

Cleaner Air for Scotland

The Road to a Healthier Future

2017/18 Progress Report

August 2018

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1. Ministerial Foreword

This report outlines the progress made in 2017/18 to deliver 'Cleaner Air for Scotland – The Road to a Healthier Future', Scotland's first separate air quality strategy. Cleaner Air for Scotland was published in November 2015 with an overarching vision that Scotland's air quality will be the best in Europe. Over the last two years, we have made significant progress in starting to deliver this vision through the 40 key actions contained in the strategy.

Key achievements to date include:

- Implementation of a refocused Local Air Quality Management system (LP1).
- Establishing and expanding the monitoring network for PM_{2.5} (LP2).
- Adopting World Health Organisation values for PM_{2.5} into legislation (H1).
- Producing revised and updated Scottish action plans to demonstrate how compliance with the EU Ambient Air Quality Directive will be achieved (LP3).
- Ongoing development of detailed air quality models for the four major Scottish cities associated with the highest levels of poor air quality, to support Low Emission Zone implementation (LP7).
- Delivery of the National Walking Strategy Action Plan (T2).
- Completed evaluation of the former Bus Investment Fund (T5).
- Review of the Switched on Scotland Roadmap for electric vehicles, and publication of a subsequent action plan (T9).
- Report on "Synergies and Tensions between Climate Change and Air Quality Actions" produced to inform development of the new Scottish Climate Change Plan (CC1).
- Publication of updated guidance on air quality and planning (P3) and biomass (CC3).

Delivery of some actions has been reprogrammed, mainly as a result of significant shifts to the wider policy environment around air quality, including the ongoing reviews of the National Transport Strategy and the Scottish planning system. Where this is the case, the plan remains to deliver these within the initial five year lifetime of the strategy. Further detail can be found in the main body of this annual report.

Collaborative working between the Scottish Government and a wide range of partner organisations, overseen by the Cleaner Air for Scotland Governance Group, has been the basis of our progress to date. We have welcomed two new members onto the Governance Group - the British Heart Foundation and Professor Campbell Gemmell – who will bring a fresh perspective and some important areas of expertise.

We have also announced significant additional funding which will support the work of Cleaner Air for Scotland. £10.8 million has been provided to support the introduction of Low Emission Zones during 2018/19 along with £0.75 million to support local authorities with Air Quality Management Areas to develop transport-based actions.

We continue to make progress towards securing full compliance with EU ambient air quality Directive requirements by 2020. Current projections indicate some limited areas of non-compliance in Glasgow by this date, which we are working to address.

Following completion of the Scottish Parliament's Environment, Climate Change and Land Reform Committee's inquiry into air quality, we have committed to a full review of Cleaner Air for Scotland by 2020. This will ensure that we remain on target to fully deliver the current actions and help to identify priorities for future work.

Although we have made a good start, we cannot afford to be complacent and recognise that much more needs to be done. There are many challenges still to come as we move towards putting in place Scotland's first Low Emission Zone by the end of 2018 whilst continuing to progress all the other actions in the Cleaner Air for Scotland strategy.

With a concerted effort to work together, we can continue to realise the vision of Cleaner Air for Scotland, helping to create and maintain a strong, healthy and fair society, with clean air for all.



A handwritten signature in black ink, appearing to read 'R. Cunningham'.

**Roseanna Cunningham MSP,
Cabinet Secretary for
Environment, Climate
Change & Land Reform**



A handwritten signature in black ink, appearing to read 'Michael Matheson'.

**Michael Matheson MSP,
Cabinet Secretary for
Transport, Infrastructure
and Connectivity**

2. Introduction and Background

Despite progressively reducing emissions of air pollutants over recent years in Scotland, poor air quality still harms human health and the environment. Ill health caused by air pollution is also a health inequalities issue; it affects the more vulnerable members of the population disproportionately (people who are very young, the elderly, those with pre-existing medical conditions, and those living in urban areas and deprived circumstances). There are currently 38 Air Quality Management Areas (AQMAs) in Scotland. All but two of these are due to emissions from road traffic. One of the key overarching objectives of Cleaner Air for Scotland is to see significant progress towards revocation of all AQMAs by 2020.

Cleaner air provides multiple benefits, and the responsibility for better air quality rests with many groups, including the general public, national and local government and businesses. There are also opportunities to generate efficiencies and cost savings by linking air quality to related policy interventions, such as climate change adaptation and mitigation, and noise reduction.

