

Cleaner Air for Scotland 2

Towards a Better Place for Everyone

2021/22 Progress Report

June 2022

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Ministerial Foreword

This is the first annual progress report for Scotland's new air quality strategy 'Cleaner Air for Scotland 2 – Towards a Better Place for Everyone' which was published in the summer of 2021. The past year has seen the Scottish Government, working closely with our partners, beginning to build on the achievements of the previous Cleaner Air for Scotland strategy and setting the course for further air quality improvements over the next five years.

Undoubtedly the most significant milestone since Cleaner Air for Scotland 2 was published has been the introduction of Low Emission Zones in Aberdeen, Dundee and Edinburgh, together with further development of Scotland's first Low Emission Zone in Glasgow, which was originally established in 2018. Evidence from elsewhere shows that Zones such as these can have widespread and long lasting, positive impacts on local air quality. We can therefore expect to see real benefits for residents and visitors in Scotland's four biggest cities.

Also over the last year we have also put in place a robust governance structure to oversee delivery of the Cleaner Air for Scotland 2 actions. Many organisations across the public, private and third sectors have enthusiastically engaged with us in this process and I thank them for that. I am encouraged by this clear demonstration of commitment to what we are aiming to achieve, and I look forward to these partnerships continuing to strengthen and flourish as we strive to fulfill our ambition for Scotland to have the cleanest air in Europe.

Màiri McAllan MSP
Minister for Environment and Land Reform

Introduction and background

[Cleaner Air for Scotland – The Road to a Healthier Future](#), published in 2015, was Scotland’s first air quality strategy separate from the rest of the UK. It set out a series of 40 actions designed to further improve air quality, 36 of which were fully completed within the lifetime of the strategy. In 2019 an [independent review](#) of Cleaner Air for Scotland was undertaken, with the aim of reviewing progress to date and identifying priorities for additional focus over the coming years.

The conclusions and recommendations arising from the review were used to inform the development of an updated and revised quality strategy which was published in July 2021 as [Cleaner Air for Scotland 2 – Towards a Better Place for Everyone](#). This new strategy sets out the air quality policy framework in Scotland for the period to 2026, including a series of new actions grouped across ten policy areas (plus the four uncompleted actions from Cleaner Air for Scotland).

The policy areas are:

1. Health
2. Integrated Policy
3. Placemaking
4. Data
5. Public Engagement and Behaviour Change
6. Industrial Emissions Regulation
7. Tackling Non-Transport Emissions Sources
8. Transport
9. Governance, Accountability and Delivery
10. Further Progress Review

A [delivery plan](#) was published to accompany the new strategy, which groups the actions by priority – short term (completion by end 2022), medium term (completion by end 2024) and long term (completion by end 2026). It also highlights the organisations responsible for implementing each action, together with timelines and key milestones.

This first annual report summarises progress with implementation of actions since Cleaner Air for Scotland 2 was published. Only actions which have been progressed in that time period (mainly short term, but also some medium and long term where work on these has already commenced) are included here, and readers should refer to the delivery plan for the full list of actions.

All of the actions covered in this report are on track against the milestones set out in the delivery plan, therefore detailed information on status is not provided here.

Summary of progress with Cleaner Air for Scotland 2 actions

1. Health

All of the health actions in Cleaner Air for Scotland 2 have been classed as long term. A health working group has been established to support delivery of these actions. The group met in May 2022 to begin substantive discussions on the delivery of actions (see 'Governance, Accountability and Delivery' below for further details). The meeting was well attended by stakeholders and subsequent meetings will be held on a quarterly basis. Although health actions have been classified as long term for delivery, work towards delivery, supported by the expertise of the health working group, has begun.

2. Integrated Policy

Action: The Scottish Government will ensure that actions in the Scottish Government's Climate Change Plan deliver co-benefits for air quality.

Progress: The Scottish Government's 2020 [Climate Change Plan update](#) has a number of actions which will deliver co-benefits for air quality, such as a commitment to reduce car kilometres by 20% by 2030, working with public bodies to lead the way by phasing out the need for new petrol and diesel light commercial vehicles by 2025 and investing £30 million to establish the fourth largest electric vehicle (EV) charging network in the UK .

Action: The Scottish Government with support from SEPA will ensure that the National Nitrogen Balance Sheet for Scotland reflects the contributions to relevant air quality pollutants from all sectors of the economy. Also, ensure that the new evidence base from the balance sheet is used to inform future policy making around air quality and its alignment with other strategic frameworks. Once established the Balance Sheet will be reviewed on a regular basis.

Progress: [The Climate Change \(Nitrogen Balance Sheet\) \(Scotland\) Regulations 2022](#) came into force on 11 March. The baseline version of the Balance Sheet [dataset](#) was published at the same time.

