

The City of Edinburgh Council's Proposal to Make a Low Emission Zone Scheme: Final Submission to Scottish Ministers

Pursuant to the provisions of the

[Transport \(Scotland\) Act 2019](#) and in accordance with

[The Low Emission Zones \(Scotland\) Regulations 2021](#) and


[The Low Emission Zones \(Emission Standards, Exemptions and Penalty Charges\) \(Scotland\) Regulations 2021](#)

Reporting Body & Approval

LEZ Scheme and Final Submission document submitted to Transport Scotland 1 April 2022 and Updated 28 April 2022.

Approved by: The City of Edinburgh Council

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Signature: 

Date of Signature: 28 April 2022

LEZ Scheme approved by the City of Edinburgh Council's Transport and Environment Committee for submission to Ministers on 31 March 2022.

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Introduction

Pursuant to the provisions of the [Transport \(Scotland\) Act 2019](#) ('the Act'), and in accordance with [The Low Emission Zones \(Scotland\) Regulations 2021](#) and [The Low Emission Zones \(Emission Standards, Exemptions and Penalty Charges\) \(Scotland\) Regulations 2021](#) ('the Regulations') notice is hereby given that the City of Edinburgh Council ('the Council') intends to apply to the Scottish Ministers for consent to introduce and operate a Low Emission Zone (LEZ) Scheme ('the Scheme') in Edinburgh.

Following a robust option generation, appraisal and testing process, using the National Low Emission Framework (NLEF) and National Modelling Framework (NMF), [LEZ Guidance](#) ('the Guidance') and informed by ongoing engagement with members of the public and stakeholders, the Council has determined the optimum LEZ for Edinburgh. This is referred to as 'the Scheme'.

This submission sets out the information required by the Final Submission template as per Annex C of the [LEZ Guidance](#). Links to all the reporting and evidence used to support the process of creating the LEZ Scheme are set out on the [Council's LEZ evidence webpage](#), and links are provided to individual documents throughout this submission where relevant, for ease of reference.

This submission is also accompanied by a copy of the Council's [Integrated Impact Assessment](#) and [Objections Report](#).

Boundary

A map of the proposed Edinburgh LEZ is shown in Figure 1 below.

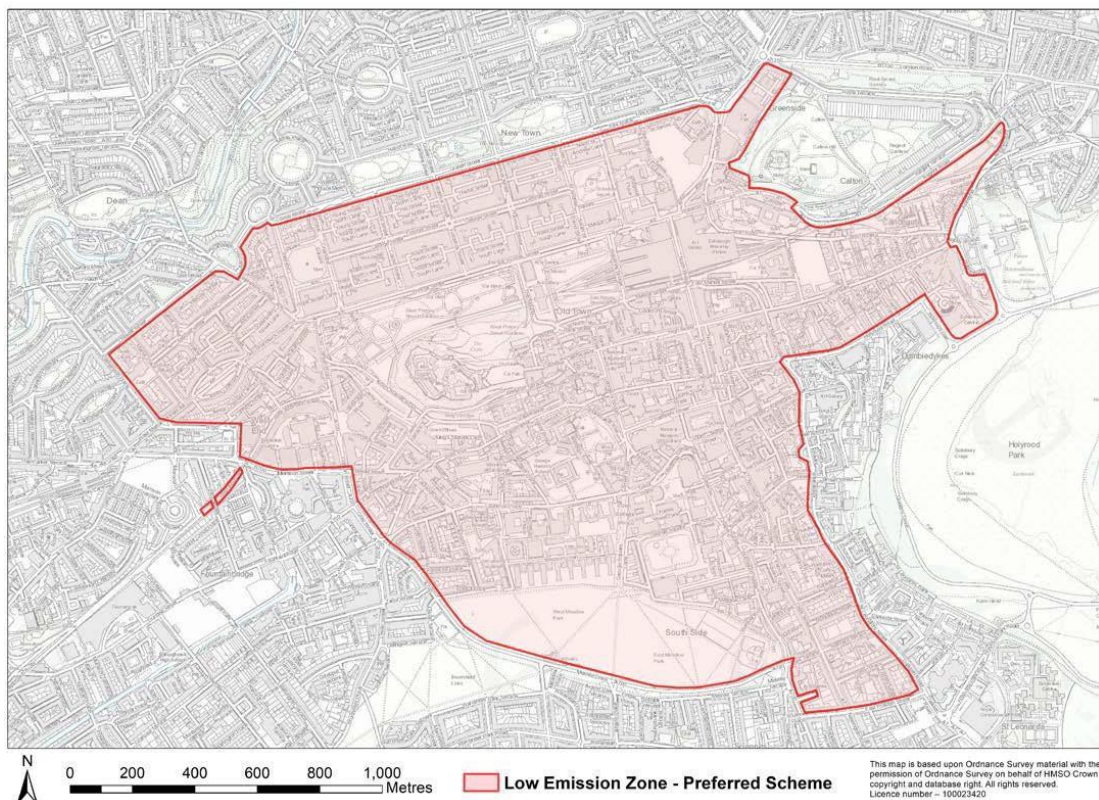


Figure 1. LEZ Boundary

Table 1 denotes the boundary of the Scheme. All roads within the Scheme boundary are listed below. Roads or road sections that are defined as 'special' or 'private', as defined in section 151(1) of the Roads (Scotland) Act 1984, cannot be specified within the Scheme according to the Act. Roads that cannot be specified as part of the LEZ, are defined as 'not specified' and are denoted with an asterisk (*).

Table 1. Roads within Scheme boundary

Road specified within Scheme Boundary	Detail
Abbeyhill Crescent	Full length
Alva Street	Full length
Atholl Crescent	Full length
Atholl Crescent Lane	Full length
Bakehouse Close	Full length
Bernard Terrace	Full length
Blackfriars Street	Full length
Blair Street	Full length
Boroughloch	Full length
Borthwick's Close	Full length
Boyd's Entry	Full length
Bread Street	Full length
Bread Street Lane	Full length
Brighton Street	Full length
Bristo Place	Full length
Bristo Port	Full length
Brown's Close	Full length
Brown's Court	Full length
Buccleuch Place	Full length
Buccleuch Place Lane	Full length
Buccleuch Street	Full length
Buccleuch Terrace	Full length
Bull's Close	Full length
Calton Hill	Full length
Calton Road	Full length
Cambridge Street	Full length
Cambridge Street Lane	Full length
Campbell's Close	Full length
Candlemaker Row	Full length
Canning Street	Full length
Canning Street Lane	Full length
Canongate	Full length
Castle Street	Full length
Castle Terrace	Full length
Castlehill	Full length
Cathedral Lane	Full length
Chalmers Close	Full length
Chalmers Street	Full length
Chambers Street	Full length
Chapel Street	Full length
Charlotte Lane	Full length
Charlotte Square	Full length
Chuckie Pend	Full length
Clerk Street	Full length

Clyde Street North Lane	Full length
Coates Crescent	Full length
Cockburn Street	Full length
Coinyie-House Close	Full length
Cooper's Close	Full length
Cornwall Street	Full length
Cowan's Close	Full length
Cowgate	Full length
Cowgatehead	Full length
Cranston Street	Full length
Crichton Street	Full length
Crichton's Close	Full length
Davie Street	Full length
Drummond Street	Full length
Dunbar's Close	Full length
Dyer's Close	Full length
East Adam Street	Full length
East Crosscauseway	Full length
East Fountainbridge	Full length
East Market Street	Full length
Elder Street	Full length
Forrest Hill	Full length
Forrest Road	Full length
Forsyth's Close	Full length
Frederick Street	Full length
Galloway's Entry	Full length
Gentle's Entry	Full length
George IV Bridge	Full length
George Square	Full length
George Square Lane	Full length
George Street	Full length
Gifford Park	Full length
Gilmour Street	Full length
Gladstone Court	Full length
Glen Street	Full length
Glenfinlas Street	Full length
Grassmarket	Full length
Grindlay Street	Full length
Grindlay Street Court	Full length
Gullan's Close	Full length
Guthrie Street	Full length
Haddon's Court	Full length
Hammermen's Entry	Full length
Hanover Street	Full length
Hardwell Close	Full length
Hastie's Close	Full length
Heriot Bridge	Full length
High Riggs	Full length
High School Wynd	Full length
High School Yards	Full length
High Street	Full length
Hill Place	Full length
Hill Square	Full length
Hill Street	Full length
Hill Street North Lane	Full length

Hill Street South Lane	Full length
Hope Park Crescent	Full length
Hope Park Terrace	Full length
Hope Street	Full length
Howden Street	Full length
Hunter Square	Full length
Hunter's Close	Full length
Hutton Road	Full length
Hyndford's Close	Full length
Infirmary Street	Full length
Inglis Court*	Full length
Jeffrey Street	Full length
Johnston Terrace	Full length
Keir Street	Full length
Kennedy Walk	Full length
King's Stables Lane	Full length
King's Stables Road	Full length
Lady Lawson Street	Full length
Lady Wynd	Full length
Lamb's Close	Full length
Lauriston Gardens	Full length
Lauriston Park	Full length
Lauriston Place	Full length
Lauriston Street	Full length
Lawnmarket	Full length
Leith Street	Full length
Little King Street	Full length
Lochend Close	Full length
Lonsdale Terrace	Full length
Lothian Road	From Bread Street-Morrison Street Junction to Shandwick Place-Princes Street Junction
Lutton Place	Full length
Manor Place	Full length
Market Street	Full length
Marshall Street	Full length
Meadow Lane	Full length
Melville Street	Full length
Melville Street Lane	Full length
Merchant Street	Full length
Meuse Lane	Full length
Montague Street	Full length
Morrison Link	Full length
Mound Place	Full length
Multrees Walk	Full length
Nether Bakehouse	Full length
New Assembly Close	Full length
New Johns Place	Full length
New Skinner's Close	Full length
New Street	Full length
Nicolson Square	Full length
Nicolson Street	Full length
Niddry Street	Full length
Niddry Street South	Full length
Nightingale Way	Full length

North Bank Street	Full length
North Bridge	Full length
North Castle Street	Full length
North Charlotte Street	Full length
North St Andrew Lane	Full length
North St Andrew Street	Full length
North St David Street	Full length
Old Fishmarket Close	Full length
Old Infirmary Lane	Full length
Old Tolbooth Wynd	Full length
Oxford Street	Full length
Panmure Place	Full length
Parliament Square	Full length
Pollock's Close	Full length
Potterrow	Full length
Princes Street	Full length
Queensferry Street	From Randolph Crescent-Randolph Place Junction to Shandwick Place
Queensferry Street Lane	Full length
Ramsay Garden	Full length
Ramsay Lane	Full length
Randolph Lane	Full length
Randolph Place	Full length
Rankeillor Street	Full length
Reekies Court	Full length
Regent Road	From Roundabout outside St Andrew's House to Princes Street-Leith Street Junction
Register Place	Full length
Reid's Close	Full length
Richmond Lane	Full length
Richmond Place	Full length
Riego Street	Full length
Robertson's Close	Full length
Robertson's Court	Full length
Rose Street	Full length
Rose Street North Lane	Full length
Rose Street South Lane	Full length
Roxburgh Place	Full length
Roxburgh Street	Full length
Rutland Court	Full length
Rutland Court Lane	Full length
Rutland Square	Full length
Rutland Street	Full length
Shandwick Place	Full length
Simon Square	Full length
Simpson Loan	Full length
South Bridge	Full length
South Charlotte Street	Full length
South Clerk Street	Full length
South College Street	Full length
South Gray's Close	Full length
South St Andrew Street	Full length
South St David Street	Full length

Spittal Street	Full length
Spittal Street Lane	Full length
St Andrew Square	Full length
St Giles Street	Full length
St James Place	Full length
St John Street	Full length
St Mary's Street	Full length
St Ninian's Row	Full length
St Patrick Square	Full length
St Patrick Street	Full length
Stafford Street	Full length
Stevenlaw's Close	Full length
Sugarhouse Close	Full length
Teviot Place	Full length
The Mound	Full length
Thistle Street	Full length
Thistle Street North East Lane	Full length
Thistle Street North West Lane	Full length
Thistle Street South East Lane	Full length
Thistle Street South West Lane	Full length
Tron Square	Full length
Upper Bow	Full length
Vennel	Full length
Victoria Street	Full length
Walker Street	Full length
Warden's Close	Full length
Waterloo Place	Full length
Waverley Bridge	Full length
West Adam Street	Full length
West Approach Road	From Morrison Link Junction to Lothian Road
West Bow	Full length
West College Street	Full length
West Crosscauseway	Full length
West Nicolson Street	Full length
West Port	Full length
West Register Street	Full length
West Register Street Lane	Full length
West Richmond Street	Full length
William Street	Full length
William Street North East Lane	Full length
William Street North West Lane	Full length
William Street South East Lane	Full length
William Street South West Lane	Full length
Young Street	Full length
Young Street North Lane	Full length
Young Street South Lane	Full length

Road not specified within Scheme boundary	Detail
Archibald Place*	Full length
Boroughloch Square*	Full length
Castle Esplanade*	Full length

Charles Street*	Full length
Charles Street Lane*	Full length
Charteris Place*	Full length
Chester Street Mews*	Full length
College Wynd*	Full length
Geddes' Entry*	Full length
Gilmour's Entry*	Full length
Gray's Court*	Full length
Hamilton's Folly Mews*	Full length
Inglis Court*	Full length
Kincaid's Court*	Full length
Morgan Lane*	Full length
Nether Craigwell*	Full length
Porteous' Pend*	Full length
Quarry Close*	Full length
Reid's Court*	Full length
St James Square*	Full length
Stafford Street Lane*	Full length
Thistle Court*	Full length
Webster's Land*	Full length
Windmill Lane*	Full length
Windmill Street*	Full length

Operation & Grace Period

The Scheme will be introduced on 31 May 2022 and operate 24 hours a day, 7 days a week, all year round. This is the default position for all LEZs in Scotland, according to the Guidance.

