



The Scottish Parliament
Pàrlamaid na h-Alba

Published 11 May 2023
SP Paper 353
7th Report, 2023 (Session 6)

Net Zero, Energy and Transport Committee

Report on the Scottish Government's Air Quality Improvement Plan and wider air quality issues



Published in Scotland by the Scottish Parliamentary Corporate Body.

All documents are available on the Scottish
Parliament website at:
[http://www.parliament.scot/abouttheparliament/
91279.aspx](http://www.parliament.scot/abouttheparliament/91279.aspx)

For information on the Scottish Parliament contact
Public Information on:
Telephone: 0131 348 5000
Textphone: 0800 092 7100
Email: sp.info@parliament.scot

Contents

Introduction	1
Background	3
ESS Air Quality Improvement Report	4
Overview of NZET Scrutiny	5
Improvement Plan	8
Local authority roles and responsibilities in relation to air quality	8
Governance	10
Monitoring	12
Conclusions	13
Cleaner Air for Scotland 2	16
Integration of Policy	17
Transport	19
Low Emissions Zones and other local measures	22
Best practice on air quality	24
International best practice	24
World Health Organization (WHO) Guidelines 2021	25
Annexe A - Correspondence from Mark Roberts, Chief Executive of Environmental Standards Scotland	28

Net Zero, Energy and Transport Committee

To consider and report on matters falling within the responsibility of the Cabinet Secretary for Net Zero, Energy and Transport, with the exception of matters relating to rural land use, wildlife crime and animal welfare.



netzero.committee@parliament.scot

Committee Membership



Convener
Edward Mountain
Scottish Conservative
and Unionist Party



Deputy Convener
Fiona Hyslop
Scottish National Party



Jackie Dunbar
Scottish National Party



Liam Kerr
Scottish Conservative
and Unionist Party



Monica Lennon
Scottish Labour



Ash Regan
Scottish National Party



Mark Ruskell
Scottish Green Party

Introduction

1. The Scottish Parliament has a new role in post-Brexit environmental law: to consider Improvement Plans laid by the Scottish Government and resolve whether to approve them. On 27 March 2023, [the Scottish Government laid an Air Quality Improvement Plan](#) before the Scottish Parliament. The Improvement Plan is the first of its nature under the new procedures set out the [UK Withdrawal from the European Union \(Continuity\) \(Scotland\) Act 2021](#) ('The Continuity Act').
2. The Improvement Plan follows the issuing of an [Air Quality Investigation Improvement Report](#) from Environmental Standards Scotland (ESS), a new environmental watchdog established to fulfil governance gaps in environmental law following EU exit. ESS's investigation was instigated following a [judgement made by the European Court of Justice](#) in 2021 which found that across the UK breaches of air quality limit values for nitrogen dioxide had been "systematic and persistent" between 2010 and 2017.
3. Under the Continuity Act, when an Improvement Plan is laid the Scottish Parliament then has 40 days (not including any period of recess or dissolution of more than 4 days) to resolve if it should be approved. A motion will be taken in the Chamber. If the Parliament approves the Improvement Plan, the Scottish Government must publish it. However, if the Parliament resolves that the plan should not be approved, Scottish Ministers must update their plan to incorporate the views of the Parliament and lay a revised copy within a period of 3 months.
4. The Net Zero, Energy and Transport Committee has been designated by the Scottish Parliament Bureau as lead Committee to scrutinise the Scottish Government's Air Quality Improvement Plan. This means that the Committee must consider the Plan and report its findings to the Scottish Parliament before the end of the 40-day period, to help inform consideration of the motion.
5. ESS has the authority to issue an Improvement Report if it considers a public authority has failed to comply with environmental law and to make recommendations to ensure compliance. When they lay an Improvement Report, the Scottish Ministers then have six months (or nine months if they wish to undertake consultation) to prepare an Improvement Plan and lay it before the Scottish Parliament. The Plan must describe—
 - the measures that the Scottish Ministers propose to take to implement the recommendations (in full or in part);
 - the proposed timescale for implementing the recommendations;
 - the arrangements for reviewing, and reporting on, progress in implementing the recommendations; and
 - if the Scottish Ministers do not intend to implement the recommendations in the improvement report (in full or in part), the reasons for that.
6. The main focus of our scrutiny has been the contents of the Improvement Plan to help fulfil the statutory procedure for parliamentary approval. Our main finding is that the Improvement Plan has delivered on most of the key issues and messages

from ESS's Improvement Report. We therefore recommend that the Scottish Parliament approve the Improvement Plan. We agree that strengthening relevant policy guidance in the manner proposed in the Plan is an appropriate way to proceed and should deliver greater clarity on what all relevant bodies need to do to safeguard and improve air quality. However, some important questions around how improvements will be made to monitoring, governance and enforcement of air quality have not been wholly answered. These are discussed in further detail in this report.

7. Within the narrow time frame for scrutiny that was available, we agreed to take the opportunity to investigate wider air quality issues in Scotland. We wanted to take a broader look at Scottish Government policies for improving air quality, and consider what lessons could be learned from other parts of the UK or internationally. Three themes we discuss are—
- The policies and actions set out in the Scottish Government's 'Cleaner Air for Scotland 2 Strategy';
 - The implementation and potential impact of Low Emissions Zones (LEZs) in Edinburgh, Glasgow, Aberdeen and Dundee; and
 - Scotland's performance in relation to international best practice on air quality.

Background

8. Clean air is a necessity for humans and our environment. The air that we breathe is paramount to our mental and physical wellbeing, with good air quality having strong links to better quality of life. Air pollution, and its harmful effects, currently represents one of the biggest threats to public health in Scotland, [with recent analysis](#) attributing around 1700 premature deaths to the issue annually.
9. Tackling air pollution should therefore be considered as a key priority for the Scottish Government. Successful interventions will provide positive health outcomes, allowing people to live longer and healthier lives. They can also reduce the prevalence of respiratory and cardiovascular illness, which often require costly intervention. Good air quality can also deliver multiple benefits across a wide array of economic, social and environmental issues. Cleaner air can also be both a driver and an outcome of meeting the Scottish Government's national target of achieving Net Zero by 2045.
10. Air quality standards and regulations in Scotland span both reserved and devolved competence. Responsibility for negotiating and implementing international agreements around air pollution is for the UK Government. Development of air quality policy is a matter for the Scottish Government.
11. Scotland's statutory air quality limits and target values for ambient outdoor pollutants are partially derived from previous EU Directives and retained in domestic statute books following Brexit. Nine air pollutants in the UK are currently subject to legal limits—
 - Sulphur dioxide
 - Nitrogen oxides
 - Particular matter (PM10, PM2.5 and PM1)
 - Ozone and volatile organic compounds
 - Toxic Organic Micro-Pollutants (TOMPS)
 - Benzene
 - 1,3-Butadiene
 - Carbon monoxide
 - Lead and heavy metals
12. The way in which air quality is monitored and assessed at a local level is through a regime called Local Air Quality Management (LAQM). The system was first established through provisions in [Part IV of the Environment Act 1995](#). Under this legislation, local authorities are tasked with monitoring and maintaining compliance with air quality standards in their areas.
13. In localities where these objectives are not being achieved, local authorities are legally required to—

- designate an Air Quality Management Area (AQMA); and
- bring forward proposals to improve air quality by producing an Air Quality Action Plan (AQAP).