[Cleaner Air for Scotland – The Road to a Healthier Future \(CAFS\)](#) is a national cross government strategy that sets out how the Scottish Government and its partner organisations propose to reduce air pollution further to protect human health and fulfil Scotland's legal responsibilities as soon as possible. CAFS seeks to progress a series of actions across six main policy areas, as shown in Figure 1 below, including a number of important new initiatives as follows.

- A National Modelling Framework (NMF).
- A National Low Emission Framework (NLEF).
- Adoption of World Health Organization (WHO) guideline values for fine particulate matter (PM_{2.5}) in Scottish legislation.
- Preliminary work towards a national air quality awareness campaign.

Delivery of CAFS is a commitment of the [Scottish Government's Plan for Scotland 2017 -178](#). Progress is supported by the CAFS Governance Group, and actions are managed by specific working groups and sub-groups. This second annual report outlines the current range of work carried out across the main policy areas to deliver CAFS commitments during 2017 and the first quarter of 2018.

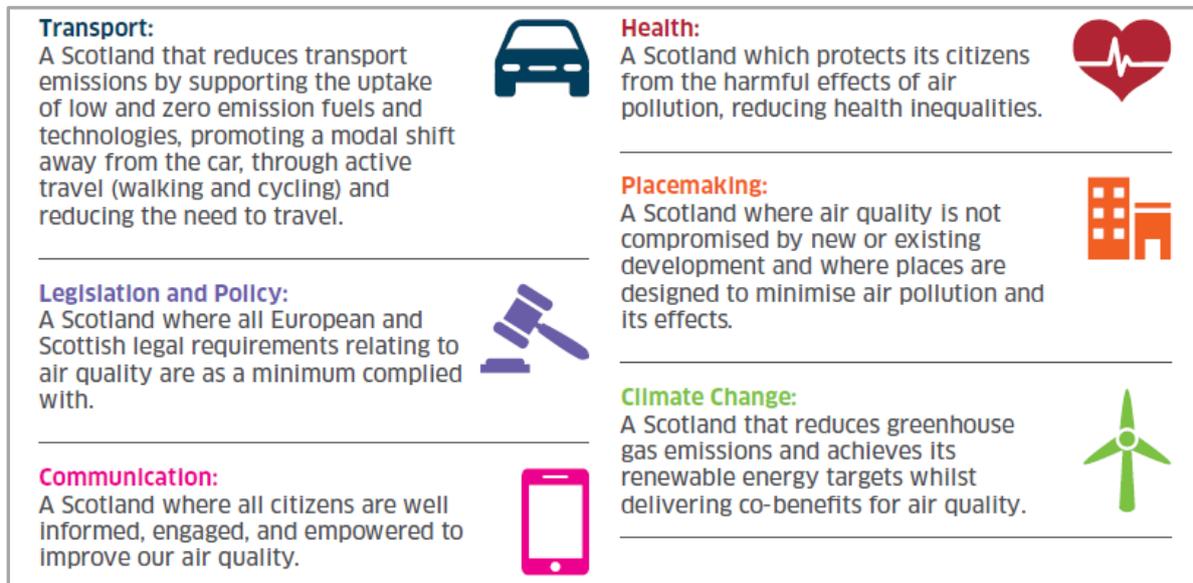


Figure 1: The six key themes of the Cleaner Air for Scotland (CAFS) Strategy

3. Progress across CAFS policy areas

Key to acronyms in the table:

AQAP – Air Quality Action Plan
AQMA – Air Quality Management Area
CAFS – Cleaner Air for Scotland
CAFS GG – Cleaner Air for Scotland Governance Group
EPS - Environmental Protection Scotland
FCS – Forestry Commission Scotland
HPS – Health Protection Scotland
JHPPs – Joint Health Protection Plans
LA – Local Authorities
LAQM – Local Air Quality Management
LEZ – Low Emission Zone
NHSBs – National Health Service Boards
NLEF – National Low Emission Framework
PfG – Programme for Government
RTPs – Regional Transport Partnerships
SAQI – Scottish Air Quality Indicator
SEPA – Scottish Environment Protection Agency
SG – Scottish Government
SEAP – Sustainable Energy Action Plan
TS – Transport Scotland
WHO – World Health Organisation

Where actions contain two or more distinct elements at different stages of completion, the action status has been split to reflect this. Where necessary, revised periods for completion have been provided, but will be kept under review, as in some cases delivery of these actions is dependent on ongoing changes to Government policy.