3. Placemaking

Action: The Scottish Government will ensure that National Planning Framework 4 has regard to Cleaner Air for Scotland 2 in its preparation, in accordance with the Planning (Scotland) Act 2019.

Progress: The NPF4 [Position Statement](#) confirms that NPF4 will help to deliver the new air quality strategy, including through new policies to improve air quality alongside reducing climate change emissions. It recognises the contribution of natural infrastructure to clean air and the need to continue to safeguard air quality in meeting demand for primary materials. It highlighted the potential for further development of the six qualities of successful places to reflect broader priorities including clean air. It also indicates that future policies will ensure that the National

Transport Strategy 2 Sustainable Travel and Investment Hierarchies are embedded into development plans and proposals. The draft NPF4 was laid in the Scottish Parliament in November 2021 and a public consultation on the draft closed on 31 March 2022.

Action: The Scottish Government with support from SEPA will promote the aim of the UK Integrating Tools for Air Pollution Assessment (ITAPA) project in developing an online air pollution risk assessment tool for air pollution effects on ecosystems.

Progress: SEPA is developing the scope for taking forward the air quality component of the AERIUS tool (which is based on the original [Dutch AERIUS](#) integrated risk assessment system for decision making) and have had preliminary discussions with the Scottish Government and JNCC, who are managing the UK AERIUS contract.

Action: The Scottish Government with support from SEPA will implement the National Modelling Framework regional air quality model to assess the effects of land use development on local air quality.

Progress: SEPA is continuing to work with the UK AERIUS Working Group to develop the new UK-based air pollution modelling assessment tool. SEPA is looking to incorporate the regional air quality model assessment tool within the AERIUS platform. SEPA has already digitised the Scottish road network, to include detail information required for the air quality model. This network has been incorporated within the current AERIUS maps.

4. Data

Action: The Scottish Government with support from SEPA will commission a review of air quality data collection and reporting in Scotland. The review will identify any notable gaps in data provision, with recommendations on how to fill these. The review will also provide recommendations on how current air quality data and methodologies can be more effectively integrated with other datasets, particularly those relating to transport and human health.

Progress: SEPA has compiled a spreadsheet of local authority monitoring locations for local air quality management purposes. This includes automatic and diffusion tube monitoring locations and whether the site has recorded exceedances of the air quality objectives within the last five years. This will help inform the review and identify significant gaps in monitoring data.

Action: Transport Scotland with support from SEPA will establish a comprehensive network of cutting-edge remote sensing air quality monitors on local and trunk roads in the early 2020s.

Progress: Remote sensing was undertaken in Edinburgh and Glasgow in October/November 2021 using the EDAR (Emissions Detection and Reporting) system to provide accurate data on exhaust emissions in real world driving conditions. Over 200,000 records were collected and currently under analysis.

Action: The Scottish Government with support from Transport Scotland and SEPA will provide guidance to local authorities on how best to always commission traffic data collection in a way that supports local air quality objectives.

Action: Transport Scotland, SEPA and the Scottish Government will work together to develop a central data storage for traffic data to support the development and use of SEPA's National Modelling Framework (NMF) (and UK AERIUS).

Progress (covering both above actions): SEPA is currently working with Transport Scotland and Improvement Services to develop a central location for local authority traffic data, and the future standardisation for collecting traffic information.

5. Public Engagement and Behaviour Change

Action: The Scottish Government will commission a baseline survey of current awareness amongst the Scottish public of air pollution health effects and source contributors.

Progress: An invitation to tender for the survey was published in April 2022. Environmental Protection Scotland will commission a survey of 500 people across Scotland for Clean Air Day 2022 (16 June) around attitudes to air quality in general and awareness of Clean Air Day in particular.

Action: The Scottish Government will continue to support Clean Air Day and other activities promoting raising awareness of air pollution.

Progress: Funding has been provided to Environmental Protection Scotland and Global Action Plan (an environmental charity leading on Clean Air Day at UK level) to implement Clean Air Day 2022 in Scotland.

6. Industrial Emissions Regulation

Action: The Scottish Government will review the role of incineration in Scotland's waste hierarchy.

Progress: A [report](#) of the independent review was published in May 2022, including 12 policy recommendations.

Action: Transport Scotland will develop an emission impact and evidence base on Transport Refrigeration Unit emissions.

Progress: A [report](#) was published in September 2021 setting out the results from research commissioned by Transport Scotland on emissions from auxiliary diesel engines used on some Transport Refrigerated Units.