ESS Air Quality Improvement Report

14. On 29 September 2022, [ESS published its first Improvement Report](#), on the issue of nitrogen dioxide levels in Scotland. The report noted a "slow, incremental, improvement in air quality" in Scotland with more progress expected as a result of recent measures such as the introduction of LEZs. However, ESS's investigation identified parts of Scotland where legal limits on nitrogen dioxide had not been achieved for a prolonged period. Its assessment was that this current trajectory would not change without remedial actions by the Scottish Government.ⁱ
15. ESS provided six recommendationsⁱⁱ for the Scottish Government to take forward to address current issues relating to nitrogen dioxide levels—
 1. **Recommendation 1:** Introduce the requirement for local authorities to complete and publish AQAPs within a specified target date following the declaration of an AQMA, which must be within as short a time as possible.
 2. **Recommendation 2:** Introduce the requirement for local authorities to achieve AQMA and AQAP objectives within a specified target date, which must be within as short a time as possible.
 3. **Recommendation 3:** Introduce the requirement for local authorities to review and, where necessary, update AQAPs. The targets for any such review and update must be consistent with the principle of as short a time as possible.
 4. **Recommendation 4:** Identify or introduce a monitoring body with the remit to look at the system of air quality monitoring and compliance holistically (including the monitoring of the implementation and effectiveness of LEZs). It is critical that this body should be able to move quickly where air quality does not meet legal requirements, consistent with the principle of achieving compliance within the shortest time possible, and thus it should have the requisite power to direct action when deemed necessary.
 5. **Recommendation 5:** Ensures that its ongoing review of data provision scrutinises the protocols for the siting of monitors, with a view to establishing whether they provide a sufficiently comprehensive picture of the state of air quality, particularly in and around our major cities. Specific focus should be placed on areas where vulnerable groups are present, such as schools and hospitals.
 6. **Recommendation 6:** Revises its Cleaner Air for Scotland 2 (CAFS2) strategy to include specific and measurable timescales (consistent with the overarching duty to achieve compliance within the shortest time possible) for when

ⁱ Environmental Standards Scotland (2022). [Air Quality Investigation Improvement Report](#), p52.

compliance with nitrogen dioxide limit values should be achieved.

Overview of NZET Scrutiny

16. It has been the NZET Committee's intention to undertake some scrutiny on air quality since near the beginning of this Parliamentary session, building on work undertaken last session by the Environment, Climate Change and Land Reform Committee, with its [2018 air quality inquiry](#) to understand what progress has been made since then. A [letter we received on 22 January 2022 from 11 key stakeholders](#) also raised important issues worthy of further consideration. With awareness that ESS's investigatory work was ongoing, and that this was likely to lead in due course to an Improvement Plan being referred to the Committee, we agreed at the start of the year to prepare for this by launching a targeted call for views on air quality. We also discussed potential witnesses in advance of the Plan being laid.
17. The call for views was issued on 11 February. We received written responses from—
 - [Asthma + Lung UK Scotland](#);
 - [Prof Jill Belch](#), Immediate Past President of European Society of Vascular Medicine, Division of Molecular and Clinical Medicine, Ninewells Hospital and Medical School;
 - [Convention of Scottish Local Authorities \(COSLA\)](#);
 - [Confederation of Passenger Transport \(CPT\) Scotland](#);
 - [Environmental Rights Centre for Scotland \(ERCS\)](#);
 - [Dr Gary Fuller](#), UKRI Clean Air Champion and Senior Lecturer in Air Quality Measurement, Imperial College London;
 - [Professor Campbell Gemmell](#), Partner, Canopus Scotland and Hon Prof. Glasgow University and Visiting Prof. Strathclyde University Law School;
 - [Dr Heather Price](#), Senior Lecturer in Environmental Geography, Biological and Environmental Sciences, University of Stirling;
 - [Fife Council](#);
 - [Living Streets Scotland](#);
 - [The City of Edinburgh Council](#);
 - [Royal College of Physicians of Edinburgh](#);
 - [Royal Town Planning Institute \(RTPI\) Scotland](#);

ii Environmental Standards Scotland (2022). [Air Quality Investigation Improvement Report](#), p53-54.

- [Scottish Environment Protection Agency \(SEPA\)](#);
- [Sustrans Scotland](#).

We thank everyone who shared their knowledge and expertise with us.

18. [At our meeting on 18 April 2023](#), we commenced our oral evidence taking by holding a roundtable discussion with stakeholders and experts—
 - Dr Gary Fuller, UKRI Clean Air Champion and Senior Lecturer in Air Quality Measurement, Imperial College London;
 - Stuart Hay, Director, Living Streets Scotland;
 - Craig McLaren, Director, Royal Town Planning Institute Scotland;
 - Gavin Thomson, Air Pollution Campaigner, Friends of the Earth Scotland; and
 - Paul White, Director, Confederation of Passenger Transport (CPT) Scotland.
19. Afterwards, we held an evidence session with a panel of local authority representatives to discuss good practice in relation to air quality management at a local level and what progress has been made in Scotland's cities in relation to the introduction of LEZs. We heard from—
 - Kenny Bisset, Lead Officer, Land and Air Quality Team, Fife Council;
 - Dom Callaghan, Assistant Group Manager, Sustainability, Glasgow City Council; and
 - Shauna Clarke, Environmental Health Officer, The City of Edinburgh Council.
20. [On 25 April](#), we held an evidence session with ESS to hear its views on whether the Improvement Plan could deliver on the key recommendations of the Improvement Report. The Committee took evidence from—
 - Mark Roberts, Chief Executive, ESS; and
 - Jamie McGrandles, Head of Investigations, Standards and Compliance, ESS.
21. Ahead of this session, we also received a [written statement from ESS](#) outlining its views on the Improvement Plan. This submission can be found in the annexe of the report.
22. Following the session with ESS, we concluded our evidence taking by taking evidence from the Scottish Government. We heard from—
 - Màiri McAllan, Cabinet Secretary for Net Zero and Just Transition, Scottish Government;
 - Andrew Taylor, Air Quality Policy Manager, Scottish Government;
 - Vincent McNally, Environment and Air Quality Manager, Transport Scotland.
23. These evidence sessions touched on both the Improvement Plan itself and wider

issues around air quality policy. Our thanks to all witnesses who attended these sessions.

Improvement Plan

Local authority roles and responsibilities in relation to air quality

24. ESS's Improvement Report highlights a number of deficiencies with the LAQM system which, it argued, has caused fundamental failures in meeting air quality standards. Itsaid weaknesses in the current system constituted a "systemic failure" in the effectiveness of environmental law in Scotland by increasing the likelihood amongst the public of health risks resulting from poor air quality.ⁱⁱⁱ
25. Recommendations 1,2 and 3 of ESS's Improvement Report outline steps the Scottish Government should take to improve the function of the LAQM regime. Referenced in the report were specific concerns in relation to—
- the lack of any legal requirement for local authorities to complete and publish AQAPs within a specified target date following the declaration of an AQMA;
 - the lack of any legal requirement on local authorities to complete AQMA objectives within a specified timeframe; and
 - the lack of any legal requirement for local authorities to review and, where necessary, update AQAPs.^{iv}
26. The main commitment by the Scottish Government in its Improvement Plan was to address these concerns by updating its [guidance to local authorities in meeting local air quality management \(LAQM\)](#) duties under Part IV of the Environment Act 1995.^v
27. The Scottish Government says these revisions will assist with streamlining the implementation of AQAPs and provide greater certainty around what is expected of local authorities in undertaking their roles and responsibilities. Included in these amendments were—
1. a more clearly defined requirement for AQAPs to be published within as short a time as possible and no later than 12 months from AQMA designation.^{vi}
 2. specified target dates for completing each AQAP measure, well defined milestones towards completion, a clearer requirement for assessing the estimated reduction in pollutant concentrations contributed by each AQAP measure.^{vii}
 3. that AQAP measures should be delivered within as short a time as possible, and that the action plan itself should have a timescale for completion and for

iii ESS (2022). [Air Quality Investigation Improvement Report](#), p53.

iv ESS (2022). [Air Quality Investigation Improvement Report](#), p53.

v Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p4.

revocation of the AQMA.