It is proposed that a two-year grace period will start on the day the LEZ is introduced (31 May 2022) and end on 31 May 2024. Enforcement against non-compliant vehicles will commence from 1 June 2024.

See further details and justification for the proposed grace period on pages 26 and 38 of this document.

The Act allows for the LEZ, or part of the LEZ to be temporarily suspended in emergency situations, such as a road traffic collision on the wider network that requires all vehicles to be temporarily diverted through the Scheme area (but only where vehicles follow prescribed diversionary routes). The Act also allows for the LEZ, or part of the LEZ, to be temporarily suspended for events.

In both instances, to encourage compliance and meet Scheme objectives, suspensions will only be granted in exceptional circumstances and would be reviewed on a case-by-case basis.

Vehicles included in Scope & Emission Standards

The Scheme will apply to all types and classes of vehicles according to the Act, with the exception of motorcycles and mopeds. Cars (light passenger vehicles), minibuses, buses and coaches, light goods vehicles and heavy goods vehicles that do not meet the minimum emission standards, or are not subject to an exemption, are within the scope of the Scheme.

Mandatory nationally consistent emission standards for Scottish LEZs have been set for the majority of petrol and diesel vehicle classifications (e.g., buses, taxis, vans, HGVs, cars, motorcycles) within the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021.

LEZ emission standards are outlined in Table 1a, by engine/fuel type below:

Table 1a Current LEZ Emission Standards in Scotland

Engine (Fuel) Type	Vehicle Category	Emission Standards	Euro Categories
<i>Compression ignition (diesel) engine</i>	Heavy-duty vehicles (e.g., HGVs and buses/coaches)	Euro VI	M2, M3, N2, N3
	Light passenger and light goods vehicles	Euro 6	M1, M2, M3, N1, N2
	Special category vehicles: an ambulance (which is not exempt under the Regulations) a hearse a motor caravan	Euro 6	M1, M2, M3
<i>Positive ignition (petrol and gas) engine</i>	Heavy-duty vehicles (e.g. HGVs and buses/coaches)	Euro IV	M2, M3, N2, N3
	Light passenger and light goods vehicles	Euro 4	M1, M2, N1, N2
	Special category vehicles: an ambulance (which is not exempt under the Regulations) a hearse a motor caravan	Euro 4	M1, M2, M3

Enforcement, Penalty Charges & Offences

The Council will conduct all LEZ enforcement in accordance with the Act and the Regulations.

The registered keeper of a vehicle, or persons liable other than the registered keeper, can be subject to a penalty charge if they drive within the Scheme boundary in a non-compliant vehicle, in accordance with sections 5-6 of the Low Emission Zones (Emission Standards, Exemptions and Penalty Charges) (Scotland) Regulations 2021.

Determining a vehicle's emission standard, will be on the basis of a record produced by an approved device and comparison with DVLA data, according to the Act and Regulations. Automatic Number Plate Recognition (ANPR) cameras will be used as the basis for LEZ enforcement, in line with Scotland's other LEZs.

The Council can issue a Penalty Charge Notice (PCN) to the registered keeper of a non-compliant vehicle driving within the Scheme boundary during its hours of operation. A PCN will be issued for each contravention detected, up to once per vehicle per day. A PCN must be served within 28 days of the offence detection. The PCN must be paid within 28 days of issue of the PCN (this is called the 'payment period'), or within 14 days of issue for a discounted rate. The PCN should be posted to the registered keeper of the vehicle.

Penalty rates, discounts and surcharges are set by vehicle category, according to Schedule 4 of The Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021). See Table 2, below:

Table 2. Penalty Charge Notice (PCN) rates, by vehicle class and tier

Vehicle category	Initial Penalty Charge	Subsequent Penalty Charges			
	1	2	3	4	5
Light passenger vehicle (including cars)	£60	£120	£240	£480	£480
Minibus	£60	£120	£240	£480	£960
Bus and coach	£60	£120	£240	£480	£960
Light goods vehicles	£60	£120	£240	£480	£480
Heavy goods vehicle	£60	£120	£240	£480	£960
Special Purpose Vehicles (SPV)	£60	£120	£240	£480	£480

The initial penalty charge for all non-compliant vehicles across all vehicle categories is set at £60, with a payment period set at 28 days from the date the penalty charge notice is served. The penalty charge rate is reduced by 50% if paid within 14 days. The penalty rate doubles for each subsequent contravention (i.e., the same person with the same vehicle driving within the same LEZ) within a 90 day period, such as up to £480 for light passenger vehicles or £960 for heavy goods vehicle. If contraventions occur more than 90 days apart, the initial contravention penalty charge rate would be applied to both contraventions. The purpose of the surcharge resetting after 90 days is to ensure that those who regularly contravene the LEZ are penalised appropriately.

If a PCN remains unpaid after the expiry of the 28-day payment period (and no representation is received) the Council can issue a 'charge certificate'. A charge certificate increases the penalty charge amount by 50%. If the increased charge is not paid within 14 days, the Council can recover the charge certificate (and penalty charge) as an enforceable debt.

Representations in respect of penalty charges may be made, via a formal appeals process, to challenge a PCN. Appeals will be in accordance with Section 8 of the Low Emission Zones (Emission Standards, Exemptions and Penalty Charges) (Scotland) Regulations 2021.

Contravention of the Scheme is a civil matter. However, regulation 12 of the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021 states that a criminal offence occurs if a person interferes with the operation of an LEZ scheme. A person will commit a criminal offence if, with the intention of avoiding payment of a PCN, or if acting with intent to avoid being identified as having failed to pay a penalty charge, the person:

- Interferes with an approved device
- Interferes with an LEZ traffic sign
- Obscures a registration plate
- Makes or uses false documents

A person guilty of an offence under regulation 12 is liable on summary conviction to a fine not exceeding level 5 on the standard scale (which equates to £5000). In these circumstances, the Council will liaise with Police Scotland where there is suspicion that a criminal offence has been committed.

National Exemptions

Certain vehicles (and groups of vehicles) are exempted nationally from Scotland's LEZs according to [The Low Emission Zones \(Emission Standards, Exemptions and Penalty Charges\) \(Scotland\) Regulations 2021](#). These vehicle types and groups, are summarised in Table 3, below.

Table 3. National Exemptions

Vehicle type	Description
Emergency vehicles	The vehicle is being driven by any person who is: <ul style="list-style-type: none"> • undertaking their duty as a constable; • providing a response to an emergency at the request of the Scottish Ambulance Service Board; • exercising the functions of the Scottish Ambulance Service Board, the Scottish Fire and Rescue Service, Her Majesty's Coastguard or the National Crime Agency.
Naval, military or air force vehicles	Vehicles being used for naval, military or air force purposes.
Historic vehicles	The vehicle was manufactured or registered under the Vehicle Excise and Registration Act 1994 for the first time at least 30 years ago; The vehicle is no longer in production; and The vehicle has been historically preserved or maintained in its original state and has not undergone substantial changes in the technical characteristics of its main components.

Vehicles for disabled persons	<p>The vehicle is being driven by any person who is in receipt of a badge (a blue badge) that has been issued under Section 21(2) of the Chronically Sick and Disabled Persons Act 1970,</p> <ul style="list-style-type: none"> • a passenger in the vehicle has been issued with a badge under that Section of that Act; or
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Vehicle type	Description
	<ul style="list-style-type: none"> • a badge for the vehicle has been issued under Section 21(4) of that Act; or • a reduction in annual rate of vehicle excise duty applies because the vehicle is being used by a disabled person in receipt of personal independence payment at the standard rate; or <p>Vehicles registered with a 'disabled' or 'disabled passenger vehicles' tax class e.g. the vehicle is exempt from payment of vehicle excise duty under paragraph 19(1) or 20(1) of schedule 2 of the Vehicle Excise and Registration Act 1994 (exemptions from excise duty for vehicles used by disabled persons).</p>
Showman vehicles	<p>Vehicles described as either “showman’s goods vehicle” or “showman’s vehicle” according to Section 62(1) of the Vehicle Excise and Registration Act 1994. Note: these are highly specialised vehicles used for the purposes of travelling showmen, where the vehicle is used during the performance, used for the purpose of providing the performance or used for carrying performance equipment.</p>

Section 17 of the Act includes that local authorities may grant and renew ‘time-limited exemptions’, in respect of a vehicle or type of vehicle for the purpose of section 6(1)(b), by reference to the vehicle’s use. The maximum period for which a ‘time-limited exemption’ may be granted is a period of 1-year. However, to encourage compliance and to meet Scheme objectives, exemptions will only be granted in exceptional circumstances and would be considered on a case-by-case basis.

Local ‘Time-limited’ Exemptions

The Council can grant local ‘time-limited’ exemptions for a vehicle or type of vehicle for up to one year, according to the Regulations. However, to encourage compliance and to meet Scheme objectives the Council has decided that, generally, no local ‘time-limited’ exemptions will be granted. However, it is recognised that there may be exceptional circumstances where a local ‘time-limited’ exemption may be permitted.

The acceptability of a local exemption request is proposed to be determined on a case-by-case basis via the establishment of an LEZ Local Exemption Advisory Panel (LEZ-LEAP), which will meet quarterly, or as required, as part of the LEZ Delivery Group. It is anticipated that membership LEZ-LEAP would be decided by the LEZ Delivery Group including representatives from the Council’s enforcement team and Transport Scotland. The LEZ-LEAP will make recommendation(s) to the LEZ Delivery Group. The Delivery Group will then decide on whether an exemption will be permitted.

Network Management

The Council is developing a Network Management Strategy (NMS). Its purpose is to ensure effective and efficient traffic operation around the boundary and try to mitigate any potential impacts. It will identify specific measures at locations around the boundary such as junction reconfigurations, optimising signals staging, improved signage and better links to the Urban Traffic Control system and will be developed in partnership with stakeholders. The NMS will seek to build on previous engagement/suggestions by communities as much as possible. Developing a complementary signage strategy will also form part of the NMS to help redirect non-compliant traffic in advance of the city centre, reducing potential displacement impacts.

An LEZ annual progress report is required by the Regulations, on the operation and effectiveness of the Scheme. This will be informed by a robust monitoring regime that will inform the NMS and may cover public transport journey times, traffic surveys and public opinion surveys as well as the Council's well-established air quality monitoring network. Traffic monitoring to measure traffic displacement will be undertaken both prior to and during the scheme's operation in 2024 to ensure it is evidence-led and responsive.

Traffic monitoring to measure traffic displacement will be undertaken both prior to and during the Scheme's operation in 2024 to ensure the NMS is evidence led and responsive.

Strategy

Introduction

Scottish Government's Programme for Government in 2017/18 made a commitment to introduce Low Emission Zones (LEZs) with local authorities in Scotland's four largest cities (Aberdeen, Dundee, Edinburgh and Glasgow) following recommended assessment methodologies outlined in the Cleaner Air for Scotland Strategy (CAFS) – National Low Emission Framework. The Transport (Scotland) 2019 Act was thereafter the key delivery driver for Low Emission Zones in Scotland. The Council's coalition administration's Commitment 18 seeks to improve Edinburgh's air quality and reduce carbon emissions, as well as explore the implementation of Low Emission Zone(s).

Overall, the Council is committed to delivering a sustainable future for the city and its citizens, as outlined in the recently published City Mobility Plan (CMP) and the 2030 Climate Strategy. The Final LEZ scheme is supported by these Plans. In addition, the developing new Local Development Plan – 2030 City Plan – also takes account of the Edinburgh LEZ Scheme. In terms of the Local Air Quality Management regime, the Final LEZ Scheme supports the actions the Council are taking to improve poor air quality. Further details are provided below.