7. Tackling Non-Transport Emissions Sources

Action: The Scottish Government will commission work to provide further evidence on the proportion of PM emissions and other key pollutants attributable to domestic burning in Scotland, together with geographic and demographic distribution of domestic burning.

Progress: A research project led by Scotland's Rural College (SRUC) commenced in April 2022 and scheduled to run until 2026, which will address this evidence need. The research is focusing on urban air pollution issues, particularly domestic combustion, its effects on particulate matter and the consequences for human health.

Action: The Scottish Government will take forward, working with businesses that may be affected and other interested parties, potential measures to control the supply of the most polluting domestic fuels – including a ban on house coal, restricting the sulphur content of smokeless fuels to 2%, prohibiting the sale of certain types of wet wood and introduction of a minimum renewables content for manufactured smokeless fuels. In taking forward this work, we are mindful that any new measures would require to be implemented over a period of time, such as a transitional period during which businesses could adapt to the new requirements without disproportionate costs.

Progress: The commissioning process for a Business and Regulatory Impact Assessment to inform this action commenced in May 2022.

Action: The Scottish Government will support investigation into the method of assessing risk of significant harmful ecological effects from atmospheric nitrogen (nitrogen deposition and elevated concentrations of ammonia and NOx), comparing critical loads/levels with dose-response or other options.

Progress: A five year research project led by the James Hutton Institute commenced in April 2022, consisting of two work packages. The first of these has the overarching aim of understanding the impacts on nitrogen deposition on sensitive natural ecosystems in Scotland in the context of climate change and other drivers.

Action: The Scottish Government will assess the potential costs of implementing identified improvements to the current site condition monitoring of designated conservation sites, to improve on current methods which don't detect air pollution effects.

Progress: The second work package of the research outlined under the previous action will consider the mitigation potential for identified impacts.

Action: The Scottish Government will commission a review current monitoring of terrestrial ecosystems (and air pollution effects) in Scotland.

Progress: The research outlined under the previous two actions will link to newly commissioned work on new approaches to biodiversity monitoring.

Action: The Scottish Government will work with farmers through farmer-led groups, supported by scientific and economic expertise to co-develop new ways of working to better contribute towards delivering Scotland’s climate change and environmental outcomes.

Progress: A five year research project led by SRUC commenced in April 2022, with one of its objectives being the development of tools to encourage farmers, land managers and decision makers to reduce ammonia emissions. Researchers will draw on literature and existing and developing expertise to develop a farm-level ammonia footprinting and decision support tool for ruminant farmers, demonstrating the benefits of mitigation interventions on commercial farms.

Action: The Scottish Government will consider options to reduce emissions from large scale units in consultation with the agricultural sector, aligning with broader policy development around future rural support.

Progress: Another of the objectives of the research mentioned under the previous action will investigate trade-offs between ruminant production systems which reduce ammonia emissions and those which reduce methane emissions. It will also identify gaps in knowledge around ammonia emissions and trade-offs between ammonia and methane emissions and undertake research to address these.

8. Transport

Action: Transport Scotland will work with Local Authorities and SEPA to introduce Low Emission Zones into Scotland’s four largest cities.

Progress: Low Emission Zones were introduced in Aberdeen, Dundee and Edinburgh on 31 May 2022, together with further development of the Zone introduced in Glasgow in 2018. Enforcement will start in June 2023 in Glasgow and the other three cities in June 2024.

Action: Transport Scotland will provide financial support to businesses and individuals most affected by the implementation of LEZs through schemes such as the LEZ Support Fund and Scottish Bus Emissions Abatement Retrofit (BEAR) Fund.

Progress: The Low Emission Zone Support Fund launched in September 2020 providing funds targeted at lower income households and smaller businesses for disposal or retrofitting of non-LEZ compliant vehicles. This awarded £1.7 million in grants in 2020/21 and over £2.5 million in grants in 2021/22. Over 1,000 non-LEZ compliant vehicles have been disposed of since the fund opened.

The Bus Emission and Abatement Retrofit (BEAR) programme has awarded grants of £12.4 million to Scottish bus and coach operators for the retrofitting of 762 mid-life vehicles from 2018-2021. A further £6.2 million in grant awards was made available in 2021/22 in BEAR Phase 4 for 20 operators to retrofit a further 379 buses and coaches.

Action: SEPA working with local authorities and Transport Scotland will provide updates on the performance of the LEZs and continue to update the LEZ models to reflect changes associated with projects such as Spaces for People fund.

Progress: SEPA is now working with the local authorities in developing the reporting criteria for assessing LEZ performance and will submit proposals to the LEZ Consistency Group on the assessment criteria. Authorities are now looking at other areas outwith their LEZ boundary that were identified through SEPA modelling as potential areas of concern. SEPA has started work with Dundee City Council to assess such areas in Dundee.