4. a more explicit requirements for joint working with Transport Scotland and SEPA on actions which lie outside direct local authority control, for example where exceedences of objectives relate to the trunk road network or SEPA controlled processes, and with neighbouring authorities on actions which have cross boundary implications; and
 5. a clearer requirement that AQAPs should be reviewed and, where necessary, updated within one year of the revised guidance being published, and every five years subsequently.^{viii}
28. ESS has broadly welcomed the steps taken by the Scottish Government for improving the operation of the LAQM and said that the updated guidance represented a significant step forward.^{ix} They told us these revisions illustrated an additional strengthening and clarification to the timescales for local authorities to prepare their AQAPs following designation of an AQMA.^x
29. Given the crucial role councils play in relation to air quality, the Committee is disappointed that COSLA declined an invitation to give oral evidence. Instead they sent us a short submission stating that their "recent priority and focus has necessarily been on the wider net zero and just transition agenda". The letter mentioned the pressure of resources on local authorities. It said the obligation to publish AQAPs within a year of declaring an AQMA was "too short a timescale and it could be challenging for a number of local authorities to meet".^{xi}
30. The Cabinet Secretary said the Scottish Government had discussed resourcing of air quality with local authorities as part of working groups established through CAFS2. The Scottish Government indicated that supplementary funding was available to local authorities in relation to actions set out in their AQAPs. The Cabinet Secretary also said that the Scottish Government had discussed resourcing of air quality with local authorities as part of working groups established through CAFS2.^{xii}
31. The Improvement Plan proposes a five-year cycle for reviewing AQAPs. ESS did not support this. They declined the offer to express a definitive view on what the preferred cycle should be but said a five-year timeframe did not reinforce the underlining principle that initiatives relating to AQAPs should be implemented in "as
-

vi Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p4.

vii Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p4-5.

viii Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p5-6.

ix Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) col 2 and written submission from [ESS](#).

x Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) col 4 and written submission from [ESS](#).

xi [COSLA](#). Written submission, paragraph 5.

xii Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) cols 16-17.

short a time as possible".^{xiii}

32. The rationale put forward by the Cabinet Secretary was this cycle would align with national review periods for CAFS2 and allow opportunity for measures to be embedded and their effects properly assessed.^{xiv} Moreover, the Scottish Government said there was an expectation that specific actions within AQAPs would be achieved within a shorter timeframe than the overall five-year life cycle of the plan, and that alongside SEPA they would review Annual Progress Reports published by local authorities to identify any opportunities for the roll out of measures to be expedited. The Cabinet Secretary added that an automatic review of AQAPs is triggered in instances whereby a significant change of circumstances has occurred within a local area.^{xv}

Governance

33. Under Section 85 of the Environment Act 1995, SEPA has responsibility for providing oversight of the LAQM system. In its Improvement Report, ESS raised significant concerns about the performance of the current governance and enforcement framework underpinning the system, which it argued has contributed to a failure in ensuring compliance with nitrogen dioxide standards.^{xvi} ESS's Improvement Report notes that SEPA is yet to exercise its powers under Section 85 despite historic non-compliance by local authorities in meeting air quality standards.^{xvii}
34. As a result, ESS's Recommendation 4 asks the Scottish Government to establish an appropriate monitoring body with the capacity to monitor the effectiveness of local authority compliance. ESS said it was crucial this monitoring body had the necessary remit and powers to "move quickly where air quality does not meet legal requirements". ESS's Improvement Report also says this body must have authority to provide oversight of the LAQM system to assess its effectiveness into the future.^{xviii}
35. In response, the Improvement Plan says that SEPA, as the current monitoring authority, has the appropriate powers and expertise to undertake the functions of the proposed monitoring body. The Scottish Government argues that SEPA already holds significant enforcement powers under Section 85 of the Environment Act 1995 for the authority to, where necessary, compel local authorities to make improvements in relation to air quality.^{xix}

^{xiii} Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) col 7 and written submission from ESS.

^{xiv} Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) col 18.

^{xv} Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#) cols 18-19.

^{xvi} ESS (2022). [Air Quality Investigation Improvement Report](#), p3.

^{xvii} ESS (2022). [Air Quality Investigation Improvement Report](#), p28.

^{xviii} ESS (2022). [Air Quality Investigation Improvement Report](#), p53.

^{xix} Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p6.

36. The Cabinet Secretary told us that she was satisfied that revisions to policy guidance would deliver a more robust approach to enforcement. She argued this was because new policy guidance stipulates an expectation by Scottish Government that SEPA will use its reserve powers routinely "when a local authority is failing manifestly to complete its obligations".^{xx} This was in contrast to previous guidance that said SEPA's powers should be exercised on a case-by-case basis.
37. In oral evidence, ESS told us they were content that SEPA did possess the necessary enforcement powers to fulfil the monitoring of local authorities under the LAQM system. However, they argued that SEPA's approach to enforcement had previously been insufficient as a direct consequence of SEPA's reluctance to initiate formal resolution measures against failing local authorities.^{xxi} Similar concerns about SEPA's vigilance as an air quality regulator were highlighted by some stakeholders. Professor Campbell Gemmell said—
- ” It is also concerning, especially over the last decade, that SEPA has not once, as ESS points out, used its Section 85 powers to seek AQMA and now LEZ related performance improvements. These issues suggest that the ESS proposal of an overseeing monitoring body is both an excellent idea but one which cannot readily or reliably involve either local government or SEPA, despite the latter's logical national oversight locus.^{xxii}
38. In their written evidence, ESS indicated that they were unclear whether SEPA had the ability to fulfil the duties highlighted in their Improvement Report regarding overseeing the effectiveness of the LAQM system.^{xxiii} The Cabinet Secretary told us she was confident SEPA already had the powers to discharge this additional function.^{xxiv}
39. We also questioned whether SEPA had the necessary resources to undertake the additional monitoring functions effectively. The Cabinet Secretary said SEPA had confirmed it was capable of undertaking its additional duties within its existing budget.^{xxv} ESS said they were "cautiously optimistic" that SEPA had enough resources for this expanded role. However, they said they would expect SEPA to make representations to the Scottish Government on an ongoing basis to ensure adequate funding was provided.^{xxvi}
40. ESS's Improvement Report was also critical of what it viewed as an "overly opaque and complex" governance structure.^{xxvii} In oral evidence, they told us improvements were needed to enhance transparency in the system for the public to know how decisions were being made in terms of monitoring the current regime.^{xxviii} The Cabinet Secretary told us that operational decision-making was a matter for SEPA, but said the role of the Scottish Government was to provide the framework which

xx Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 8.

xxi Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), cols 20-21.

xxii [Professor Campbell Gemmell](#). Written submission, paragraph 4.

xxiii [ESS](#). Written submission, paragraphs 18-19.

xxiv Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 10.

xxv Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 21.

xxvi Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 21.