3.1 Communications

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion
Communication	Advice and information to key audiences on air quality					
	C1	A Scottish Air Quality Indicator will be developed which will assist in assessing compliance with air quality legislation and delivery of CAFS objectives	2016/17	SG and contractor	Easily understood environmental indicators are essential to communicate and report effectively on complex environmental issues, such as air quality. The Scottish Air Quality Indicator (SAQI) project was commissioned by the Scottish Government in 2016. The contract was awarded to a consortium led by the Institute of Occupational Medicine (IOM), supported by the Centre for Ecology and Hydrology and the University of Glasgow. The final report was received from the contractors in September 2017. The outcomes from the project provide a sound basis for developing the SAQI, but the report identified several issues which require further consideration before the indicator can be finalised. A follow-up project is currently being scoped out, which will be undertaken by the University of Glasgow. It is envisaged that work on this follow-up project will commence in the second half of 2018 and be completed in the first half of 2019.	Significant progress Completion expected in 2018/19

C2	CAFS will support the ongoing Greener Scotland communication campaigns, encouraging individuals to use the car less to improve their health and their local environment	2016/17	SG/TS	<p>The CAFS Communications subgroup, chaired by Environmental Protection Scotland (EPS) has established a revised terms of reference, with the emphasis on working with communications professionals from the CAFS delivery organisations, including representatives from Greener Scotland, to provide a quarterly forum in which they and wider stakeholders involved in air quality can share and develop communications opportunities.</p> <p>The group will draw on key messages produced as part of the Air Pollution and Health Impacts project, and continue to support the ongoing Greener Scotland communication campaigns. This will further delivery of the CAFS objectives and raise awareness and understanding of air quality issues through events such as Clean Air Day, which also aligns with Greener Scotland campaign messages (see C3).</p>	In progress Completion expected in 2018/19
C3	A national air quality public awareness campaign will be developed	2015-2020	HPS/SG/TS	EPS is coordinating Clean Air Day (CAD) Scotland on 21 June 2018, on behalf of the Scottish Government and the CAFS GG. Building on last year's national event, key messages continue the focus on outdoor air quality and encouraging people to switch from their cars to public/active travel and/or encouraging motorists to consider buying or hiring electric vehicles. EPS is working closely with communications professionals in the CAFS delivery organisations, to ensure CAD utilises any fresh	Significant progress Ongoing delivery

					<p>information, campaigns or health updates and that CAD messages are conveyed using the correct links via their social media channels.</p> <p>EPS is also working with the 32 local authorities in Scotland to organise a range of activities to promote CAD with the general public. Local authority-led events include a demonstration of electric vehicles and bicycles in George Square in Glasgow, together with awareness-raising for the city's LEZ plans; road closures in Edinburgh to promote CAD and the city's placemaking policies; CAD promotions in hospitals and NHS administrative offices; promotion of LA no-idling campaigns, and a range of other activities across Scotland. A YouGov survey on public attitudes to air quality is also being compiled. EPS will submit a post-event evaluation report to the Scottish Government. CAD supports the delivery of the CAFS commitment to ensure that the public are well informed, engaged, and empowered to improve air quality.</p> <p>SEPA continues to support the national air quality teaching package (www.learnaboutair.com). This teaches pupils about air quality, the impact it can have and how they can influence it, as well as ensuring this message is fed back into the pupil's home environment, thus reaching the wider population. A proposal is being taken forward to replace the current free sensors loaned to schools</p>	
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				<p>as part of the teaching resource, and to increase the scope of the teaching material. It is anticipated that these improvements to the package will be delivered over the next 12 months, depending on funding availability.</p> <p>SEPA is also working in partnership with others to develop a mobile Cleaner Air for Scotland exhibit. This will complement the existing static exhibit located at the Glasgow Science Centre, launched in January 2017. The mobile exhibit will incorporate a pilot air quality technical version of the Place Standard tool (see P1) to capture the general public's perception of air quality issues at each location. The initial funding will allow the exhibit to be located in the four cities that are currently undertaking LEZ assessments. Beyond this, it is intended that the mobile exhibit will be made available for each of the LAs that have Air Quality Management Areas (AQMAs) to promote local improvement measures.</p> <p>Whilst all of these activities continue to raise public awareness of air quality as an issue, a priority for the CAFS Communications sub group in the coming year will be to draw these strands together into a more comprehensive air quality campaign for Scotland.</p>	
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3.2 Legislation and Policy