Planning and Transport Strategies

Edinburgh's Low Emission Zone sits under the City Mobility Plan (CMP), Edinburgh's 10-year local transport strategy and aligns with the Edinburgh City Centre Transformation project (ECCT)- see Figure 3. Together these projects aim to improve health, wellbeing, placemaking and connectivity and have a key focus on prioritising sustainable travel choices to support the city's 2030 net zero carbon target, reducing the need for private car use and creating more pleasant environments for people to live, work and enjoy leisure time.



Figure 2. LEZ is a key deliverable of the City Mobility Plan, the Council's local transport strategy to 2030.



Figure 3. The relationship between Low Emission Zone(s), City Mobility Plan, Edinburgh City Centre Transformation and the developing 2030 City Plan.

The Council continues to support a range of policies and measures that will encourage modal shift away from private car use, including, an Active Travel Action Plan, provision of Park and Ride, Controlled Parking and Priority Parking Areas. A number of policies in the City Mobility Plan will reinforce this work, see figure 2.

To be truly effective, the implementation of LEZ will be supported by policies and interventions across the whole of Edinburgh as part of a toolkit of measures. The proposal has therefore also been developed in close collaboration with the preparation of the proposed local development plan – 2030 City Plan, see Figure 3.

As part of LEZ delivery, a Network Management Strategy is also under development.

Local Air Quality Management and Cleaner Air for Scotland

LEZs are recognised by the City as an established tool across Europe to reduce harmful emissions from transport by restricting access to urban areas for the most polluting vehicles. LEZs are therefore an important tool to help improve public health by accelerating the use of cleaner vehicles and encouraging behaviour change, alongside other measures.

Air quality monitoring and management activities in Scotland is primarily driven by the 2008 ambient air quality directive (2008/50/EC), which was incorporated into Scottish law through the Air Quality Standards (Scotland) Regulations 2010. At a local level, The Environment Act 1995 and Regulatory Reform (Scotland) Act 2014 sets out the Local Air Quality Management (LAQM) regime to assist Local Authorities in achieving air quality standards and objectives to protect human health.

The Cleaner Air for Scotland (CAFS) strategy, released in 2015, sets out how Scottish Government and its partner organisations propose to further reduce air pollution to protect human health and fulfil Scotland’s legal responsibilities as soon as possible. The strategy includes commitments to ensure a consistent approach to the appraisal, design and implementation of Low Emission Zones (LEZ) through the application of the National Low Emission Framework (NLEF), in conjunction with the National Modelling Framework (NMF).

The Council’s statutory duty under the requirements of the Local Air Quality Management (LAQM) regime ensures air pollution across Edinburgh is reviewed and assessed annually. Where air quality is deemed to be in breach of statutory objectives, the Council is also obliged to produce an Air Quality Action Plan with the aim of reducing pollution. Despite improvements in air quality since the introduction of the Plan (updated in 2010), there remain locations where the Air Quality Objective for annual mean NO₂ are not being met, especially in the Central AQMA. While the number of exceedances of the objective has decreased, the proposed LEZ is to be introduced to accelerate the required compliance.

The Council’s [2021 Air Quality Annual Progress Report](#), recently approved by Scottish and UK Governments, states that the implementation of the LEZ should be a priority for the Council over the next year. The Council will also complete a revision of the NO₂ Air Quality Action Plan, in conjunction with the City Mobility Plan and the Scottish Government’s clean air strategy - Cleaner Air for Scotland 2. The LEZ Final Scheme for Edinburgh will form a major action of the Air Quality Action Plan.

Addressing the Climate Emergency

The Council declared a Climate Emergency setting a vision for Edinburgh to be net zero by 2030. Delivering net zero emissions by 2030 and adapting to the impacts of climate change will require system-wide and transformational change across all sectors of the city. The CMP and 2030 Climate Strategy and Implementation Plan represent substantial programmes of work to deliver reductions in CO₂ emissions. Delivery of actions to manage demand, decarbonise transport and accelerate modal shift will require support from key partners, including citizens, businesses, communities, Transport Scotland, Scottish and UK Governments.

The [2030 Climate Strategy](#) Implementation Plan sets out a framework for assessing and measuring progress towards the strategy's comprehensive outcomes. It supports the development of a Low Emission Zone, which will help reduce pollution across the whole city, not just within the zone, which the Final LEZ Scheme aims to do. The Plans also commits the Council to continue to work with Scottish Government to look at opportunities for promoting zero carbon city centres within the LEZ structure.

LEZ Preparation Strategy

The Council's developing Preparation Strategy outlines a high-level strategy for LEZ Communications and signage works, in relation to wider programme delivery. See Figure 4.

The Preparation Strategy covers the period from Scheme introduction to enforcement, starting from 31 May 2022 until June 2024 and beyond.

The Strategy seeks to inform and educate those travelling to/within the City Centre and to encourage positive behaviour change in support of LEZ objectives, both during the grace period and beyond. See also Grace Period(s).

To achieve this, the Strategy will focus on three phases of local communications campaigning, in alignment with ongoing and future national LEZ communications campaigns and delivery of LEZ infrastructure.

Phase one of the local communications campaign will launch on 31 May 2022 and focus on the reasons for why the Scheme is required. Phases two and three will focus increasingly on network changes and how these may impact on drivers and those travelling to/through the City Centre, before focusing on enforcement. The Strategy will also implement statutory and advisory LEZ signage, following a review of locations and with consideration for local requirements and wider communications campaigning.

The Preparation Strategy will align with LEZ timelines for Network Management and Enforcement System delivery and will adapt communications and engagement approaches based on data obtained via LEZ Monitoring and Reporting during this period.

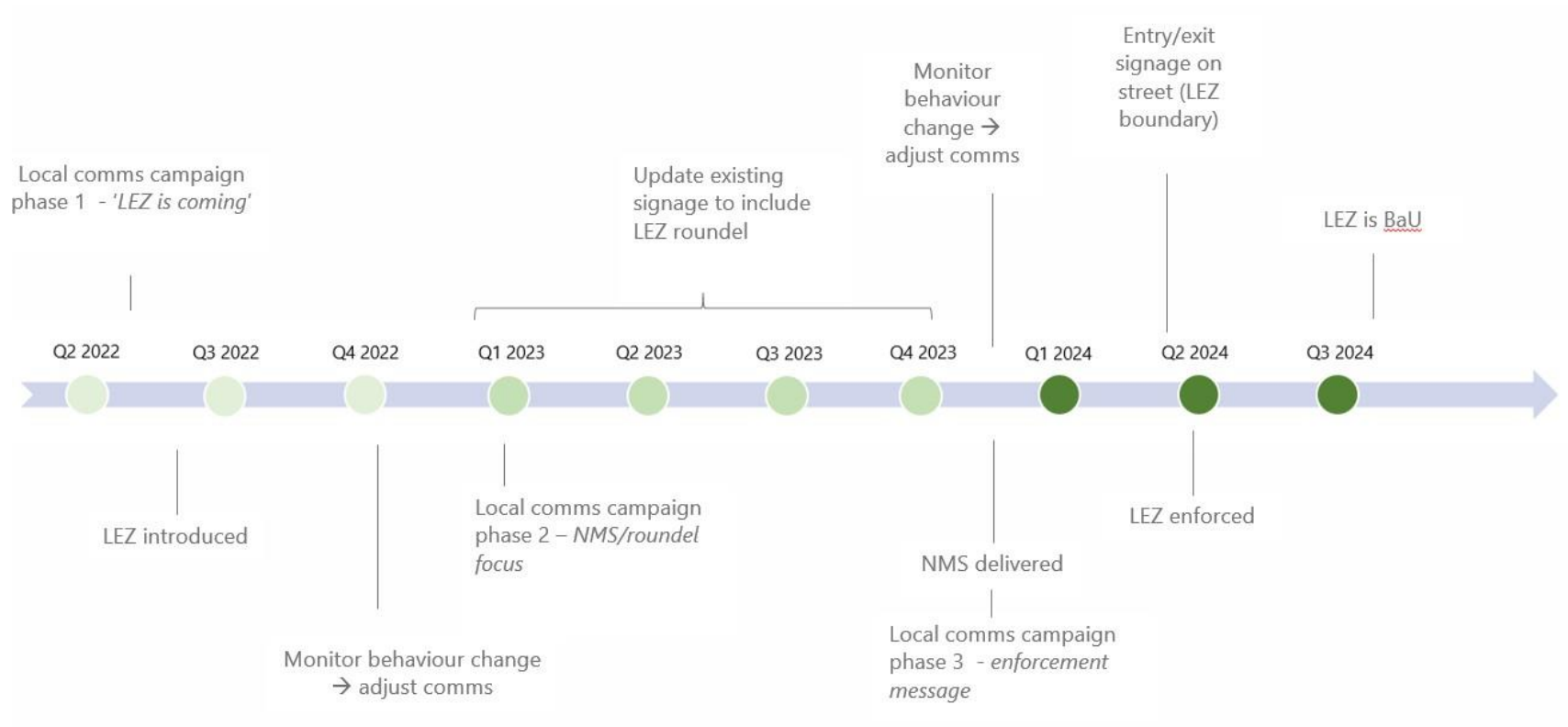


Figure 4. LEZ Preparation Strategy, 2022-2024

Governance

The LEZ Scheme for Edinburgh has been developed with partners adhering to strict governance structure as detailed in Figure 5.

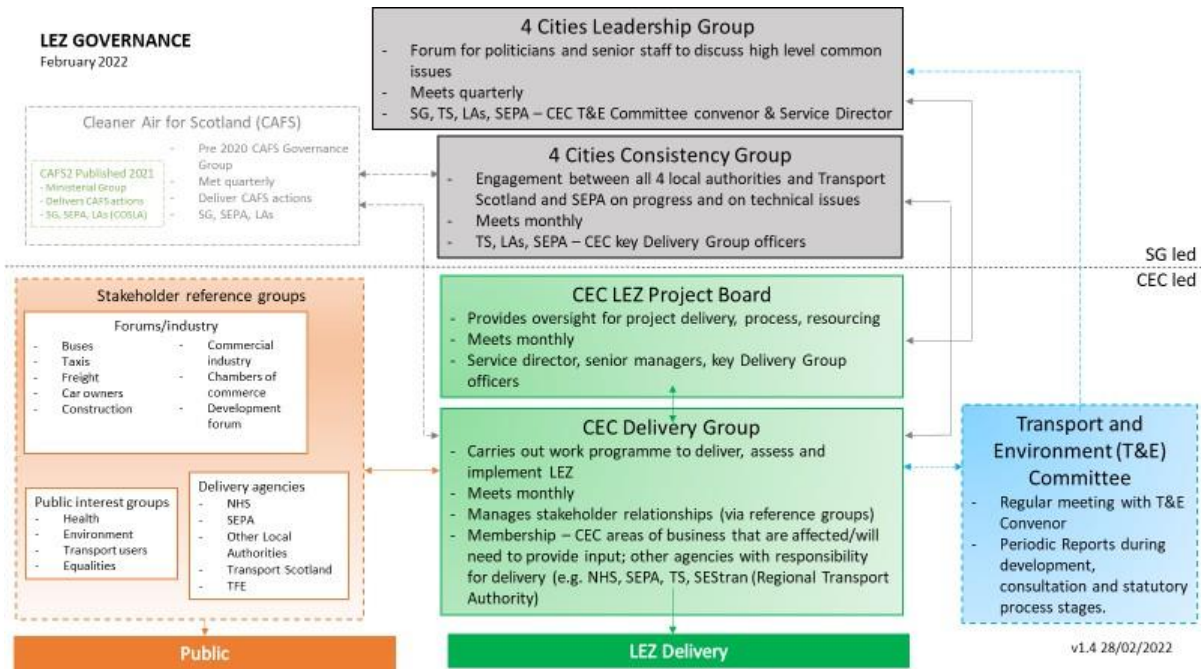


Figure 5. LEZ Governance Structure, in relation to key stakeholders

Figure 6 below shows the roles and responsibilities of LEZ Governance. Senior Management Team (SMT) and Transport and Environment Committee (TEC) govern LEZ. G Barwell, Service Director – Operational Services within the Place Directorate of the Council, acts as chair for both the LEZ Project Board and LEZ Delivery Group and the lead director in approving key stages of LEZ scheme development.