facilitates the agency in taking forward its duties.^{xxix}

Monitoring

41. ESS's Improvement Report questioned if Scotland's air quality monitoring network was suitably comprehensive.^{xxx} It emphasised the importance of having monitoring sites sited in the right places; in lockstep with modern scientific understanding, and focused on protecting vulnerable groups, such as older people or infants.^{xxxi} Recommendation 5 of ESS's Improvement Report requests for the Scottish Government to consider protocols around the siting of monitoring stations as part of a review it has committed to undertake into data provisions.^{xxxii}
42. The Improvement Plan accepted this recommendation and explains that, since the LAQM was established, local authorities have been continually developing their approaches to monitoring to meet specific issues within their local areas.^{xxxiii} During the evidence session on 25 April, Scottish Government officials told us they provide local authorities with technical guidance and modelling data to assist them in identifying potential monitoring sites. They claimed this information can help to accurately predict pollution levels at locations where monitoring stations are not present.^{xxxiv}
43. However, we heard evidence from stakeholders that more a robust system of monitoring was required for areas situated near vulnerable groups such as schools and hospitals.^{xxxv} In written evidence, The Royal College of Physicians of Edinburgh recommended placing air quality monitors at all Scottish city primary schools for at least one year and, once completed, for the same monitoring at secondary schools.^{xxxvi} Local authority representatives said they already tended to prioritise sensitive locations when siting monitoring stations.^{xxxvii}

xxvii ESS (2022). [Air Quality Investigation Improvement Report](#), p52.

xxviii Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 9.

xxix Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 20.

xxx ESS (2022). [Air Quality Investigation Improvement Report](#), p52.

xxxi ESS (2022). [Air Quality Investigation Improvement Report](#), p34.

xxxii ESS (2022). [Air Quality Investigation Improvement Report](#), p53.

xxxiii Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p7.

xxxiv Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 23.

xxxv Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), cols 20-22 and written submissions from [Living Streets Scotland](#), [Professor Jill Belch](#) and [The Royal College of Physicians of Edinburgh](#).

xxxvi [The Royal College of Physicians of Edinburgh](#). Written submission, paragraph 1.

xxxvii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 46-47.

44. The Improvement Plan notes that as part of the Scottish Government's review of data provision, SEPA has assembled a spreadsheet of air quality monitoring stations used by local authorities in carrying out their LAQM duties. This covers 100 automatic monitoring stations and 1,100 diffusion tube locations. In addition, SEPA possesses a data sheet indicating how often air quality limits had been exceeded at those locations in the previous five years.^{xxxviii}
45. The Cabinet Secretary said that monitoring stations have been located near local hotspots where historically air quality has been at its worst. In her view, this gave her confidence that the network was feeding back a sample which depicted an accurate representation of the overall state of air quality in Scotland.^{xxxix} However, ESS questioned whether the current network of monitoring was comprehensive enough to detect poor air quality across the country. They said more consideration was needed of how monitoring by local authorities could be future-proofed should tougher standards, such as lower air quality limits, be introduced.^{xi}
46. Another issue raised by experts and stakeholders in regards to monitoring was vehicles idling outside schools. They said the lack of action to address idling in Scotland was an example of local authorities not using their enforcement powers.^{xli} The Cabinet Secretary highlighted that local authorities had powers to tackle idling outside schools through issuing fixed penalty notices to drivers. It was also mentioned that Scottish Government guidance for how these powers should be enforced by local authorities emphasised a flexible approach with fixed penalty notice being a last resort. The Scottish Government argued that in most cases drivers were content to switch their engines off when asked to by local officials.^{xlii}

Conclusions

47. The Scottish Government's Air Quality Improvement Plan is overall a positive step forward in addressing nitrogen dioxide levels in Scotland. It takes into account most of the issues and recommendations made by ESS in its Improvement Report. We recommend that the Improvement Plan be approved by the Scottish Parliament.

48. ESS has, however, raised concerns about the five-year review period for local authority to revise their respective AQAPs proposed in the Improvement Plan,

^{xxxviii} Scottish Government (2023). *Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan*, p7-8.

^{xxxix} Net Zero, Energy and Transport Committee. *Official Report, 25 April 2023*, col 22.

^{xi} Net Zero, Energy and Transport Committee. *Official Report, 25 April 2023*, cols 10-11.

^{xli} Net Zero, Energy and Transport Committee. *Official Report, 25 April 2023*, col 9 and written submissions from [Living Streets Scotland](#), [Professor Jill Belch](#) and [The Royal College of Physicians of Edinburgh](#).

^{xlii} Net Zero, Energy and Transport Committee. *Official Report, 25 April 2023*, cols 23-24.

considering this to be too long, and we understand that concern. We urge the Scottish Government to utilise all review mechanisms at its disposal, such as Annual Progress Reports, to work with local authorities to accelerate the implementation of AQAPs.

49. A key finding of our recent report into the [role of local government and its partners in financing and delivering a net-zero Scotland](#) was that the often acute resource and staffing constraints councils are under inhibits their ability to think strategically about climate change and other environmental matters, where intervention "upstream" of the problem is most needed. This applies specifically in relation to air quality where local authorities have a crucial preventative, attention-raising, monitoring and enforcement role. This does not mean councils cannot currently do good work on air quality- we saw that some do. Disparities in performance on air quality are concerning and point to the need for some local authorities to learn good practice from their peers. But, without a more secure funding base, councils may continue to struggle to make the most of that strategic role, which risks hindering full realisation of the Improvement Plan's aims.

50. On paper, SEPA has quite wide ranging enforcement powers to monitor local government compliance with LAQM requirements. However, this does not seem to carry through into actions. The Committee doubts that a change in policy guidance will automatically lead to SEPA taking a more robust enforcement approach. Furthermore, we note that ESS is unclear as to whether SEPA has the necessary powers to fulfil the proposed additional duty of holistic oversight of the LAQM system. This point is particularly pertinent given that SEPA's resources are already limited and it has other existing obligations. This includes the supporting role SEPA plays on local air quality steering groups, where we expect the agency to take a more proactive role in the future. We call on the Scottish Government to clarify whether it is satisfied SEPA has all the statutory powers and resources it needs to take on the enhanced role now envisaged for it.

51. ESS's Improvement Report highlighted opaque and complex governance structures for monitoring nitrogen dioxide compliance. It does not appear to us that the Improvement Plan will comprehensively tackle this. As a Committee, we recognise the role we must play in holding bodies such as SEPA to account (without interfering in their day-to-day operational role) in relation to their air quality duties, as in other areas, and this is something we expect to pursue in future. But we also call on the Scottish Government to set out what steps it will take to ensure SEPA delivers greater transparency and accountability as Scotland's main air quality watchdog.

52. We support the Scottish Government's commitment to review air quality data provision, including an analysis of monitoring sites. Stakeholders made clear that

best practice on monitoring, including on locating monitoring stations, means keeping pace with the most up-to-date evidence on the health impacts of air pollution, particularly in relation to vulnerable groups such as infants and older people. When the review is completed, we ask that the Scottish Government provide a written summary of its key findings, including on the siting of monitoring equipment near schools and hospital, and any relevant data.

53. We are aware that concerns have been raised by stakeholders about an apparent lack of action in enforcing anti-idling laws around schools, whilst current guidance advises councils to treat penalties as a last resort. We recommend that the Scottish Government, in partnership with local authorities and others, reviews this guidance to ensure it remains fit for purpose and consistent with—

- The Improvement Plan;
- Its "Cleaner Air for Scotland 2" strategy;
- Its wider ambitions around achieving net zero by 2045.