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion
Legislation and Policy	Local and national air quality management					
	LP1	A refocused Local Air Quality Management system will be implemented.	2016-2020	SG	<p>In 2016, as part of the Cleaner Air for Scotland (CAFS) Strategy, the Scottish Government launched a revised system for implementing Local Air Quality Management (LAQM) which included the introduction of Annual Progress Reports (APRs) and a change to reporting timescales to streamline the reporting process. The new single APR has led to a significant improvement in punctuality of report submissions by local authorities. This has been hugely beneficial to Scottish Government, SEPA and the local authorities and is a good example of collaborative working under CAFS.</p> <p>No further changes to the LAQM system have been made during this CAFS reporting period, other than an update to the LAQM annual progress report template to allow local authorities to report on CAFS-related actions. Current ongoing work includes integration of the revised National Low Emission Framework (NLEF) into</p>	<p>Significant progress</p> <p>Ongoing delivery</p>

				LAQM (see LP10 for further detail). SEPA is also contacting all local authorities with Air Quality Management Areas (AQMAs) to request an update and/or submission of final Air Quality Action Plans (AQAPs), and an assessment of current AQMA status with a view to considering whether any AQMA revocations may be appropriate, in line with one of the key overarching objectives of Cleaner Air for Scotland to see significant progress towards revocation of all AQMAs by 2020.	
LP2	A PM2.5 monitoring network will be established.	2016-2018	SG	The PM2.5 monitoring network now contains 44 sites. Funding for an additional 10 sites has been provided in 2018/19.	Complete
LP3	Revised and updated Scottish action plans will be produced to demonstrate how compliance with the EU Ambient Air Quality Directive will be achieved.	2015-2020	SG	The High Court judgement on the second Client Earth Judicial Review in November 2016 required the UK Government to submit a revised UK air quality action plan and associated zonal plans to the European Commission by the end of July 2017. For the purposes of assessing compliance with Directive requirements, the UK is divided into 43 zones. A detailed plan for each currently non-compliant zone has been prepared to complement the overall UK plan. Four of the currently non-compliant zones are in Scotland – the Edinburgh Urban Area, the Glasgow Urban Area, Central Scotland and North East Scotland. The revised UK plans and zonal plans were published and submitted on 24 July 2017.	Complete

				<p>The Scottish Government worked closely with the other UK administrations to develop the revised UK plan. The plan confirms that Cleaner Air for Scotland is the Scottish Government's key approach for securing compliance with the relevant Directives and also outlines the proposed approach for establishing Scotland's first Low Emission Zone (LEZ) by the end of 2018 and subsequent LEZs, and other policy interventions to improve local air quality up to 2020 and beyond.</p> <p>The latest modelling undertaken to inform the plan indicates that Scotland will be compliant with EU air quality requirements by 2020, with the exception of a small number of roads in the Glasgow Urban Area zone. These roads include the former M8 'missing link' between Baillieston and Newhouse, which has now been upgraded to motorway. For this modelling exercise the road was assessed as an A road, however separate modelling undertaken previously indicated that it would be compliant once the upgrade was complete. Further monitoring and modelling will be carried out to confirm that this is the case. This would leave two road stretches within the Glasgow city area as non-compliant. The Scottish Government, Transport Scotland and Glasgow City Council will work together to address this issue, with the aim of meeting the Cleaner Air for</p>	
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				<p>Scotland commitment of full compliance with EU Directives by 2020.</p> <p>Scottish local authorities made an important contribution to development of the zonal plans. These plans summarise the wide range of measures being implemented by authorities as part of their air quality action plans, which complement actions being undertaken by central government and are also crucial to one of the overall aims of Cleaner Air for Scotland, which is to make significant progress in reducing the number of Air Quality Management Areas by 2020.</p> <p>A response to the revised UK action plans submitted in July 2017 is still awaited from the European Commission. A further update will be given in the 2018/19 CAFS progress report.</p>	
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National Modelling Framework (NMF) and National Low Emission Framework (NLEF)