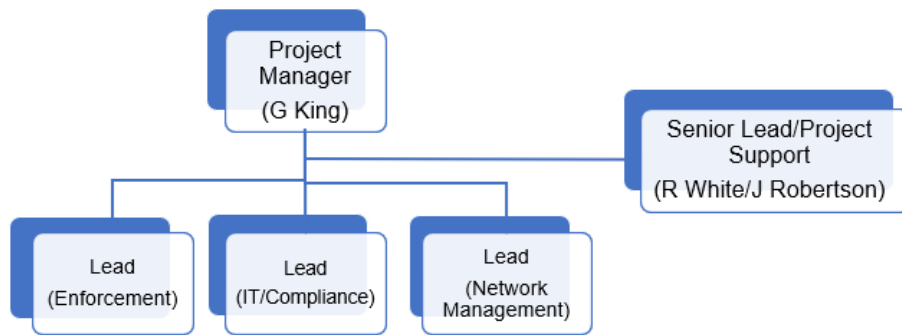
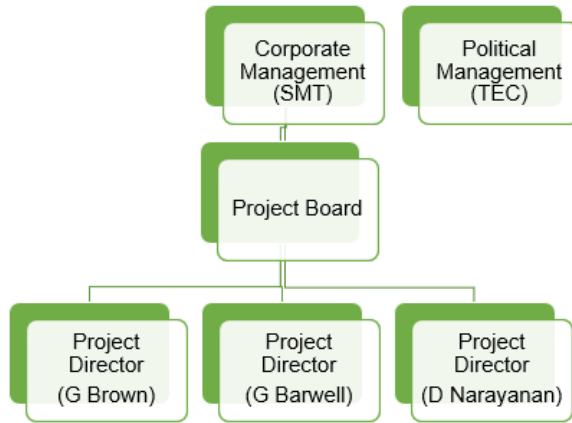


Figure 6. LEZ Governance, Roles & Responsibilities

The Council's Transport and Environment Committee ('the Committee') is the overarching political decision-making body within the Council in terms of the LEZ Scheme. It has responsibility for approving the Council's plans for city growth and place planning, relating to transport and the environment.

This Committee has overseen every key stage of the LEZ Scheme progression, including giving approval for the Final LEZ Scheme, as presented in this document, on 31 March 2022.

All the reports presented to the Committee can be found on the Council's [LEZ evidence webpage](#) and are summarised in Table 4, below

The convenor of the Committee also represents the Council at the LEZ Leadership Group, which was set up to oversee the introduction of LEZs in Scotland.

Table 4. LEZ reports to Transport and Environment Committee

Year	Month	Report Name
2018	May	Developing Low Emission Zones in Edinburgh
2019	February	Connecting our Cities, Transforming our Places
	May	Tackling Air Pollution – Low Emission Zone
	October	Edinburgh's Low Emission Zones – update
2020	February	Low Emission Zone - Regulations, Guidance, (Transport Scotland) Consultation Response & Programme
	October	Business Bulletin: Edinburgh Low Emission Zones Update
2021	June	Low Emission Zone Preferred Scheme for Consultation
	October	Low Emission Zone Consultation and Development
2022	January	Low Emission Zone Carbon Impact
	March	Low Emission Zone Objections Report & Final Submission

The Council is also represented on the national LEZ Consistency, Enforcement and Communications Working Groups, along with representatives of Transport Scotland and the other LEZ cities.

Summary of Air Quality, Climate Change and Transport Issues

Air pollution is a serious concern for public health globally and locally, with greatest impacts on the more vulnerable members of society including: the very young and the elderly or those with existing health conditions such as asthma, and other respiratory and cardiovascular diseases. Road transport is a significant contributor to air pollution. Poor air quality is associated with around 200 attributable deaths in Edinburgh and around 22,500 lost life years across the Scottish population annually, with health impacts costing an estimated £15 billion per year across the UK.

The Council's statutory duty under the requirements of the Local Air Quality Management (LAQM) regime (Environment Act 1995, as amended) ensures air pollution across Edinburgh is reviewed and assessed annually. In response to this, the Council has declared five Air Quality Management Areas (AQMAs) due to exceedances of the national Air Quality Objectives for Nitrogen Dioxide (NO₂) and one AQMA for Particulate Matter (PM₁₀). Road transport emissions are significant contributors to poor air quality, especially for the pollutant NO₂.

The Council is also obliged to produce an Air Quality Action Plan with the aim of reducing pollution. Despite improvements in air quality since the introduction of the Plan (updated in 2010), there remain locations where the Air Quality Objective for annual mean NO₂ are not being met.

The Council's most recent Annual Progress Report (2021) details the review and assessment of air pollution in the City for the calendar year 2020 and the previous five years. Significant decreases (up to 29.4µg/m³) were observed from 2019 to 2020, as a result of the COVID-19 pandemic, whereby the UK and Scottish Governments enforced lockdowns and provided guidance for people to work at home/stay local in order to prevent the spread of the virus. This meant that traffic volumes decreased across the UK, and as such NO₂ concentrations have been observed to have decreased as well. However, in Edinburgh, there remained an exceedance of the statutory objectives in the Central AQMA.

Provisional pollution data for 2021 show potential for a number of exceedances of the objectives in the city, hence it is necessary to proceed with actions to improve air quality.

The Council is currently reviewing the Air Quality Action Plan for NO₂. In January 2022, the Transport and Environment Committee agreed that, if approved, the LEZ will constitute a significant action in the forthcoming revision of the Plan. Therefore, Ministers feedback will inform the Draft Plan, which will be presented to Committee in the summer of 2022, prior to an obligatory statutory consultation process. It should be noted that the Action Plan consultation will not constitute the question of LEZ implementation or design but rather it's impact in terms of how much it will improve air quality, nor not (for example in areas of traffic displacement), while also considering what other measures will be necessary to bring concentration down across the City.

Overall, while the number of exceedances of the statutory air quality objectives has decreased in the City, in recent years, the proposed LEZ is to be introduced to accelerate the required compliance with the legislation.

The Council declared a Climate Emergency in 2019 setting a vision for Edinburgh to be net carbon zero by 2030. Meeting this target and adapting to the impacts of climate change will require system-wide and transformational change across all sectors of the city.

The CMP and 2030 Climate Strategy implementation plans represent substantial programmes

of work to deliver reductions in CO₂ emissions. Delivery of actions to manage traffic demand, decarbonise transport and accelerate a shift to the use of the most sustainable modes of travel (particularly walking, cycling and public transport) will require support from the Council's key partners, including citizens, businesses, communities, Transport Scotland, Scottish and UK Governments.

The LEZ will play an important role in accelerating behaviour change towards more sustainable forms of transport and cleaner vehicle technologies by restricting access to particular vehicles.

The Council is committed to transforming Edinburgh's transport systems into one that is truly sustainable, accessible and efficient. Edinburgh's 10-year transport strategy – the CMP - sets a programme for project delivery towards reaching the net zero target. An LEZ is a key deliverable of the CMP, alongside the Edinburgh City Centre Transformation programme (ECCT) that will prioritise active travel and public transport as desirable and practical travel options across the City Centre.

Behaviour change towards sustainable travel and addressing the Climate Emergency, will be accelerated with financial incentives. The Scottish Government are providing grant funding to the most impacted individuals and businesses by the LEZ. National funding includes provision for public transport infrastructure for local authorities directly affected as well as neighbouring authorities. National funding is also provided for transport operators to retrofit their bus, coach and taxi fleets as well as for eligible low-income households and micro-businesses located within 20km of a proposed LEZ.

The Council's ambitions for a fully sustainable transport system is evidenced across its current programme of works, such as major capital investments in transport infrastructure (Trams to Newhaven, active travel etc.), expansion of parking enforcement and rollout of electric vehicle chargers, to name but a few initiatives. An LEZ, alongside a suite of other tools, will help improve health and wellbeing, placemaking and connectivity, improving the environment for those who live, work, and visit Edinburgh.

LEZ Objectives

The Scheme's Objectives are summarised in Table 5. The table also details proposed measures that consider the effective implementation of the LEZ. See also the Monitoring and Reporting section.

A copy of the [Statement of Reasons – Why Edinburgh Needs a Low Emission Zone](#) and [Proposal to Make a Low Emission Zone Scheme – Statutory Notice](#), are available on the [Council's LEZ evidence webpage](#).

Table 5. LEZ Objectives and Proposed Measures

LEZ Objective	Measure
a) Contribute towards meeting the air quality objectives prescribed under Section 87(1) of the Environment Act (1995).	Downward NO ₂ trend to meet statutory objections (annual mean below 40µg/m ³)
b) Contribute towards reduction of emissions in fulfilment of Part 1 of the Climate Change (Scotland) Act 2009	Transport-related emission reduction (tCO ₂ e). Progress measure towards the Council target of net zero carbon emissions by 2030
c) Minimise the impact from traffic displacement across the city's transport network, related to LEZ scheme	A Network Management strategy to ensure efficient operation across LEZ scheme will include measures such as public transport journey time analysis, traffic surveys and monitoring public feedback
e) Strategically align with Council sustainable transport, active travel and placemaking objectives	LEZ integration strategy, with City Centre Transformation (CCT) projects, the City Mobility Plan (CMP) and Local Air Quality Management statutory regime
d) Strategically align with national funding provision policies, supporting individual and business adaptation	Uptake of LEZ Support Funds and other retrofit funds (Transport Scotland, Energy Savings Trust)

LEZ Appraisal

Introduction

The Council is committed to delivering a sustainable future for the city and its citizens, as outlined in the recently published City Mobility Plan (CMP) and the 2030 Climate Strategy. The Council's Commitment 18 seeks to improve Edinburgh's air quality and reduce carbon emissions, as well as explore the implementation of Low Emission Zone(s). The Local Air Quality Management regime, as defined under the Environment Act 1995, has been successful in reviewing and assessing air quality throughout Edinburgh and therefore providing an understanding of the problems, which are predominately associated with traffic related nitrogen dioxide concentrations. While this work has also led to improvements in air quality, there are still a number of areas where measured concentrations remain above the legal objectives, with the city centre being a key hot-spot.

A copy of the [LEZ Options Appraisal](#) is available on the [Council's LEZ evidence webpage](#).

Initial Assessment

Design of the final Scheme has been informed by a process of appraisal and analysis of various options and impact assessments.

The Cleaner Air for Scotland Strategy (2015) introduced the National Low Emission Framework (NLEF), which is an evidence-based appraisal process to assist local authorities consider transport-related actions to improve local air quality, where transport is identified as the key contributor to air quality problems. The NLEF also provides the framework to ensure the Scottish Environmental Protection Agency (SEPA) supports local authorities throughout the assessment and decision-making process, by the development of the National Modelling Framework (NMF) local model. As a result, the Edinburgh model developed by SEPA represents a standardised approach to modelling for the appraisal process.

Data gathering and analysis has been extensive under these frameworks, while working in partnership with the Scottish Environmental Protection Agency (SEPA), Transport Scotland, the regional transport authority (SEStran), neighbouring local authorities and other key stakeholders. In addition, regular collaboration with the other three cities implementing LEZs, Aberdeen, Dundee and Glasgow, has helped to try and ensure a consistent approach to how LEZs operate in Scotland.

Key principles underpinning the LEZ appraisal process, in addition to consideration of the Scheme objectives, are detailed here:

- Improve air quality - a strong and robust evidence-base via the NLEF, NMF in relation to statutory air quality objectives and air quality progress within AQMAs.
- Evidence-based, targeted approach – as above and taking account of the COVID-19 impact analysis.
- Feasibility and deliverability – ensuring Scheme is delivered according to key design principles (including providing a logical diversion route for non-compliant traffic) considering equalities impacts (including for the COVID-19 pandemic), proportionality, financial costs and public understanding and engagement with the Scheme.

- Strategic Placemaking & Sustainable Transport - aligning with ECCT and other CMP projects to contribute to reductions in carbon emissions and improve health and wellbeing by supporting active travel and public transport infrastructure plans and strategies.

Three options were fully appraised for an LEZ scheme in Edinburgh, as detailed below;

- **Option 1 – City Centre LEZ** – based on the original boundary as proposed for the consultation undertaken in 2019, with minor adjustments. The boundary itself included the West End, Queen Street and the New Town, Picardy Place, Abbeyhill, Pleasance, Meadows and Tollcross. All vehicle types included. This option is also referred to as ‘Large LEZ’ (SEPA) and ‘Original LEZ’ (Jacobs).
- **Option 2 – City Centre LEZ** – a revised City Centre boundary with smaller geographical area than Option 1, to exclude the West End and use Lothian Road and North/South Charlotte Street as the boundary. All vehicle types included. This option is also referred to as ‘Small LEZ’ (SEPA) and ‘Alternative LEZ’ (Jacobs).
- **Option 3 – City Centre and Extended Urban Area LEZs** - included either one of the above City Centre LEZs plus the addition of an extended boundary covering HGVs, LGVs, Minibus, Buses & Coaches in a wider urban area, roughly within the City Bypass. The Extended Urban Area LEZ boundary predominately followed the boundary of the City Bypass (A720) and was originally referred to as the City Wide boundary. The name was amended in 2021 to reflect that it did not include the whole of the Council’s administrative area, rather just an extended urban area outwith the city centre.