Cleaner Air for Scotland 2

54. In 2021, the Scottish Government published '[Cleaner Air for Scotland 2: Towards a Better Place for Everyone](#)'. The strategy sets out the Scottish Government's approach to making further improvements to air quality over its five-year life cycle. The development of CAFS2 followed an [independently-led review by Professor Campbell Gemmell](#) into the Scottish Government's previous air quality strategy. [Accompanying the strategy is a delivery plan](#) designating policy measures as short, medium or long term for implementation. The Scottish Government has committed to undertaking a review of CAFS2 in 2024 to take stock of progress and with the aim of publishing a new strategy by the end of 2025.
55. Stakeholders were supportive of the principles and ambitions in CAFS2. It was noted that the vision for the strategy of "Scotland having the best air quality in Europe" matched the scale of ambition required to deliver significant improvement in air quality. They also said this showed intent by the Scottish Government to make air quality a priority.^{xliii}
56. However, ESS's Improvement Report identified a number of issues concerning CAFS2. It said the strategy "does not outline specific time periods for proposals to be implemented and timescales to attain objectives" and had "insufficient detail and modelling of how it is likely that the proposed system will bring about compliance within the shortest time possible".^{xliv} Recommendation 6 of ESS's Improvement Report asks the Scottish Government to revise CAFS2 to include measurable timescales for when compliance with nitrogen dioxide limits should be achieved.^{xlv}
57. In the Improvement Plan, the Scottish Government mentions that the CAFS2 delivery plan has now been revised to add further detail to the broad categories, so as to allow a more detailed assessment of progress to be made.^{xlvi} In its submission, ESS welcomed this additional clarity and said they would be monitoring the Scottish Government's progress in relation to these new timescales.^{xlvii}
58. Overall, stakeholders considered that the ambitions of CAFS2 have yet to be fully realised. This was due to an identifiable lack of progress in implementing many of the key measures set out in the strategy.^{xlviii} An absence of joined-up policy making and a lack of progress in facilitating a modal shift from private car usage were specifically highlighted as inhibitors in achieving the ambitions of CAFS2.

xliii Written submissions from [ERCS](#), [Sustrans Scotland](#), [Asthma + Lung UK Scotland](#), [SEPA](#) and [Dr Heather Price](#).

xliv ESS (2022). [Air Quality Investigation Improvement Report](#), p46.

xlv ESS (2022). [Air Quality Investigation Improvement Report](#), p54.

xlvi Scottish Government (2023). [Environmental Standards Scotland air quality investigation - Scottish Government Improvement Plan](#), p9-10.

xlvii [ESS](#). Written submission, paragraph 27.

xlviii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 10, 11, 12, 13 and written submissions from [Living Streets Scotland](#), [Sustrans Scotland](#), [Dr Heather Price](#) and [Asthma + Lung UK Scotland](#).

Integration of Policy

59. CAFS2 describes the importance of developing joined-up decision making around air quality for benefits to be experienced across policy agendas and ministerial portfolios.^{xlix}
60. The Cabinet Secretary said LEZs were an example of effective collaboration between local authorities, the Scottish Government and Transport Scotland, and SEPA.ⁱ She also indicated that the Scottish Government was working with the agriculture industry on developing a voluntary code of practice for tackling air pollution in the sector.ⁱⁱ
61. Stakeholders underlined that initiatives which seek to support greater linkage between the 'three way axis' of air quality, health and climate change were likely to add more value.ⁱⁱⁱ This complements [similar findings from our inquiry](#) on the role of local government and its cross sectoral partners in financing and delivering a net zero Scotland.^{liii}
62. CAFS2 also stresses the importance and benefit of taking a place-based and place-making approach.^{liv} The strategy defines place-making as "working collaboratively across professions and communities to identify the best place-based solutions for the issues that we face".^{lv} This is also a key theme of the new [National Planning Framework 4 \(NPF4\)](#). The revised framework includes a clear emphasis on consideration of air quality when making planning decisions. NPF4 makes clear that that development proposals which would evidently deliver poor air quality outcomes should not be supported. Planning authorities are also tasked to look for opportunities to strengthen air quality and reduce air pollution when taking decisions.^{lvi}
63. RTPI Scotland welcomed the steps the Scottish Government has taken through NPF4 to move air pollution considerations higher up the planning hierarchy. They particularly welcomed what they saw as the joined-up nature of NPF4 and CAFS2. They said this now showed a far clearer linkage between air quality and planning policy.

^{xlix} Scottish Government (2021). [Cleaner Air for Scotland 2 - Towards a Better Place for Everyone](#), p26-31.

ⁱ Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 27.

ⁱⁱ Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 29.

ⁱⁱⁱ Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 13.

^{liii} Net Zero, Energy and Transport Committee. 1st Report, 2023 (Session 6). [The role of local government and its cross-sectoral partners in financing and delivering a net-zero Scotland](#) (SP Paper 302).

^{liv} Scottish Government (2021). [Cleaner Air for Scotland 2 - Towards a Better Place for Everyone](#), p32-38.

^{lv} Scottish Government (2021). [Cleaner Air for Scotland 2 - Towards a Better Place for Everyone](#), p33.

^{lvi} Scottish Government (2023). [National Planning Framework 4](#), p76.

64. However, RTPI Scotland also said it was too early to say if the aims of NPF4 would be delivered in practice^{lvii} The acute difficulties faced in recent years by planning departments both in terms of future funding and workforce is an issue the Committee has become familiar with in prior scrutiny of local government and net zero and of the draft NPF4, and were raised once again by RTPI Scotland, in relation to air quality measures.^{lviii} An official from the City of Edinburgh Council spoke of a 'crisis' in the shortage of local environmental health officers across the country.^{lix}
65. The Cabinet Secretary said she was aware of problems with recruitment with local government and the Scottish Government was working with educational institutions to attract greater uptake in these professions.^{lx}
66. We heard evidence from Fife Council about the work they have been doing to change the culture by strengthening internal collaboration with officials from other council departments, exhibiting a place-based approach in action. We heard that this mutual recognition of how agendas can benefit from better joint working had delivered significant benefits.^{lxi} However, there was a recognition that not all local authorities were moving at the same pace. We also heard of concerns that air quality remained a policy area largely siloed at a national level.^{lxii} Dr Heather Price said—
- ” CAFS2 highlighted the need to work across systems, for example addressing air quality and climate change through joined-up action and linking air quality and health actions more effectively. I haven't seen any evidence of this happening particularly effectively to date.^{lxiii}
67. Scottish Government officials told us that structures for overseeing CAFS2 were developed to ensure a high degree of integration. They said the Minister for Transport and Transport Scotland officials were represented on ministerial and official level delivery groups for CAFS2.^{lxiv} However, we heard concerns from stakeholders that transport strategies did not include appropriate reference to air quality as a key consideration and that Transport Scotland did not always seem aligned to the priorities of CAFS2.^{lxv} For example, Friends of the Earth Scotland told us that that transport and air quality programmes seem to 'inhabit two separate worlds'.^{lxvi}

lvii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 12-13.

lviii [RTPI Scotland](#). written submission, paragraph 6.

lix Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 30.

lx Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 28.

lxi Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 28.

lxii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 5, 11, 12 and written submissions from [Living Streets Scotland](#) and [Dr Heather Price](#).

lxiii [Dr Heather Price](#). Written submission, paragraph 7.

lxiv Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 27-28.

lxv Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 11, 12 and 13.