<p>LP4</p>	<p>Design, develop and implement a two-level modelling system for regional and local scales to provide evidence for appraising and identifying potential transport and planning solutions to local air quality issues.</p>	<p>2015-2018¹ (local scale)</p>	<p>SG/TS/SE PA</p>	<p>SEPA has continued to develop the two-level modelling approach as set out within the National Modelling Framework (NMF) in CAFS. The original date for delivery of the first LEZ was bought forward by 2 years from 2020 to 2018 in the 2016 Programme for Government announcement. As a result it has been necessary to focus the NMF work for this reporting period on progressing the local models to a stage where they can be used to provide the evidence base for LEZ implementation, with some resulting slippage for the development of the regional model.</p> <p>Although there was some slippage with the peer review process for the NMF local/city model approach, this did not prohibit the development and refinement of the overall methodology and development of the models (see LP7). SEPA used this time to consult with the National Low Emission Framework (NLEF) group, refining the data collection and visualisation techniques. The peer review was finalised, and the main comments were incorporated within the final local/city model methodology which is now being used to gather evidence for the development of LEZ options - see LP7.</p>	<p>Significant progress</p> <p>Ongoing delivery</p>
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¹ The date for completion of actions LP4 and LP7 has been adjusted from 2017 to 2018 to reflect the date specified in the main body of the CAFS strategy (p.69), rather than that in the CAFS actions list (p.85).

		2015-2018 (regional scale)		SEPA has acquired the Dutch air quality modelling methodology that has been legally adopted as the national model for the Netherlands. This has formed the basis of the approach for the NMF regional model, which has been developed, but requires further work before rolling out more widely - see LP5.	In progress Completion of regional model expected in 2019
LP5	Evaluate the requirements of a regional model and then support its development during the first two years of implementing CAFS.	2016-2018	SG/TS/SEPA	<p>SEPA has continued to develop the regional air quality model during this reporting period, and has tested the performance of the Dutch model upon which it is based against Aberdeen and Glasgow using the detailed traffic data obtained through the NMF city model process. However there has been some slippage due to a lack of regional traffic data available to support the regional NMF air quality model, the need to review the current traffic models available and as a result of the necessary focus on progressing the local model development to support LEZ implementation.</p> <p>In order to continue with the development of the regional model, SEPA extracted the underlying traffic information from within the national noise maps, and will be approaching individual local authorities to investigate what further traffic data is available. However, the lack of good quality regional traffic information remains a major issue. SEPA is exploring ways to resolve this, and to develop a more robust data collection process in the future.</p>	In progress Completion expected in 2019

				In the meantime SEPA will continue to use the local city NMF model traffic data to inform the regional approach within each of the four cities, and aim to identify what traffic data is currently available from wider local authorities to support the regional model.	
LP6	Develop guidance and promote a support network for all practitioners involved in reviewing and assessing local impacts on air quality resulting from regional decision making.	2015-2017	SG/TS/SE PA	<p>A robust support network for the local NMF has been developed via the NMF and LEZ city delivery groups, and SEPA has taken on responsibility of providing assistance to other local authorities undertaking NLEF appraisals in the future, which will require a detailed local NMF model. SEPA and Transport Scotland continue to work closely with each of the cities developing LEZs to ensure a consistent approach has been taken nationally. Specific guidance on the use of the local NMF model is therefore not considered necessary.</p> <p>Guidance for the regional model will be developed once the regional air quality modelling approach has been fully implemented – see LP5.</p>	<p>In progress.</p> <p>Completion expected in 2019 for regional model guidance</p>
LP7	Undertake detailed modelling of all four major cities and associated adjoining spaces in Scotland, covering	2016-18²	SG/TS/SE PA	The four local NMF delivery groups have further progressed the development of detailed air quality models for Aberdeen, Dundee, Edinburgh and Glasgow, which continue to be reviewed and updated as required. Both Glasgow and Edinburgh have also set up LEZ Delivery Groups, but have maintained the NMF subgroups to	<p>Significant progress</p> <p>Ongoing delivery</p>

² The date for completion of actions LP4 and LP7 has been adjusted from 2017 to 2018 to reflect the date specified in the main body of the CAFS strategy (p.69), rather than that in the CAFS actions list (p.85).