Action: Local authorities working with Transport Scotland and SEPA will look at opportunities to promote zero-carbon city centres within the existing LEZs structure.

Progress: SEPA is looking to promote the carbon emissions tool that it has developed for regional traffic emissions based on miles travelled. SEPA is also completing the upgrade of its air quality modelling tools to include the most up to date carbon emission factors.

Action: Transport Scotland will continue to support cleaner taxis through provision of LEZ support funding.

Progress: The LEZ retrofit fund provides up to £10,000 per taxi towards the cost of upgrading taxis to the Euro 6 standard. Over 150 taxis have already been retrofitted through over £1.4 million in funding support.

Action: Transport Scotland will ensure that taxi operations are incorporated into the drafting of LEZ guidance, with cross reference to the 'Taxi and Private Hire Car Licensing' guidance.

Progress: LEZ guidance was published October 2021, including this cross reference.

Action: Transport Scotland will explore the merits of a national taxi and private hire licencing database in terms of supporting the LEZ enforcement regime.

Progress: Taxis are now to be treated as cars for the purpose of LEZ enforcement and therefore a database is no longer needed.

Action: Transport Scotland will engage extensively on future financing and delivery models to support growth in the public electric vehicle charging, including ChargePlace Scotland.

Progress: Building on the [report](#) published in July 2021 by Transport Scotland and Scottish Futures Trust (SFT) on the market for public EV charging in Scotland, SFT are continuing to engage local authorities and others in development of future financing and delivery models.

Action: Transport Scotland working with Scottish Procurement and Scottish Futures Trust will work across the public sector to accelerate the decarbonisation of vehicle fleets by establishing innovative ways to invest in zero emission vehicles at scale across the public sector, whilst maximising opportunities to leverage commercial investment through aggregated demand for new products, vehicles and infrastructure.

Progress: Transport Scotland, Scottish Procurement and SFT have explored options to enable and accelerate decarbonisation of the public sector fleet. SFT are currently developing a report on options to lever private sector investment in public sector fleets.

Action: Transport Scotland will continue to support the uptake of zero emission vehicles by supporting local authorities to bring forward innovative projects to incentivise battery electric and hydrogen vehicles, including through Switched on Towns and Cities programme and the Scottish Cities Alliance.

Progress: In November 2021, Glasgow City Council opened Scotland's first commercial electric vehicle charging hub, supported by Switched on Towns and Cities and intended to support public and private sector fleets. Scotland's first hydrogen refuse collection vehicle, funded through Switched on Towns and Cities, was deployed in Glasgow early 2022.

9. Governance, Accountability and Delivery

Action: The Scottish Government with support from SEPA will establish a Ministerial Group to provide high level leadership and direction for Cleaner Air for Scotland 2.

Progress: The Ministerial Group was established in November 2021 to oversee at a strategic level implementation of the actions set out in the strategy and accompanying delivery plan. The Group brings together senior representatives from the key organisations involved in delivering the actions, who will be responsible for ensuring that their organisations are both engaged and involved in the delivery process, together with senior representatives from other organisations who have a direct interest in the policy areas covered by Cleaner Air for Scotland 2. The Group met for the first time in December 2021 and six monthly thereafter. One of its key tasks will be to sign off the annual report summarising progress with implementation over the previous year, which will then be presented to Parliament prior to summer recess.

Action: The Scottish Government with support from SEPA will establish a Delivery Group with a clear remit and well defined responsibilities for ensuring that the actions in Cleaner Air for Scotland 2 are delivered.

Progress: The Delivery Group was established in November 2021 to manage implementation of the strategy, in particular ensuring that specific milestones and overall timelines for each action are on track and, where necessary, deciding on

appropriate mitigation to maintain momentum. The Delivery Group met for the first time in December 2021 and quarterly thereafter.

Action: The Delivery Group with support from the Scottish Government will establish a series of specialist groups to provide advice to and support the work of the Delivery Group.

Progress: In the first part of 2022 five specialist Working Groups were established to support the Delivery Group, covering domestic combustion, agriculture/environment, placemaking, public engagement and health. Each group has held its initial meeting, with the domestic combustion group having met twice at the time of writing. All of the groups will meet quarterly thereafter.

Action: The Delivery Group with support from the Scottish Government will produce an enhanced and strengthened annual performance report documenting progress in implementing Cleaner Air for Scotland 2.

Progress: This is the first annual progress report for Cleaner Air for Scotland 2. In future years, the delivery plan will also be updated to show the status of each action.

10. Further Progress Review

The further progress review action in Cleaner Air for Scotland 2 have been classed as long term, and work on taking this forward is yet to commence.