68. Integrating air quality considerations into decision-making about climate change, health, transport and planning should be considered a priority, whether at national and strategic level or at the local or "everyday" level. The importance of place-making as set out in CAFS2 also aligns with key recommendations from our inquiry into local government which supports a place-based response at a local and regional level.

69. We welcome evidence showing that NPF4 represents a step forward in this area. However, we are concerned by evidence from stakeholders that there is less success in achieving integrated decision-making in those other areas. We recommend that in its forthcoming review of review of CAFS2 the Scottish Government prioritise exploring further opportunities to "mainstream" air quality considerations across all relevant policy-making. We also request further details from the Scottish Government on the development and publication of the new agricultural pollution code of conduct highlighted to us in evidence.

70. We have significant concerns about acute workforce challenges at a local authority level, in relation to planning and environmental health professions. A shortage in staffing in these departments will not enable delivery of the improvements in air quality which are set out in CAFS2. In relation to the planning profession, we note that the Scottish Government provided a recent update in its response to our report on the role of local government and its cross-sectoral partners in financing and delivering a net-zero Scotland. We ask the Scottish Government to outline how it proposes to work with others to increase uptake for qualifications and roles within the environmental health profession.

Transport

71. CAFS2 sets out ambitions for the development of a 'sustainable transport hierarchy' and for reducing vehicle emissions by encouraging a modal shift away from the private car towards more sustainable forms of transport.^{lxvii}

72. We heard from local authority representatives about how they are showing leadership in their fleet renewal programmes. The City of Edinburgh Council said they have an electric 15-tonne mechanical street sweeper which entered operation in 2020, which is the first of its type in Scotland.^{lxviii} Fife Council said it has been rolling out its 'Eco Stars Scheme' to help fleet operators improve efficiency, reduce fuel consumption and reduce emissions by providing recognition, guidance and advice on best practice.^{lxix} CPT Scotland told us that progress has also been made in reducing emissions on bus services through a programme of fleet renewal and

^{lxvi} Net Zero, Energy and Transport Committee. *Official Report, 18 April 2023*, col 11.

^{lxvii} Scottish Government (2021). *Cleaner Air for Scotland 2 - Towards a Better Place for Everyone*, p66-79.

joint working between industry and the Scottish Government.^{lxx}

73. However, stakeholders said that there has also been limited progress in delivering a significant reduction in car usage.^{lxxi} The Climate Change Committee has said that the Scottish Government is "falling behind" in its plans to decarbonise transport, noticeably in relation to reducing car kilometres by 20% by the year 2030.^{lxxii}
74. Some stakeholders cautioned against transport policy being over-reliant on technological solutions as a means to improve air quality.^{lxxiii} They said that whilst low emissions vehicles meant fewer harmful fumes, such as nitrogen dioxide, from exhausts, they did not solve the problem of particulate pollution from congestion or tyre and brake wears. They were clear that any successful strategy must also promote active travel and the use of public transport, and that this must also include measures that would reduce the convenience and attractiveness of car journeys.^{lxxiv}
75. We heard specific concerns from CPT Scotland in relation to problems with the current bus infrastructure. They said the Scottish Government had launched the Bus Partnership Fund with the aim of giving greater priority to travel by bus and make it more attractive to passengers, which would in turn reduce city centre congestion.^{lxxv} However, CPT Scotland told us the current process for accessing the funding was overly burdensome, leading to low levels of investment, with only around £25 million of the £500 million allocated to it having so far been spent.^{lxxvi}

76. We support CAFS2's key message concerning transport: to decarbonise vehicles and facilitate a modal shift towards sustainable forms of transport. The Scottish Government has so far had difficulty keeping pace with its own ambitious targets in this area, for instance in relation to reductions in car kilometres. This is not a matter the Committee had the opportunity to explore in depth during this limited period of scrutiny but it is an issue we expect to return to, for instance in our

lxxviii [The City of Edinburgh Council](#). Written submission, paragraph 15.

lxxix [Fife Council](#). Written submission, paragraph 18.

lxx Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 7 and written submission from [CPT Scotland](#).

lxxi Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 5, 11, 12 and written submissions from [Living Streets Scotland](#), [ERCS](#), [Sustrans Scotland](#).

lxxii Climate Change Committee (2022). [Progress in reducing emissions in Scotland 2022 - Report to Parliament](#), p12.

lxxiii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 4 and written submissions from [Sustrans Scotland](#), [Living Streets Scotland](#) and [Dr Heather Price](#).

lxxiv Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 19 and written submissions from [CPT Scotland](#), [Asthma + Lung UK Scotland](#), [Sustrans Scotland](#), [Living Streets Scotland](#), [Professor Jill Belch](#) and [Dr Heather Price](#).

lxxv Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 6 and written submission from [CPT Scotland](#).

lxxvi Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 11-12.

future budget scrutiny work.

77. Encouraging more people to use buses in built-up areas, in place of cars, will be an important element of ensuring the aims of CAPFS2 are met. It is concerning to note evidence of the low take-up of funding potentially available from the Bus Improvement Fund. We recommend that the Scottish Government review the Bus Partnership Fund to ascertain what are the barriers to take-up.

Low Emissions Zones and other local measures

78. In 2018, Scotland's first Low Emission Zone was introduced in Glasgow for local bus services only. The scope of Glasgow's LEZ will be extended in June 2023 to include enforcement of other vehicles. LEZs have now also been formally introduced in Aberdeen, Dundee and Edinburgh with enforcement coming into effect in 2024.
79. Stakeholders welcomed the introduction of LEZs in Scotland's four biggest cities as an important step in the right direction for reducing air pollution in Scotland's urban spaces.^{lxxvii} However, they were clear that the introduction of LEZs was not a 'silver bullet' in tackling air pollution.^{lxxviii} In particular, there were areas outside the four main cities with bad air quality and where new LEZs were unlikely to provide a solution. Stakeholders again also underlined that, while LEZs may help reduce pollutants from exhausts, they did not solve the problem of particulate matter from tyres and brakes.
80. Stakeholders instead said that, as well as bringing in LEZs, we need a wider package of available measures at local authority level.^{lxxix} They said these could include—
- An expedited roll-out of 20 mph limits on urban streets;
 - Measures such as designation of 'park and stride' areas beside schools to address idling problems;
 - Bus-only low traffic zones;
 - Implementation of air purifiers;
 - Active travel measures;
 - Reforms to spatial planning; and
 - New approaches to parking in city centres.
81. Stakeholders also said that the introduction of LEZs must go hand-in-hand with better public transport, not only in the four relevant cities but to support people

^{lxxvii} Written submissions from [ERCS](#), [Sustrans Scotland](#), [Asthma + Lung UK Scotland](#), [SEPA](#) and [Dr Heather Price](#).

^{lxxviii} Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 4 and written submissions from [Living Streets Scotland](#), [Professor Jill Belch](#), [The Royal College of Physicians of Edinburgh](#), [Sustrans Scotland](#), [Asthma + Lung UK Scotland](#), and [Dr Heather Price](#).

^{lxxix} Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 4 and written submissions from [Living Streets Scotland](#), [Professor Jill Belch](#), [The Royal College of Physicians of Edinburgh](#), [Sustrans Scotland](#), [Asthma + Lung UK Scotland](#), and [Dr Heather Price](#).

travelling into the cities from outside, with non-LEZ- compliant vehicles. Scottish Government officials told us that neighbouring local authorities were being offered funding for new infrastructure, such as signage, to help them prepare for LEZ introduction.^{lxxx}

82. The introduction of LEZs in Scotland's four biggest cities is a significant development in tackling air pollution. However, their introduction must go hand in hand with a wider package of interventions to combat air pollution. A "carrot and stick" approach (especially through improved public transport) is also needed to ensure they have local support, and are not seen as a "punitive" measure. We ask the Scottish Government to outline how it will support *all* local authorities to find bespoke transport-based air quality solutions in their more urbanised areas.