Modelling of total CO₂ emissions was also undertaken. This indicated some limitations to CO₂ reduction, with fossil-fuelled vehicles prescribed by the legislation, however reductions were predicted when applying a scenario considering reductions in traffic as part of the Council’s wider measures to encourage and facilitate modal shift to more sustainable options, manage demand, and reduce the need to travel. This ties in with the Schemes wider objectives of aligning with the Council’s sustainable transport policies and national funding provisions.

Consultation and engagement have been essential parts in developing the Scheme. The preferred option was subject to public consultation and stakeholder engagement in summer 2021. Full details on consultation can be found in the ‘Consultation, Engagement and Stakeholder Input’ section, below.

Conclusions from the appraisal work identified the City Centre area as having the greatest magnitude of traffic related pollution problems and breaches of statutory objectives. A City Centre LEZ would support action towards compliance with the air quality objectives and a strong evidence-base highlighted the Central Air Quality Management Area (AQMA) as the focus for targeted interventions.

The LEZ City Centre Option 1 was preferred for delivering air quality improvement since it includes a wider population and a larger portion of the City Centre, including greater coverage of the Central AQMA. This would also support positive behaviour change (modal shift from private car) and contribute towards the objective to reduce greenhouse gases emissions, tying in with the Council’s wider strategies and policies. The scheme aligns well with the delivery of the City Centre Transformation programme.

Based on the modelling work and the consultation process, to help achieve compliance with NO₂ and continue general compliance with Particulate Matter (PM) PM₁₀ and PM_{2.5} Air Quality

Objectives, the LEZ will apply to all vehicle types, apart from motorcycles and mopeds and those subject to a national exemption outlined in the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021.

Vehicles Included in Scope

Based on the modelling work and the consultation process, to help achieve compliance with NO₂ and continue general compliance with Particulate Matter (PM) PM₁₀ and PM_{2.5} Air Quality Objectives, the LEZ will apply to all vehicle types, apart from motorcycles and mopeds and those subject to a national exemption outlined in the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021. Refer to Vehicles included in Scope & Emission Standards section.

Local 'Time-limited' Exemptions

To encourage compliance and to meet Scheme objectives the Council has decided that, generally, no local 'time-limited' exemptions will be granted. However, it is recognised that there may be exceptional circumstances where a local 'time-limited' exemption may be permitted. Page 14 of this document sets out further details on the Council's approach to assessing local exemption requests.

Grace Period(s)

The legislation supporting LEZs stipulates that there must have a minimum of a one-year grace period.

The Appraisal identified a further one-year period would be necessary to support the economic recovery relating to COVID-19 impacts and allow sufficient time for individuals and businesses to secure LEZ support funding where eligible. This 2 year time period will also facilitate transport infrastructure changes that are required around the LEZ boundary to ensure it functions efficiently.

Therefore, a two-year grace period is proposed applying to residents and non-residents. See further details and justification for the proposed grace period on page 38 of this document, including how feedback from consultation and engagement was taken into account.

Strategic Environmental Assessment

A Strategic Environmental Assessment screening process highlighted the need for the LEZ to be assessed as a part of the wider Edinburgh City Centre Transformation programme and City Mobility Plan work. The SEA work concluded that the cumulative impacts of introducing the LEZ along with other policies and strategies, such as the City Mobility Plan and Edinburgh City Centre Transformation, would generally be positive. An area of concern highlighted in the SEA was the potential for negative impacts on air quality as a result of traffic displacement. See also Wider Considerations section.

Network Management Strategy

Modelling of future scenarios predicted any negative air quality impacts around the boundary of the LEZ related to any traffic displacement would be short-lived. Nevertheless, the Council is developing a road Network Management Strategy to ensure that the traffic network functions effectively following the implementation of the LEZ to manage any displacement impacts.

See also Network Management section.

Modelling / Validation

The Scottish Government's Cleaner Air for Scotland strategy (CAFS) introduced both the National Modelling Framework (NMF) and the National Low Emissions Framework (NLEF). The aim of the NMF is to provide evidence for Local Authorities to inform their decision-making process for implementing a Low Emission Zone (LEZ).

Throughout the development of the LEZ, SEPA have supported the Council with the provision of detailed air quality modelling ('Air Quality Evidence Report' – Edinburgh), presentations and on-line visualisation tools to inform the selection of the LEZ options.

Modelled NO₂ concentrations were provided to support the development of LEZ and provide evidence to support the implementation of the Council's LEZ option. Traffic modelling was carried out by Jacobs, predicting changes in vehicle flows and fleet compositions. Traffic model outputs have been used to calculate pollutant emissions and air quality concentrations associated with the implementation of the LEZ options. Calculated changes in Particulate Matter (PM₁₀) emissions are also presented.

SEPA is supporting Council throughout the assessment and the decision-making process, through the development of the National Modelling Framework (NMF) local model. The local model utilises ADMS-Urban, a recognised system that is used around the world for modelling all aspects of air pollution across urban areas.

This air dispersion modelling is supported by traffic modelling undertaken using the Council's strategic VISUM model suite.

All air quality and traffic modelling/validation evidence is available on the [Council's LEZ evidence webpage](#), however the main elements are summarised below. It should be noted that the modelling reports can refer to different names for the options assessed. Clarification is provided below:

- **Option 1 – City Centre LEZ** (based on the original boundary as proposed for the consultation undertaken in 2019, with minor adjustments) is also referred to as Large LEZ (SEPA) and Original LEZ (Jacobs)
- **Option 2 – City Centre LEZ** (a revised City Centre boundary with smaller geographical area than Option 1) is also referred to as Small LEZ (SEPA) and Alternative LEZ (Jacobs)
- **Option 3 – City Centre (original or revised) and Extended Urban Area LEZs.** The Extended Urban Area LEZ boundary that predominately followed the City Bypass (A720) was originally referred to as the City Wide boundary, however as the whole of the Council's administrative area was not included within the zone, the name was amended to the 'Extended Urban Area'.

Further details on the LEZ options are provided above in the Appraisal section.

Traffic Modelling

Traffic modelling was undertaken in VISUM 18. The Base models were those previously created in support of the Edinburgh Tram Final Business case and were last fully recalibrated in spring 2017. Highway demands make use of November 2016 traffic count data collected on behalf of SEPA, however data was checked against 2019 traffic data, also collected under the NMF, and it was determined no significant changes were required.

Four alternative scenarios were considered:

- Base
- Original City Centre LEZ
- Original City Centre LEZ + City Centre Transformation schemes (Option 1 above)
- Alternative City Centre LEZ + City Centre Transformation schemes (Option 2 above).

Two forecast years were assessed – 2019 and 2023. The applied future year fleet mix is an estimate, based on available SEPA / Department for Transport data. Fleet forecasts tend to be optimistic for Edinburgh's fleet and so the 2023 model represents a likely 'future year scenario', post-2023.

All vehicles with an origin or destination within the city centre were assumed to be compliant with LEZ legislation. In addition, non-compliant vehicles which would previously have routed through the city centre would route around the LEZ boundary instead. Virtually no non-compliant vehicles were assumed to cross the boundary. In part, this is a model simplification; however, it also reflects the deterrent nature of the LEZ Scheme.

Buses were coded as fixed routes in the model and were assumed to be 100% compliant within the city centre, considering the majority of services route through the City Centre.

Various other proposals, due to be implemented in the Edinburgh city centre by or shortly after implementation of the LEZ were captured in the modelling.

In terms of modelling the traffic impacts for the addition of an Extended Urban Area boundary, it was considered that qualitative assessments of the impacts would be sufficient. To utilise the Council's VISSUM model would have been very complex and technically difficult. The overall approach was agreed with the Local NMF Group as the most appropriate way forward. Considering the low level of vehicles affected (commercial fleet only) and the need for that fleet to be replaced if operating within the City Bypass area, it was determined that the impact of displacement would be minimal. Further analysis was possible with the air dispersion modelling as detailed below.

The Council, in partnership with SEPA, have undertaken regular traffic ANPR surveys throughout LEZ development, to assess compliance rates by vehicle types. SEPA have continually compared Edinburgh's actual fleet compliance rates, against DEFRA's Emission Factor national fleet projections to inform LEZ development, including the grace period (see page 38).

Air Pollution Dispersion Modelling

The aforementioned LEZ Options were tested using the Local NMF model and the potential outcomes in relation to changes in air quality concentrations associated with the LEZ implementation were considered.

The introduction of an LEZ in Edinburgh city centre will significantly reduce NO_x and PM₁₀ emissions from vehicles, which will result in lower pollutant concentrations within the LEZ. It is predicted that there will be a reduction of NO_x emissions from traffic sources by 55% (equivalent to 25-30 tonnes/year), when compared to 2019 levels. For areas that are not in the LEZ, it is predicted that NO_x emissions from traffic sources will decline by 15%, when

compared to 2019 levels. Overall, NO_x emissions across the model domain will decline by 20% (or 72 tonnes/year), when compared to 2019 levels.

On several roads within the LEZ, NO_x emissions are predicted to decline by over 50%. On Princes Street NO_x emissions are predicted to decline by over 75%.

The NMF process coupled with feedback from the previous consultation process, highlighted significant impacts that could arise with the Option 1 boundary, especially in relation to air quality on Palmerston Place and Chester Street on the western part, where modelled new exceedances were predicted. Traffic on these streets would increase and the proportion of non-complaint vehicles would also increase, as vehicles choose to divert rather than enter the zone. This led to consideration of the Revised Boundary Option 2. A detailed NMF analysis of the City Centre boundary options was undertaken.

Regarding Option 1 - the analysis indicated that in the long-term (future scenario) the impact on Palmerston Place and Chester Street is not sustained. This is likely to be due to less non-compliant traffic needing to use the diverted route, as well as vehicle standards generally improving. Hence the displacement impacts from this boundary are short-lived.

Option 2 (smaller city centre boundary) which includes Lothian Road/Charlotte Square as the main western boundary, showed that existing air quality issues on Lothian Road would be exacerbated and that in the future scenario, these issues would not be resolved. This indicates that it would take a much longer time to resolve the existing air quality problems on Lothian Road.

Further detailed modelling of concentrations at the building facades, which represented residential exposure (relevant receptors) was also undertaken by SEPA. The results of this work showed that the main concern was on Palmerston Place. However, again, with consideration of the 'future scenario' these impacts were likely to be short-lived.

SEPA concluded overall, that whilst Option 1 may result in new model exceedances at the kerbside on Palmerston Place and Chester Street, these are likely to be short-term exceedances may not actually occur as the fleet improves closer towards the predicted 2023 national fleet (future scenario), with LEZ enforcement starting in 2024.

In addition, an indicative assessment of population exposure was also undertaken by considering the displacement impacts along the edges of both city centre boundary options, using the number of residential and commercial properties as a proxy measure for population.

Though Option 1 represented a greater number of properties overall, Option 2 represented a greater magnitude of impacts on properties, when compared to Option 1. Streets on the boundary of Option 2 represent strategic and high-footfall urban centres, with important retail, leisure and commercial functions and draw in significant visiting populations into their vicinities. Any negative impacts for Option 2 boundary are therefore considered to be more significant than those associated with Option 1.

The Extended Urban Area LEZ as part of Option 3 was also investigated, which will not include private vehicles outside of the city centre and thus will only affect a very small proportion of traffic. In this case, air quality improvements will be small and, in these areas, air quality is mostly compliant. Also, the city centre LEZ approach will positively impact on the wider suburban areas. For example, buses which will be required to be compliant to travel through the city centre LEZ, will also emit less pollutants when they travel in suburban areas.

In conclusion, although there were new modelled exceedances predicted with the preferred Option 1, it was determined that because these were short-lived, at low risk of occurring and not as significant when considered population exposure, this was the most appropriate course of action.

Copies of the air quality modelling evidence from [November 2018](#), [Interim 2021](#), [May 2021](#) and [September 2021](#) are available on the [Council's LEZ evidence webpage](#).

Carbon Impact

The LEZs Scheme's role in contributing to reductions in greenhouse gas emissions derived from transport, primarily carbon dioxide ('CO₂', 'carbon') was also considered. CO₂ emission modelling was completed via the evidence-led NMF, which confirms that the enforcement of the vehicle emission standards will not directly reduce CO₂ emissions significantly. Contributions to reducing CO₂ emissions will be achieved via the Scheme's discretionary objectives.

Overall, a direct reduction of 0.04% CO₂ was predicted from the results of the NMF analysis. Scenario testing which considered the implementation of additional demand management measures, such as those aligned to the LEZ wider objectives, resulted in great reductions – up to 5.4% CO₂ reductions, when compared to the baseline.

