No	58.3	44
62X	Lothian Road/Rutland St	Yes (City Centre)	75.0	46
62C	Morrison Street 91	Yes (City Centre)	75.0	42
135a	Nicolson Street 69	Yes (City Centre)	58.3	41
27	North Bridge – South	Yes (City Centre)	100.0	41
24	Princes Street/Mound	Yes (City Centre)	75.0	53
3	Torphichen Place CH	Yes (City Centre)	83.3	41
2	West Maitland Street	Yes (City Centre)	100.0	46
28d	West Port 42	Yes (City Centre)	66.7	44
28b	West Port 62	Yes (City Centre)	75.0	54
CL123*	Queensferry Road	No	100.0	45
CL1314 15*	St Johns Road	Yes (St John's Rd)	100.0	47

Progress on Measures to Improve Air Quality

The following Table is an excerpt from the 2020 Air Quality Annual Progress Report (Table 2.7). <u>https://www.edinburgh.gov.uk/downloads/file/28720/laqm-annual-progress-report-2020</u>

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	City of Edinburgh Council (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	Details update from bus operators was not obtained 2020. However, analysis of the ANPR traffic studies 2016-19 show fluctuations of bus standards being used in the Edinburgh fleet.

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
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		Programme for Government commitment for LEZ to be in place by 2020		Will be determined by outcomes of NMF and NLEF under CAFS Interim SEPA Report, based on 2016 modelled data indicates 50- 75% NO2 reduction required in Central AQMA.	New legislation in force to allow development of LEZs - Transport (Scotland) Bill 2019.	Preferred LEZ scheme to undergo statutory and public consultation in 2021. Scheme to be in place Feb-May 2022/23.	Regulations associated with the Act continue to be developed.
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		2020 - 287 operators and 9,997 vehicles registered	Ongoing	Additional funding secured for 2020/21
3	Cleaner council vehicles	Vehicle Fleet Efficiency	Improve emissions by ensuring highest standard for vehicle replacement	CEC, Fleet Services		2003		Not quantified	2020 - E3/III = 1% E4/IV = 15% E5/V = 33% E6/VI = 45% Electric = 6% Total 985	Ongoing	
3a	ECO driver training and ECO driving aids	Vehicle Fleet Efficiency	Council vehicle trial telematics system	CEC, Fleet Services	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	

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
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			Usage	Not quantified	Ferrytoll (1040) Ingliston** (1082) Straiton (600) N'craighall* (565) Sheriffhall (561) Hermiston (450) Wallyford* (321) Halbeath (1021	Land secured at Hermiston Lasswade Hermiston Gait for future expansion	Require funding to enable expansion
5	Differential parking	Promoting low emission vehicles	Aimed at smaller engines and low CO ₂ emission vehicles Diesel-surcharge on resident's car parking permits	CEC				Not quantified			Requires adoption of low emission vehicles NOx and PM ₁₀
6	Controlled Parking Zones Priority Parking Zones PPZ	Traffic Manageme nt	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 Infrastructu re	Zero emissions at source. Encourage modal shift from car use	CEC/ Transport for Edinburgh		Line 1 May 2014 Line 1a from Autumn 2019	Passenger growth	Not quantified	7.5 m Passengers 2018/19	Completed	Construction of Line 1a (extension to Newhaven/ Leith) underway. Due for completion 2023.

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
8	New rail line stations; 1 Aidrie - Bathgate 2 New Craighall 3 Borders 4 Gogar	Transport Planning and Infrastructu re	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 Infrastructu re	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 Manageme nt	Reduce waiting times and stop/starts	CEC, Transport Service	Ongoing			Not quantified	No. of schemes across City. New area; Cowgate/St Mary's St, London Rd/M'Bank Fully operational 2019; Gorgie /Chesser /Balgreen	On going	New schemes to be finalised. Many existing schemes need repairing and re-validating Funding secured to assist.
10b	Urban traffic Control systems – MOVA at Newbridge	Traffic Manageme nt	Reduce idling time	CEC, Transport Service	2014	Mar 2016	Reduced NO ₂ concentrations and idling times	44% NOx 26% PM ₁₀ 40% CO ₂	Completed April 2016	Completed	Delay time reduced on Westbound A8 pm. Measured NO ₂ at junction reduced.
11	20mph speed limits across the City	Traffic Manageme nt	To assist improving cycle and walking uptake by making roads safer	CEC	2015	31/07/2016 commenced		Not quantified		2018	2018 Fully implemented