83. Improvements to public transport links between city centres and rural and suburban communities present a crucial component in the overall effectiveness of LEZs. There remain questions about the current public transport infrastructure in rural and semi-rural local authority areas which need to be addressed. We call on the Scottish Government to work with local authorities and transport partnerships in rural areas of Scotland to identify what further support they require to ensure readiness for launch of LEZs.

Best practice on air quality

International best practice

84. When looking for solutions to support further reductions in air pollution, Scotland can learn from other cities and countries about best practice on interventions for tackling the problem.
85. Evidence to the Committee noted that a number of cities globally were pursuing similar actions to Scotland in terms of the implementation of their own version of LEZs. However, each case study revealed interesting nuances for how other countries were viewing policy as a tool for tackling air quality. A few examples which were mentioned are—
- **London** - Introduced an Ultra Low Emissions Zone for the inner city in 2019. The ULEZ operates a congestion charge model meaning vehicles which do not comply with the emissions standards for the ULEZ and isn't exempt is required to pay a daily fee to be able to drive inside the zone.^{lxxxix}
 - **Lyon, France** - Limits are imposed on the number of cars allowed on the roads on days of peak pollution, with only vehicles meeting certain emission levels are allowed on the roads and speed limits reduced by 20 km/h. Reductions to public transport fares are introduced to accommodate for additional commuters.^{lxxxii}
 - **Sao Paulo, Brazil** - Introduced a curfew system by which car usage in the city is prohibited based on the last number of a license plate. For each pair of numbers, a weekday is prohibited.^{lxxxiii}
 - **Madrid, Spain** - Implemented a low emissions zone in 2018 which has more recently been accompanied by additional measures such as the creation of pedestrian zone in addition to investment in public 2 zero emission main lines and a new bus fleet. The city has also created discounted parking fees for green vehicles.^{lxxxiv}
86. We also received a number of examples of initiatives supporting the development of community action to tackle air pollution. Dr Heather Price and Dr Gary Fuller both noted the work being done through The Breathe London Community Programme which allows for community groups to bid for measurement devices to deploy in their local areas to monitor changes in pollutant levels.^{lxxxv} The programme aims to engage with local communities to encourage interest in air quality and to empower them to monitor air pollution in their local area. Dr Gary Fuller said—

^{lxxxix} Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 16 and 17.

^{lxxxii} [Sustrans Scotland](#). Written submission, paragraph 26.

^{lxxxiii} [Sustrans Scotland](#). Written submission, paragraph 27.

^{lxxxiv} [Sustrans Scotland](#). Written submission, paragraph 28.

- ” There may be an opportunity to embrace more citizen science perspectives—not to expect people to produce really accurate data, but to help them to produce data that describes their local problems, to enable them to get solutions that fit that and to empower communities to be able to take their concerns to their local council, SEPA or Transport Scotland.

87. Stakeholders provided a number of examples of cities and countries performing good practice in terms of air quality, including citizen-led or citizen-assisted projects. These all provide real life case studies from which Scotland can potentially learn. We ask the Scottish Government to carefully consider examples from across the UK and internationally as part of its upcoming review of CAFS2.

World Health Organization (WHO) Guidelines 2021

88. Scotland has relatively stringent air quality standards, with many of our statutory thresholds below those in the UK and EU. The Cabinet Secretary highlighted that Scotland was the first country in Europe to embed 2005 WHO guidelines on particulate matter into domestic statute as a sign of Scotland's global leadership on air quality.^{lxxxvi}
89. Stakeholders said this overall approach has partially contributed to improvements being experienced in air quality in recent years in Scotland.^{lxxxvii} Specific reference was made by to [research by Friends of the Earth Scotland](#) which indicated that 2022 was the first year that Scotland did not breach legal air quality limits. The Cabinet Secretary also cited recent data from SEPA's monitoring network showing that legal air quality objectives have been met for the first time outwith lockdown years.^{lxxxviii}
90. In 2021, [WHO released new guidelines](#) in relation to air quality limits. This has meant recommended air pollutant thresholds are now significantly lower than targets in Scotland. For example, Scotland's annual mean nitrogen dioxide objective is of 40µg/m³; WHO guidelines are now 10µg/m³.^{lxxxix} The Cabinet Secretary indicated that the Scottish Government would consider the updated WHO guidelines^{xc} as part of its review of CAFS2.^{xcii} She told us that CAFS2 was designed with review mechanisms in place to allow the strategy to keep pace with new evidence and best practice.^{xcii}

^{lxxxv} Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 23 and written submissions from [Dr Gary Fuller](#) and [Dr Heather Price](#).

^{lxxxvi} Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 16.

^{lxxxvii} Written submissions from [Royal College of Physicians of Edinburgh](#), [RTPI Scotland](#) and [Asthma + Lung UK Scotland](#).

^{lxxxviii} Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 15 and written submission from [SEPA](#).

^{lxxxix} WHO (2021). [WHO global air quality guidelines: particulate matter \(PM2.5 and PM10\)](#),

91. There were some stakeholders who wanted the Scottish Government to legislate to align Scottish air quality standards with new instructions from the WHO.^{xciii} However, others said that this would require quite radical societal change, which made meeting those revised objectives unrealistic in the short term.
^{xciv}Representatives of Glasgow City Council and Fife Council talked, for instance, of the work that this would require to decarbonise transport or domestic heating.^{xcv}
92. Stakeholders, instead, tended to support a programme of continuous improvement to meet the 2021 WHO guidelines.^{xcvi} It was argued that a continuous improvement agenda corresponded with a growing evidence base showing that impacts on health as a result of air pollution were experienced at low levels. Dr Gary Fuller said—
- ” Rather than focusing on setting new limits, a good policy response would be to map out the possible pathways to attaining them. We are just not doing that at the moment. Internationally, people have just seen the WHO’s document and are saying, “Oh, there it is,” but the rational response is to ask what sources we will have to bring under control that we do not already, to prepare those pathways and to think about how to do that.^{xcvii}
93. ESS also indicated that this seemed a more proportionate approach.^{xcviii} We heard calls for the Scottish Government to move away from focussing primarily on ensuring compliance with minimum legal standards on air pollutants and instead set out how it intends to reduce levels as far as possible.^{xcix}

94. The Committee supports the aspiration of adopting the 2021 WHO guidelines on air pollutants as a statutory measures, but accepts that immediate adoption presents major practical challenges. We urge the Scottish Government to work with local authorities and others to map out pathways for achieving these ambitious targets. We also ask the Scottish Government to consider enshrining a

ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, p115.

xc

xcii Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 30.

xciii Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 25.

xciiii Written submissions from [Sustrans Scotland](#) and [ERCS](#).

xcv Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 8 and 9.

xcvi Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 27, 28 and 31.

xcvii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 8 and 9.

xcviii Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), col 8.

xcix Net Zero, Energy and Transport Committee. [Official Report, 25 April 2023](#), col 12.

xcix Net Zero, Energy and Transport Committee. [Official Report, 18 April 2023](#), cols 8, 9 and written submissions from [ESS](#), [Professor Jill Belch](#), [Dr Heather Price](#) and [Royal College of Physicians of Edinburgh](#).

continuous improvement approach into air quality policy, as part of its upcoming review of CAFS2.