The analysis showed the importance of ensuring the LEZ is implemented as a part of a suite of measures to tackle climate change.

A copy of the carbon dioxide modelling evidence from [December 2021](#) is available on the [Council's LEZ evidence webpage](#).

COVID-19 Impact Considerations

The unprecedented changes in living and working patterns from the impact of COVID-19 are likely to have had significant effects on air pollution.

In Scotland, during the main COVID-19 pandemic lockdown period in 2020, air pollution (NO₂) levels declined.

Transport Scotland commissioned a study to assess COVID-19 impact on plausible future scenarios (with varying traffic demand and vehicle compliance levels) against the NMF model assessments for the four Scottish Cities. The findings of the study was published on 28 January 2021 - [LEZ Post-Covid Uncertainty Briefing Note](#).

The assessment work for Edinburgh from this study found proposals were robust to variations in network conditions that may occur in a post-COVID-19 world. Critically, the study concluded LEZs are still required to improve air quality and protect public health in Scotland's largest urban City Centres, including Edinburgh's.

Emerging evidence of post-pandemic traffic in Edinburgh indicates a rebound in flows towards pre-pandemic levels and supports the findings of the uncertainty report published by Transport Scotland.

The Integrated Impact Assessment (IIA) for Edinburgh's LEZ indicated potential impacts for certain groups. The proposed 2-year grace period for the Edinburgh LEZ (an additional year to the statutory minimum) will help support economic recovery associated with impacts from COVID-19, allow additional time for residents and businesses to comply with LEZ requirements but also ensuring that air quality benefits are realised. Detailed rationale for the grace period is set out on pages 38/39 of this submission.

Consultation, Engagement and Stakeholder Input

Copies of the consultation analysis from [2019](#) and [2021](#) are available on the [Council's LEZ evidence webpage](#). All decision-making relating to consultation, engagement and stakeholder input evidence is available on the [Council's LEZ evidence webpage](#).

A broad number of key stakeholders have been continually engaged from project inception to the final approval stage via meetings, workshops and/or online communication at relevant points, including all statutory consultees such as neighbouring authorities, and representatives of; the road haulage industry, the bus and coach industry, the taxi and private hire car industry, local businesses, and drivers.

SEPA has been a key part of the Council's LEZ Delivery Group and have attended regular meetings as part of that forum throughout the Scheme's development and decision-making processes. SEPA has also supported the Council at some of the Transport and Environment Committee meetings and other briefings to present the results of the modelling work packages.

Beyond the statutory consultees, the Council has also regularly met with Community Councils and other key representative bodies to discuss the Scheme at relevant stages, both during and outwith the statutory consultation periods.

The Council has also sought feedback on key stages of the scheme via its established Transport Forum, which includes representatives from public transport, active travel, taxi and private hire organisations.

In summer 2021, in response to specific concerns from the road and haulage industry the Council also established a Freight Forum, which comprised representatives from the industry, to discuss freight movement across the city and this included discussed and seeking views on LEZ.

Initial Consultations 2018-2019

In 2018 joint consultation on the LEZ, the City Mobility Plan and City Centre Transformation was undertaken to understand views and opinions on all three projects. The consultation, 'Connecting our City, Transforming our Places' sought views on options for both a city centre and an Extended Urban Area LEZ boundary.

'Connecting our City, Transforming our Places' became Edinburgh's largest public engagement of 2018 with more than 5,000 people contributed their views (either through the Council's online survey (4,192 returns), through participation in workshops, drop-in events or by groups and organisations submitting written responses).

Overall, 75% of survey respondents agreed that restricting access to the most polluting vehicles to the city centre and wider city is one way to control and improve air quality. There were mixed views on the potential grace period options put forward (1, 2, 3, 4, more than 4 years).

The 2018 consultation set the groundwork for more detailed assessment and modelling work in order to present more detailed options for more depth consultation and engagement in 2019.

Between May and July 2019, the Council publicly consulted on more specific, detailed proposals for an LEZ, including a City Centre boundary applying to all vehicle types and an Extended Urban Area boundary (formally named the 'city-wide' boundary) applying to commercial vehicles (buses, coaches, taxi and private hire, light and heavy goods vehicles).

The 2019 consultation set out proposals for when enforcement would start, normally after a grace period following the implementation date. It was proposed that the City Centre boundary would be introduced with a short one-year grace period for commercial vehicles, including buses and coaches, a four-year grace period for cars and an additional year for residents. It also proposed that the Extended Urban Area boundary would have a three-year grace period.

Overall, public support for action to improve air quality was noted during this early consultation. This was also demonstrated by consultations undertaken by Transport Scotland in 2017 and 2019/20.

Findings from the 2019 consultation found that cleaner air is important to all but there were mixed views as to the suitability of the LEZ and its specific aspects. General public and commercial groups agreed that they wanted clean air across Edinburgh, albeit with differing priorities for how to deliver this. Themes discussed included the cost of LEZ compliance; impact on life in Edinburgh (clean air benefits versus, cost of goods/services); and looking at a larger, city and regional scale initiative to tackle systemic issues (traffic flows, public transport, etc).

Analysis of feedback received from statutory consultees during this time, found broad support for the vehicle types to be included in the boundaries, and indicated that further refinement of the boundaries (particularly the City Centre boundary) should be considered. There were mixed views on the length of time proposed before enforcement should commence, when considering all stakeholders, for both boundaries considered at that time.

Statutory consultees generally showed support for a city centre boundary, including neighbouring local authorities and representatives of transport/logistics organisations. These groups indicated that an Extended Urban Area boundary may have potential negative impacts, for example, on regional traffic entering Edinburgh.

Furthermore, statutory consultees, including representatives of the bus and coach sector and representatives of other transport/logistics organisations, also generally showed support for a single grace period approach that included all vehicles and resident group, and a single grace period length, that would apply equally to all.

A draft Integrated Impact Assessment (IIA) was developed in 2019, to establish the wider impacts of the proposals, including on commercial fleet operators. The findings of this work, in addition to statutory consultee feedback received, highlighted the need to ensure operators are well informed to allow adequate time to make changes to commercial fleets and operations in advance of LEZ enforcement, in cognisance of national vehicle procurement challenges.

That draft IIA also noted that Small-Medium Enterprises (SMEs) represent over 90% of businesses located in Edinburgh indicating that they are likely to be heavily reliant on LGVs. SEPA's modelling considered the impact of LEZ options on LGVs throughout LEZ development.

Following consultation, the boundary and grace proposals were re-assessed to ensure alignment with objectives, and public/stakeholder opinion.

Thematic analysis of the consultation results indicated that city centre boundary options would lend themselves to clearer communication and engagement with the public and all other stakeholders and consultees. A dual-boundary option (i.e. City Centre and Extended Urban Area) was deemed to be significantly more complicated for all to understand, in terms of both design details and operation, as well as the concept of a dual-boundary approach. In appraising boundary options, the Extended Urban Area boundary was eliminated (see LEZ Appraisal section).

Further potential Scheme complexities were addressed by presenting a single grace period for all vehicles, including residents and non-residents, for a single LEZ boundary. This marked a significant change from the 2019 proposal, where different vehicle types had different grace periods (i.e. commercial-type vehicles ((HGVs, LGVs, buses and minibuses, coaches and taxis) were given one year and cars four years).

Further development of a preferred LEZ Scheme following the 2019 public consultation was paused after Scottish Government and the four Cities agreed to hold LEZ development in abeyance, due to the COVID-19 pandemic.

Statutory Consultation 2021

In June 2021, the Council approved a preferred Low Emission Zone Scheme which was subject to further consultation.

Consultation took place from 28 June to 20 September 2021 seeking views on a City Centre LEZ, to include all vehicle types, except motorcycles and mopeds and those subject to a national exemption outlined in the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021. The LEZ would be implemented on the 31 May 2022. Enforcement would commence on 1 June 2024, after a two-year grace period for all vehicles and groups. It was proposed that there would be no local exemptions to the Scheme.

Section 11 of the Act, in tandem with the Regulations, provides a list of the organisations that local authorities must consult with when making, amending or revoking an LEZ scheme. These organisations and groups were considered as statutory consultees and were approached directly and invited to comment during the 2021 consultation. Statutory consultees approached included the following:

- Scottish Environment Protection Agency (SEPA);
- Historic Environment Scotland (HES)
- Nature Scot (formerly Scottish Natural Heritage);
- Such persons as the authority considers represent the interests of;
 - The road haulage industry,
 - The bus and coach industry,
 - The taxi and private hire car industry,
 - Local businesses, and drivers, likely to be affected by the
 - proposal,
- Such other persons as the authority considers appropriate;
- Local authorities neighbouring the authority that is delivering the
- scheme,
- Regional Transport Partnerships;
- NHS Health Boards.

A broad number of stakeholders were continually engaged throughout LEZ development, building on previous consultation on Edinburgh's LEZ. Engagement included all the statutory consultees listed above. Furthermore, the LEZ Delivery Group is composed of members from the following stakeholder groups: SEPA, SESTran and NHS Lothian, which provided a regular forum for continuous engagement with LEZ development.

The consultation invited comment on key aspects of the LEZ Scheme, including the overall Scheme as proposed, the boundary, the grace period approach and length and local exemption approach. It also sought to gauge levels of awareness about support funding available.

A consultation document detailing the Scheme in full was provided to all statutory consultees and published on the Council's website. In addition to the statutory consultees, over 500 organisations (public, private, third sector, various sizes) were contacted and invited to take part in the consultation.

A public questionnaire received over 5,000 responses from individuals. Communications and engagement, including the opportunities to share feedback on the Scheme, were made via various formats including: virtual meetings, social media (~2 million 'impressions', i.e. the number of times posts have been viewed), bus shelter and large format digital displays on some key routes in the city, letter drops to all householders and businesses within the proposed LEZ (~19,000 properties), radio advertising (~1.2m population), emails to all active parking permit holders in Edinburgh (~25,000 drivers), all supported by information on the Council's LEZ webpages.

Following the period of statutory consultation, on the preferred Scheme in 2021, the Council undertook a full analysis exercise of the feedback from all stakeholders (statutory and non-statutory consultees). The Council has taken account of feedback from all stakeholders since the inception of the project, including from the earlier consultation exercise in 2019, when reaching the final Scheme design. Details of the extent and scope of the responses and representations is set out below.

Key stakeholders (including statutory consultees) presented a range of views on the scale of a future Scheme, but in general supported the principle of an LEZ. Statutory consultees generally showed support for Option 1 (city centre) boundary, including neighbouring local authorities and members of transport/logistics organisations. Broad support on the developing Scheme (Option 1) was given as part the Freight Forum. However, boundary changes could not be justified, in response to feedback received, as this was not in keeping with the Scheme's objectives and the evidence base.

Statutory consultees generally showed support for the two-year grace period, including the bus and coach sector and members of other transport/logistics organisations. Other grace period changes could not be justified, in response to feedback received, as this was not in keeping with the Scheme's objectives and the evidence base.

Overall, Scheme impacts are considered to be proportionate in respect to the benefits.

Significant changes to the final design of the Scheme following analysis of the consultation could not be justified, however thematic analysis suggests that concerns were mostly centred on displacement (traffic and air quality) impacts, the need for local exemptions and that the LEZ may disproportionately impact on low-income households and microbusinesses. In response to consultation and engagement with key stakeholders, the Council acted on feedback received, such as the detailing and next steps around developing the Network Management Strategy in collaboration with key stakeholders, and in terms agreeing an approach to determining local exemptions.

Statutory Notice Period

The Council publicised the notice for the making of the LEZ Scheme after the formal public consultation and before submitting the LEZ proposal to the Scottish Ministers for ministerial approval.

The Council followed the process set out in Regulation 3 of the Low Emission Zone (Scotland) Regulations 2021 which covers the requirements for the publication of the proposals for the LEZ scheme. Part of this process includes a requirement to provide certain information to statutory consultees. The statutory consultees are identified in section 11 of the Transport (Scotland) Act 2019. Regulation 3(c) of the 2021 Regulations provides that after completing

the consultation and before submitting the proposal to make the scheme to the Scottish Ministers for approval, the local authority must send a copy of the statement referred to in section 10(2) of the 2019 Act to the persons consulted under section 11 of the 2019 Act. The statement referred to is a statement setting out the details of the consultation.

This statement confirms how the Council undertook that publication process in respect of the statutory consultees.

Publication process

A Statutory Notice Period advertised the Scheme Proposal for a period of 29-days, from 1 February to 1 March, in exceedance of the 28-day minimum requirement as outlined in the [Transport \(Scotland\) Act 2019](#) ('the Act') and [The Low Emission Zone \(Scotland\) Regulations 2021](#) and [The Low Emission Zone \(Emission Standards, Exemptions and Penalty Charges\) \(Scotland\) Regulations 2021](#) ('the Regulations').