Annexe A - Correspondence from Mark Roberts, Chief Executive of Environmental Standards Scotland

19 April 2023

Dear Convener

NET ZERO, ENERGY AND TRANSPORT COMMITTEE, 25 APRIL 2023

Environmental Standards Scotland (ESS) received a copy of the Scottish Government's improvement plan which sets out how it intends to implement the six recommendations set out in ESS' air quality improvement report. ESS is pleased that the Scottish Government welcomes the report, has accepted all of the recommendations and is committed to delivering them.

ESS' investigation followed a European Court of Justice ruling in March 2021 that, across the UK, exceedances of statutory air quality limit values in respect of nitrogen dioxide had remained 'systemic and persistent' between 2010 and 2017. ESS' investigation continued work which had already been undertaken by the European Commission prior to the UK's withdrawal from the European Union.

ESS' recommendations were intended to improve the efficiency and effectiveness of how air quality improvement is achieved. While improvements in air quality have been achieved, potential effects on public health remain. If the Scottish Government decides to follow the European Union's plans to reduce pollutant limit values further, it is important that the system of air quality management is as efficient and effective as possible.

Having considered the content of the Scottish Government's improvement plan, I have set out below ESS' view on the Scottish Government's response to the recommendations made within ESS' improvement report.

Recommendation 1 - Introduce the requirement for local authorities to complete and publish AQAPs within a specified target date following the declaration of an AQMA, which must be within as short a time as possible.

ESS welcomes the inclusion within the improvement plan of a more clearly defined requirement for Air Quality Action Plans (AQAPs) to be published within as short a time as possible, and no later than twelve months from Air Quality Management Area (AQMA) designation. On reviewing the recently updated Local Air Quality Management (LAQM) policy guidance^[1] (published in March 2023) it is apparent that a strengthening in this connection has been incorporated into Section 6.1 of the guidance where it states '*once a local authority has declared an AQMA, under Section 84 of the [Environment Act 1995] it must then prepare and implement an air quality action plan within the shortest possible time and no later than 12 months post declaration*'.

Recommendation 2 - Introduce the requirement for local authorities to achieve AQMA and AQAP objectives within a specified target date, which must be within as short a time as possible.

ESS' improvement report set out the current position that local authorities are not legally obliged to meet the air quality objectives within AQMAs. The key point behind this recommendation was that local authorities must set a specified target date for when compliance **must be achieved**.

The improvement plan proposes a strengthening of the LAQM policy guidance to include:

- specified target dates for completing each action plan measure;
- well defined milestones towards completion;
- a clearer requirement for assessing the estimated reduction in pollutant concentrations contributed by each AQAP measure; and
- AQAP measures should be delivered within as short a time as possible, and that the action plan itself should have a timescale for completion and for revocation of the AQMA. The timescale for revocation should be 'within as short a time as possible' which should be taken to mean the date by which the longest term AQAP measure is expected to be completed.

ESS considers that the above actions constitute a significant strengthening of the current system and notes that they have been incorporated within sections 3.18, 5.6 and section 6 of the revised LAQM policy guidance.

Furthermore, the inclusion of the explicit requirement for joint working between local authorities and Transport Scotland and SEPA proposed in the plan are also welcomed by ESS and we see that these have been incorporated into the revised LAQM policy guidance (section 6.15) where the local authority is expected to take the lead role.

Recommendation 3 - Introduce the requirement for local authorities to review and, where necessary, update AQAPs. The targets for any such review and update must be consistent with the principle of as short a time as possible.

ESS found that the time periods associated with the preparation, review, and update of AQAPs needed to be tightened to ensure a consistent approach is adopted and that air quality limit values remain a priority for local authorities. Accordingly, ESS welcomes the inclusion within the plan, and in sections 4.8 and 6.8 of the revised LAQM policy guidance, that current AQAPs (whether published or in draft) must be reviewed and, where necessary, updated within 12 months of the revised policy guidance being published.

The improvement plan considers that a five year review cycle is appropriate as it aligns with the time period for the lifespans of the Government's Cleaner Air for Scotland strategies. In ESS' view, the proposed five year cycle is too long and risks compromising the principle that compliance should be achieved in as short a time as possible.

Recommendation 4 - Identify or introduce a monitoring body with the remit to look at the system of air quality monitoring and compliance holistically (including the monitoring of the implementation and effectiveness of LEZs). It is critical that this body should be able to move quickly where air quality does not meet legal requirements, consistent with the principle of achieving compliance within the shortest time possible, and thus it should have the requisite power to direct action when deemed necessary.

The improvement plan considers that this recommendation can be satisfied through SEPA

using the existing powers available to it under section 85 of the Environment Act 1995, should a local authority not be undertaking its statutory duties in relation to air quality. In particular that the LAQM policy guidance will be strengthened to include an assumption that these powers should be used routinely once the series of warning levels issued to local authorities when specified deadlines are missed have been exhausted rather than on a case by case basis.

There are a number of key actions which local authorities must take as part of their LAQM responsibilities (such as monitoring, declaration, planning, execution and reporting), all of which interact with each other. The purpose of this recommendation was to identify or introduce a body which has the remit to consider **all** aspects of the discharge of these responsibilities, with the ability to comment, report or direct action in all of these areas where necessary. The recommendation, if implemented appropriately, will ensure that close and ongoing scrutiny is given to the range of work undertaken to improve air quality (and therefore public health) by local authorities, so that it is conducted as efficiently and effectively as possible. Accordingly, ESS considers that the role of the monitoring body should go beyond mere administrative compliance.

The revised LAQM policy guidance (section 2.8) sets out the sequencing of when SEPA will utilise its enforcement powers. However, this relates only to the submission of Annual Progress Reports (APRs) and the completion of AQAPs. This appears to follow the previous system as described at page 27 of ESS' improvement report and neither the improvement plan or the revised policy guidance touch upon the other duties which ESS considers the monitoring body should have, which is the ability to comment, report or direct action in all of areas of local authorities' LAQM responsibilities.

In light of this, ESS is unconvinced that the changes proposed in the improvement plan and in the revised LAQM policy guidance are sufficiently clear about what will be monitored and whether the existing Section 85 power is capable of fully implementing the recommendation as intended.

Recommendation 5 - That the Scottish Government ensures that its ongoing review of data provision scrutinises the protocols for the siting of monitoring sites, with a view to establishing whether they provide a sufficiently comprehensive picture of the state of air quality, particularly in and around our major cities. Specific focus should be placed on areas where vulnerable groups are present, such as schools and hospitals.

This recommendation relates to the question of whether the current monitoring system is robust enough to provide a sufficiently comprehensive picture of the state of air quality in our major cities, especially around areas where vulnerable groups are present. During our investigation, ESS was aware of the Scottish Government's ongoing review of data provision in this connection and thus considered it appropriate for the review to take forward this recommendation. ESS is not clear from the improvement plan whether the Scottish Government has concluded this review, or if it has, what its conclusions are.

Recommendation 6 - That the Scottish Government revises CAFS2 to include specific and measurable timescales (consistent with the overarching duty to achieve compliance within the shortest time possible) for when compliance with NO2 limit values should be achieved.

ESS welcomes the Government's acceptance of this recommendation. It notes the establishment of general timescales for actions within CAFS2. ESS will monitor the

Scottish Government's progress against these timescales.

Yours sincerely

Mark Roberts

Chief Executive