A notification email was issued to all statutory consultees on 31 January, a day in advance of the commencement of the statutory period.

The notification email confirmed that if consultees wished to raise objections to the proposed Scheme, they must be made in writing, stating the grounds of objection, and submitted:

- By email to low.emission.zone@edinburgh.gov.uk; or
- By post to: Low Emission Zone, the City of Edinburgh Council, Waverley Court G3, 4 East Market Street, Edinburgh, EH8 8BG

The following information was attached to the notification email:

- A copy of the Proposal to Make a Scheme which included the content required under section 14 of the 2019 Act,
- a copy of a statement by the local authority setting out the reasons why the proposed scheme should be made,
- notice of the time period for representations to be made and where representations should be sent to; and
- the Consultation Statement (as referred to in section 10(2) of the 2019 Act) that set out the details of the consultation that was undertaken in Summer 2021 and how account was taken of representations received during that consultation.

In addition, the following information was also sent to statutory consultees as part of the email notification:

- A copy of the on-street bill publicising the Scheme; and
- The Consultation Document, used to support the public consultation process (May 2021)

The Council also included a weblink to further reports and supporting evidence as noted in Table 6, on the Council's website www.edinburgh.gov.uk/lez within the notification email.

Considering the impact of the pandemic on the attendance of personnel at offices, it was determined appropriate that notifying statutory consultees by email was sufficient for the purpose of the notification process.

The following organisations are deemed statutory consultees for the purpose of making an LEZ in Edinburgh. The appropriate chief officer was contacted in each organisation, as well as local contacts, where possible. See table 5a, below.

Requirement in Section 11 of the Transport (Scotland) Act 2019	Organisation Notified
Named organisations; SEPA, SNH (Nature Scot), HES	SEPA SNH (Nature Scot) HES
<i>Such persons as the authority considers represent the interests of (likely to be affected by the proposal):</i>	
Road Haulage Industry	Logistics UK Road Hauliers Association ECOstars
Bus and Coach Industry	TFE Lothian Buses First Group Confederation of Passenger Transport
Taxi and Private Hire Car Industry	City Cabs Private Hire Cars Scottish Taxi Federation
	Capital Cars Edinburgh City Private Hire Ltd Uber
Local Businesses	Chamber of Commerce Federation of Small Businesses Essential Edinburgh
Drivers	Institute of Advanced Motorists RAC
<i>Such other persons as the authority considers appropriate:</i>	
Neighbouring local authorities	Borders Council Clackmannanshire Council East Lothian Council Falkirk Council Fife Council Midlothian Council West Lothian Council
Regional transport partnership	SEStran
Health board	NHS Lothian Health Protection Scotland NHS Lothian (Transport)

Table 5a Consultation Notification

Over 600 on street bills were affixed to street ends in prominent positions, across all affected street within the Scheme Proposal boundary. It was noted that a significant number of bills were vandalised and/or removed during the Period, which were duly noted and replaced at the half-way point of the Period by contractors. Notice advertisements were published in two local newspapers: The Scotsman and Edinburgh Evening News during the Period. Physical

copies of documentation were also made available in the City Chambers during the Period.

During the Period, a summary of the objections process and all evidence relating to development of the Scheme Proposal was made available on the Council's webpages, including the evidence relating to the Council's Proposal to Make a Low Emission Zone Scheme - See Table 6.

Table 6. LEZ Statutory Notice - Evidence

Evidence Item(s)	Publication Date
Statutory Notice	January 2022
Statement of Reasons	
Consultation Statement	
On-Street Bill	
Consultation Document	May 2021
SEPA Air Quality/Carbon Modelling Reports	2018-2021
Traffic Modelling Reports	2019-2021
Consultation Analyses	2019-2021
Impact Assessments	2021
Options Appraisal Report	May 2021
Transport and Environment Committee Reports	2018-2022

During the Period, Transport Scotland's communications campaign widely advertised the national LEZ campaign in Edinburgh and included the following: TV advertisement on STV, digital displays, advertising on Lothian Buses etc.

A total of 26 objections and one note of support was received during the Statutory Notice Period. Overall, objections generally focused on the following themes; size and location of the boundary, impacts of traffic displacement and the potential financial impacts for individuals and businesses to ensure that they could comply with the Scheme. Some objections also included concerns around the evidence base which underpins the Scheme, the consultation and engagement process, exemptions, the need for an LEZ at all, and the cost of its operation.

In response to all representations received, the Council has refined some of the intended operational details for the Scheme, including around Network Management Strategy (NMS) and establishment of an LEZ Local Exemptions Advisory Panel (LEZ-LEAP).

Grace Period(s)

A grace period of two years will begin on the date the LEZ is introduced and will apply to all vehicles (residents and non-residents). This will allow those with non-compliant vehicles time to adjust, it will also allow time for any transport infrastructure changes or road construction considerations that are required for the LEZ to function efficiently.

Grace Period Approach

Overall, feedback from consultation both from statutory consultees, other key stakeholders and the public generally pointed to applying a grace period which was clear, easy to understand and fair.

Cognisant of feedback received during consultation, statutory consultees and many other key stakeholders generally recognised overall that a single grace period, for all, was fair. A single grace period treats all groups and vehicle types the same, regardless of residency status or type of operation (i.e. personal, business etc.).

The findings of the IIA, local awareness and understanding of LEZ operation, and the need for an equitable post-COVID-19 recovery indicated that a single grace period for all was deemed most appropriate.

The Council's decision for a single grace period also took cognisance of national measures to support those most affected by LEZs, including national exemptions in place and support funds available for eligible low-income households and microbusinesses.

Grace Period Length

Analysis of the impacts of delays to Scotland's national LEZ timeline indicated that if Edinburgh's LEZ was enforced later than 2024, improvements in air quality and the wider benefits of the LEZ would not be achieved quickly enough, whilst being cognisant of other social and economic impacts i.e. finding a balance between air quality improvements and economic recovery from COVID-19. Hence a single grace period for all, that is two-years in length, was deemed appropriate.

The [Options Appraisal](#) and [Integrated Impact Assessment \(pp.88-108\)](#) supported a proportionate approach to the grace period length. The primary aim was to achieve a balance between achieving the necessary improvements in air quality and public health alongside the need to mitigate against potential negative economic impacts and support recovery from COVID-19. Legislation supporting LEZs requires a minimum one-year grace period.

The Options Appraisal identified that a further one-year period would be necessary to give individuals and businesses sufficient time to prepare, so that any potential negative economic impacts could be mitigated and recovery from COVID-19 could be properly supported. To understand the full impacts of the Scheme on individuals and groups, an Integrated Impact Assessment was completed. Its findings highlight the need to ensure support for groups that are most affected, and that time is given to ensure stakeholders are well informed and have time to prepare, prior to the enforcement of the LEZ. For example, the Council has considered the impact of LEZ on SMEs, which predominate in Edinburgh and are disproportionately reliant on LGVs. SEPA's analysis of traffic compliance rates for LGVs indicated that compliance has remained relatively low in Edinburgh and has continued to lag behind other vehicle categories, in relation to national trends. Cognisant of LGV compliance rates and the COVID-19 economic recovery, the Council determined a two-year grace period to be proportionate.

Further extension of this grace period to beyond two years was considered too long given the impetus to reduce harmful emissions and deliver public health benefits as quickly as possible.

A two-year grace period aligns with delivery timelines for network changes required by the LEZ Network Management Strategy (NMS). The NMS is designed to mitigate potential short-term traffic/air quality impacts related to the implementation of the Scheme.

The Council's decision for a two-year grace period also took cognisance of national measures to support those most affected by LEZs, and sought to offer a longer period for further support funding to be allocated to eligible applicants located within 20km of Edinburgh, to mitigate impacts on identified individuals and businesses.

Wider Considerations

Integrated Impact Assessments

An Integrated Impact Assessment (IIA) helped inform the final design of Edinburgh's LEZ by presenting potential impacts arising from its introduction. As set out in this NLEF Report, the LEZ will restrict non-compliant vehicles from entering a defined area in the city and the IIA considered a range of consequential impacts including access, health, and financial impacts. The IIA utilised the NHS Lothian Integrated Impact Assessment guidance as an effective mechanism for meeting requirements of the NLEF and the Equality Act 2010 (Specific Duties) (Scotland) 2014. The IIA approach is consistent with Transport Scotland's approach to the IIA for the LEZ Regulations with the approach tailored to reflect relevant supporting guidance for Edinburgh's LEZ.

An update to the draft 2019 IIA was published in [March 2022 \(pp.88-108\)](#) and copy of [October 2021](#) IIA is available on the [Council's LEZ evidence webpage](#).

Through the IIA, the likely impacts of the LEZ introduction on the following groups were assessed:

- People with protected characteristics (e.g. age, gender, disability, ethnicity, religion);
- Those vulnerable to falling into poverty (e.g. unemployed, single parents, homeless people, carers and vulnerable families)
- Geographical communities (e.g. urban, rural, and business communities) The impacts on each group were organised by the key IIA themes:

The impacts on each group were organised by the key IIA themes:

- Equalities and Human Rights
- Environmental
- Economic

The IIA concluded that the LEZ has the potential to cause a range of positive and negative impacts, from improving health of society to potentially reducing access to the city centre for those who rely on private vehicle transport. The most significant impact of the LEZ will be the improvement in air quality and the resulting health benefits to residents, visitors and workers. The LEZ also has a potential positive health impact through encouraging the use of active travel and public transport for certain trips and changing existing travel behaviours.

Given the focus of the IIA to look at how protected groups are potentially differentially affected, there are instances where the LEZ could disproportionately affect some groups in society. For example, those who have a diminished ability to upgrade to a compliant vehicle due to low income, including people on benefits, single parents, or disabled people. Those on lower incomes may experience reduced access to locations and in turn the goods, services, or employment opportunities available to them. Community transport providers rely on cars and minibuses that may be subject to an LEZ, therefore the services they provide to a range of protected groups (such as youth groups and those receiving care) may be affected.

The assessment concluded that, despite the health benefits, protected members of society can be negatively impacted by the LEZ but that these impacts can be removed or mitigated through considerate decision making at national and local level. For example, Transport Scotland's LEZ Mobility Fund, retrofitting schemes and exemptions outlined in the Regulations

all look to reduce negative impacts of LEZs. The proposed 2-year grace period for the Edinburgh LEZ will also mitigate the impacts, allowing additional time for residents and businesses to comply with LEZ requirements.

Strategic Environmental Assessment

A Strategic Environmental Assessment screening process highlighted the need for the LEZ to be assessed as a part of the wider Edinburgh City Centre Transformation programme and City Mobility Plan work. The SEA work concluded that the cumulative impacts of introducing the LEZ along with other policies and strategies, such as the City Mobility Plan and Edinburgh City Centre Transformation, would generally be positive. An area of concern highlighted in the SEA was the potential for negative impacts on air quality as a result of traffic displacement

In Scotland, during the main COVID-19 pandemic lockdown period in 2020, air pollution (NO₂) levels declined. Transport Scotland commissioned a study to assess COVID-19 impact on plausible futures scenarios (with varying traffic demand and vehicle compliance levels) against the NMF model assessments for the four Scottish Cities. The assessment work for Edinburgh found proposals were robust to variations in network conditions that may occur in a post-COVID-19 world. The study also concluded LEZs are still required to improve air quality and protect public health in the City Centre.

A copy of the City Mobility Plan [SEA](#), that includes LEZ, is available on the [Council's LEZ evidence webpage](#)

Costs / Funding

LEZ Grant Funding

The Council has applied to Transport Scotland for grant support towards the development of a Low Emission Zone since 2018. The Council will continue to apply for future grant support from Transport Scotland.

Table 7. Transport Scotland Grant Award and Claim - Summary

<i>LEZ Grant Award</i>		
Financial Year	Revenue	Capital
2018/19	£111,800.00	N/A
2019/20	£195,000.00	
2020/21	£120,000.00	
2021/22	£140,000.00	£900,000.00*
* Capital grant award is a contribution and may be claimed beyond FY 2021/22		

<i>LEZ Grant Claim</i>		
Financial Year	Revenue	Capital
2018/19	£36,522.00	N/A
2019/20	£103,044.08	
2020/21	£28,688.50	
2021/22	£118,867.91**	£0.00*
* Capital grant award is a contribution and may be claimed beyond FY 2021/22		
**£14,247.50 of which accrued into FY 2022/23		

Future grant applications may be made to support the progress of key LEZ development activities, according to grant eligibility criteria. Table 8 itemises LEZ development activities by cost type, irrespective of funding available.

Table 8. LEZ development activities, by type of costs

Revenue	Capital
<ul style="list-style-type: none"> • Air quality/traffic modelling • Communications and engagement • Impact assessments • Monitoring and evaluation • Project management • Legal 	<ul style="list-style-type: none"> • Enforcement cameras – fixed and mobile • Enforcement camera installation • Back-office system • Design/contract management • Signage • Network Management Strategy

Revenue Impact

Future funding for the ongoing revenue costs for operating the LEZ Scheme is the subject of ongoing discussion with the Scottish Government, through the LEZ Leadership Group. The estimated revenue cost is £400,000 per annum once enforcement commences in 2024/25. The Scottish Government is also considering unfunded capital costs in the range of £570,000 to construct road network changes that will facilitate traffic movements around the boundary.

The financial implications of the LEZ will be published as part of the annual LEZ progress report and in annual accounts of the Council, according to the financial year and 2021 Regulations.

The Council is progressing detailed revenue modelling, in partnership with Transport Scotland and the four cities implementing LEZs. Key assumptions will be agreed across the cities and the Council will test scenarios to project revenue implications of potential behaviour change impacts of the Scheme.

LEZ Support Funds

In [February 2020](#), Committee noted that the Council and its regional partners received funds from Transport Scotland through the LEZ Public Transport Provision Fund (PTP) to promote modal shift and support the Scheme's objectives. In total, approximately £3.7m of PTP funds were claimed across South East of Scotland Transport Partnership (SEStran) region by the Council and regional local authorities to develop: a mobility hub (Brunton Hall) including EV chargers, Park and Rides, bus shelters, bus prioritisation measures and new bus lane enforcement cameras, among other measures.

In addition, Scottish Government has provided over £1.5m in [LEZ Support Funds](#) to promote modal shift and reduce emissions, for over 450 microbusinesses/low-income households located within 20km of the Scheme and to retrofit taxis.

Risks and Uncertainty

A Risk Register has been continually updated throughout LEZ Scheme development to inform decision making. Table 8 details potential risks and uncertainties identified relating to the Proposed Scheme, open as at March 2022. Mitigating actions for each open risk have been identified in table 8.

Table 9. Risk register, as at March 2022

Ref	Risk	Impact	Likelihood	Score	Mitigation	Impact	Likelihood	Score
1.0	Scheme is not delivered by May 2022, due to political decision-making timelines	5	4	20	Final Submission of the Scheme and objections report from Statutory Notice Period is presented to Committee, alongside all supporting evidence.	5	3	15
1.1	Insufficient funds to cover LEZ revenue/maintenance costs	5	4	20	Ongoing discussion with Scottish Government through LEZ Leadership Group	5	3	15
1.2	TRO/RSOs required at as part of Network Management Strategy (NMS) delay LEZ implementation, due to hearing	5	4	20	Scheme delivery programme updated to account for TRO/RSO lead-ins.	5	3	15
1.3	Scheme is subject to Examination	5	4	20	Robust case for change has been established via the NLEF process and LEZ developed has been informed by public and stakeholder engagement, consultation and statutory notice period. Objections received have all been responded to and/or addressed.	5	3	15
1.4	Public do not support or understand Scheme operational details, objectives and impact	5	4	20	Deliver communications campaign throughout grace period, informed by behaviour change study. Baseline for monitoring/evaluating LEZ success and identify public views, knowledge and potential misunderstandings.	4	3	12
1.5	Scottish Ministers amend or reject the Scheme, requiring Committee to reconsider options	5	4	20	Council engaging continually with Transport Scotland during LEZ development. Development processes followed according to LEZ Regulations and Guidance.	4	3	12
1.6	Council is required to redirect funds from other projects, to deliver the LEZ Network Management Strategy (NMS)	4	5	20	Raised with Scottish Ministers, via LEZ Leadership Group. The Council will apply for LEZ Grant Funding in 2022/23 for contributions towards NMS.	4	3	12
1.7	Impact of Scheme on individuals	4	4	16	Integrated Impact Assessment (IIA) outlined potential impacted	4	3	12

					<p>individuals' groups, which informed LEZ appraisal and development.</p> <p>LEZ Support Funds, provided by Scottish Government, are available to eligible applicants to encourage compliance and promote modal shift.</p> <p>Council will promote the Support Funds via media channels and through communications campaigns and will assess awareness, via monitoring/evaluation.</p> <p>LEZ national exemptions are in place for identified impacted groups, including blue badge holders.</p> <p>Two year grace period provided to allow more time to adapt and prepare for LEZ.</p>			
1.8	Impact of Scheme on businesses	4	4	16	As above.	4	3	12
1.9	Impact of Scheme on bus/coach operators	4	4	16	<p>LEZ retrofit funds, provided by Scottish Government, for eligible vehicles to become compliant</p> <p>Council will continue to promote the Retrofit Funds via media channels and engagement with stakeholders.</p>	4	3	12
1.10	Impact of Scheme on taxi/private hire operators	4	4	16	As above	4	3	12
1.11	Potential traffic displacement around boundary	4	4	16	<p>Scheme Network Management Strategy (NMS) provides identified measures to mitigate modelled traffic impacts, including junction changes and signage. Only with funding secured, can the identified network mitigations be delivered.</p> <p>Monitoring/evaluation at identified sensitive locations, in partnership with key stakeholders during grace period and from enforcement. Anticipate undertaking monitoring/evaluation of behaviour change in response to LEZ. Discretionary objectives of the scheme agreed to ensure alignment of the Scheme with the Council's wider transport and placemaking policies</p>	4	3	12
1.12	TRO/RSOs required at as part of Network Management Strategy	4	4	16	Scheme delivery programme updated to account for TRO/RSO lead-ins	4	3	12

	(NMS) delay LEZ implementation.							
1.13	Enforcement back-office system is subject to a cyberattack	4	4	16	Follow all Council IT security policies and ensure systems are procured to highest standards available.	4	3	12
1.14	Data from enforcement system is not handled in accordance with correct procedures	4	3	12	Compliance with legislation, guidance and internal procedures. All data to be stored and (where required) transferred in a secure manner. All data and data management processes shall be compliant with the requirements of GDPR, the Data Protection Act 2018 and will be subject to Data Protection Impact Assessment(s). Any staff handling data to be trained in data protection	4	2	8
1.15	Enforcement system - procurement not complete on time/to specification	4	3	12	Procurement via identified routes to market and in-line with other projects' procurement processes (Smart Cities). Advanced implementation and testing to be completed to ensure robust system in place by 1 June 2024.	4	2	8
1.16	Enforcement system – operation	4	3	12	Flexibility in the enforcement strategy allows effective deterrent that can adapt to changes in behaviour and progress towards objectives	4	2	8
1.17	Enforcement system - DVLA and Transport Scotland agreements, exemptions systems etc. not in place by June 2024	4	3	12	Systems are required to be in place by summer 2023 in time for Glasgow's LEZ enforcement. Risk shared with Transport Scotland	4	2	8
1.18	Insufficient staff resource to progress key project deliverables	4	3	12	Project lead identified in 2021/22. To seek consultancy support (and funding) or internal role re-allocations, when appropriate.	4	2	8
1.19	Public transport operators react to LEZ by reducing services or increasing costs	4	3	12	LEZ retrofit funds, provided by Scottish Government, for eligible vehicles to become compliant. Lothian buses to be 100% compliant by end of 2022.	4	2	8
1.20	Macro-economic and COVID impacts, in relation to LEZ	4	3	12	Options appraisal considered proportionality of environmental benefits verses socio-economic disbenefits. A city centre boundary with a 2-year grace period was identified as optimal option to give time for adaptation to the Scheme.	4	1	4
1.21	Scheme does not achieve objectives, including for air quality	5	2	10	Monitoring/evaluation to continually assess against Scheme objectives.. Adjust Scheme as necessary to achieve objectives	5	1	5

Mitigation

See Risks and Uncertainty section, above

Monitoring and Reporting

Monitoring and reporting (monitoring and evaluation) on the performance and effectiveness of the LEZ will take place in accordance with the Transport (Scotland) Act 2019 and associated LEZ Guidance. Part 5 (1) of the Low Emission Zones (Scotland) Regulations 2021 contains provisions requiring that a local authority operating a scheme must for the duration of the scheme (a) keep proper accounts, as required by proper accounting practices, for that scheme showing the costs of (as the case may be) proposing, making and operating the scheme and how the gross and net revenue of the scheme is calculated, (b) prepare, in respect of each financial year, a statement of account based on the accounts referred to in paragraph (1)(a) and, if applicable, paragraph (2) in such form as is required by proper accounting practices, and (c) publish the statement of account, in such manner as is required by proper accounting practices, in the annual accounts of the authority for the financial year, with a copy of this statement of account required to be included with the annual report required under Section 29 of the Transport (Scotland) Act 2019.

In accordance with the Act, the Council will prepare an annual report on the operation and effectiveness of the LEZ, share this with Ministers and publish on website. The reporting data will be collated from June to June. This will be reported annually in Autumn each year to allow time for analysis, of all data collected, including financial information. The report will be reviewed by officers according to the LEZ governance structures and presented to the relevant Committee before sharing with Scottish Ministers.

In accordance with the Guidance this will cover, as a minimum:

- The scheme size, boundary location, vehicle scope, date of scheme introduction and grace period start/end dates;
- A summary of the operation and effectiveness of the scheme including an assessment of: the costs of proposing, making and operating the scheme; the number and details of penalties issued; the number of appeals received and a summary of their outcomes; gross and net revenue gathered by the authority from the operation of the scheme; details of how the revenue has been used to facilitate the achievement of the scheme's mandatory and discretionary objectives; and
- Any modifications to the scheme in the past 12 months.

In accordance with the Act and The Low Emission Zone (Scotland) Regulations 2021, the Council will keep and publish annual accounts in connection with the LEZ for the duration of a scheme's operation, with a 'statement of accounts' published in the Council's annual accounts. This will identify:

- The costs of proposing, making and operating the scheme and the calculation method and actual figures related to gross and net revenue and expenditure of the scheme, to include all of the costs incurred for, or in connection with, planning, procuring, implementing, maintaining, repairing, improving, administering, managing, enforcing and promoting the scheme;
- Any grant provisions provided by Scottish Ministers in relation to the LEZ scheme.

The performance of the LEZ in reducing levels of air pollution, alongside concurrent interventions, will be monitored and reported via the Local Air Quality Management (LAQM) process and published within Edinburgh's Air Quality Annual Progress Reports. These will continue to detail pollution levels recorded at automatic monitoring sites and diffusion tube locations. It is noted though that the APR reports on monitoring taken over the 'calendar year', and that trends may only be evident over a number of years rather than year on year.

Conclusion

The Council has identified a preferred LEZ boundary for Edinburgh (Figure 1) following a robust option appraisal process in accordance with the Cleaner Air for Scotland Strategy and the National Low Emission (NLEF) and supported by the detailed traffic and air quality modelling of the National Modelling Framework (NMF), public and stakeholder engagement, relevant impact assessments, and alternative futures scenario planning.

The Council intends to formally introduce the LEZ on 31 May 2022. A 2-year grace period will apply from this date to both residents and non-residents of the LEZ, meaning that enforcement will take place from 1 June 2024.

The LEZ will operate for 365 days a year, 24 hours a day. In accordance with the legislation, the LEZ may be suspended for the duration of events of local or national significance. Although none are anticipated at present, these will be determined on a case by case basis in consultation with Scottish Ministers as they arise. The LEZ may also be suspended in emergency situations, such as when an incident on the wider road network requires vehicles to be temporarily diverted through the LEZ, but only where vehicles follow prescribed diversionary routes.

The LEZ will apply to all vehicle types specified in the Regulations and identified in the Introduction to this submission. Vehicles will be permitted access to the LEZ on the basis of their exhaust emissions standard, in accordance with the mandatory nationally consistent emission standards for Scottish LEZs identified in the Regulations.

Edinburgh's LEZ will not apply to motorcycles and mopeds given the limited contribution these make to NO_x emissions.

Section 17 of the Act states that local authorities may grant and renew 'time-limited exemptions', in respect of a vehicle or type of vehicle for the purpose of section 6(1)(b), by reference to the vehicle's use. The maximum period for which a 'time-limited exemption' may be granted is a period of 1-year. However, to encourage compliance and to meet Scheme objectives, exemptions will only be granted in exceptional circumstances and would be considered on a case-by-case basis. It is not possible at this stage to foresee the full range of such occasions, however a mechanism will be put in place by the Council prior to the end of the grace period for ad-hoc exemptions of this nature, although the Council expects these to be very rare circumstances.

Should the Council believe a vehicle is in contravention of the LEZ, it will serve a Penalty Charge Notice (PCN) on the registered keeper, in accordance with the Regulations. Enforcement will commence following the end of the two-year grace period and will be via Automatic Number Plate Recognition (ANPR) cameras. Penalty charges will be issued in accordance with the Regulations, described in the Introduction.