	<p>areas associated with highest levels of poor air quality.</p>		<p>provide technical support and the evidence base for LEZ interventions, through source-apportionment of transport emissions resulting in poor air quality in the relevant areas.</p> <p><u>Glasgow</u> SEPA has continued to further refine the Glasgow air quality model, with Glasgow City Council providing a series of scenarios and areas for consideration to support the design of the Glasgow LEZ. The visualisation tools developed by SEPA for the Glasgow LEZ Delivery Group helped to facilitate discussion around appropriate actions including vehicle restriction schemes, based on the evidence provided by the model. These included restrictions on private vehicles and public transport within the city centre in relation to vehicle Euro standards.</p> <p>A proposal for the collection of additional traffic information was made to help inform the development of the city's traffic model. SEPA also held a meeting with the bus operators through the Confederation of Passenger Transport and have now begun to collect detailed bus information to provide more accurate vehicle classification in relation to individual routes and timetable frequencies within the proposed LEZ area and beyond.</p>	
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Edinburgh

Traffic data have now been processed for Edinburgh and the basic model parameters have been developed. Due to the location and spread of AQMAs in Edinburgh, the model build has been undertaken to cover the majority of the city. The initial model outputs are currently being tested against observed air quality data, after which traffic-related scenarios will be tested to provide the evidence base to support LEZ design.

Dundee

The NMF model parameters have been developed for Dundee, with the model extending beyond the city area. Traffic data for Dundee was collected during September 2017, and provided to SEPA in late December. The traffic data is currently being assessed and validated.

Aberdeen

The parameters for the Aberdeen city model have been extended beyond those used in the pilot project. Traffic data was collected during March 2017 and supplied to SEPA in June. After initial checks, further survey requirements were identified, and the final traffic surveys were completed by August 2017. The traffic data was uploaded to the visualisation tool for comparison with the previous data collected as part of the pilot project in 2012. Initial observations suggested that there had been some substantial changes in the traffic flows along the stretches of road next to the monitors during the intervening five

				<p>year period. Background maps suggested harbour emissions were a significant source within the city centre, therefore detailed model runs have also been carried out on individual ship scenarios within the vicinity of the harbour to ascertain the level of impact from berthed ships.</p>	
LP8	<p>Identify requirements and undertake data collection requirements for additional urban areas within three years of implementing CAFS.</p>	2016-2019	SG/TS/SE PA	<p>The identification of further cities and urban areas requiring detailed assessment and modelling within an NMF city model will be progressed once modelling of the initial four cities is complete. The identification of these areas will be informed through the pre-appraisal process set out in NLEF (see LP10). Those local authorities that are required to progress through the NLEF appraisal will have the assistance of a local NMF model to ensure actions developed are proportionate and informed through robust local evidence.</p> <p>As such, additional areas will be identified by 2019, with data collection and a local NMF model complete by 2020, to support implementation of future LEZs by 2023, as per the Programme for Government commitment.</p>	<p>In progress</p> <p>Completion expected in 2019 /20</p>

LP9	Implement the national databases for traffic data collection and local modelling outputs associated with CAFS.	2015-2017 (local model outputs)	SG/TS/SE PA	<p>SEPA has continued to collate air quality and traffic data for each of the four local models and present the data in a range of visualisation tools for local authority practitioners, alongside the publically available enhanced data analysis applications previously developed which provide a visual interface for live and historic air quality datasets. The local air quality model applications are password protected for local authority and partner use alone, as these will relate to the development of appropriate actions and NLEF option appraisals.</p> <p>Using data collected from individual bus operators, SEPA is also in the process of developing operator-specific tools to enable them to consider improvement programmes in relation to vehicle Euro class, operation routes and frequency, to deliver the greatest air quality benefits on the most polluting routes. This approach will help to ensure successful delivery of the phased approach that has been proposed for Glasgow's LEZ.</p>	Complete for local modelling outputs
		2015-2017 (traffic data)		<p>A centralised approach to the collation of traffic data generated across Scotland will support the continued development and use of the NMF regional model. The National Transport Data System (NTDS), managed by Transport Scotland, became operational in July 2016 and is collating automatic traffic data from the Scottish trunk road network. A public facing NTDS website is currently being developed to facilitate open access to the data. Further work is underway identify the most appropriate way to support the collation of data from other sources, such as local authority traffic data collected as part of the NMF process.</p>	Completion of traffic data element expected in 2018/19

LP10	By April 2016, in further consultation with partner organisations, the NLEF criteria, tests, and processes will be developed, agreed, and finalised.	2015-2017	SG/TS/SE PA	An initial draft of the NLEF guidance was completed in April 2017. The document is currently being updated to take account of feedback on the initial draft from local authorities and SEPA to ensure integration with the existing LAQM regime, commitments in relation to the establishment of Low Emission Zones included in the Programme for Government (September 2017) and the outcome of the national consultation " Building Scotland's Low Emission Zones - A Consultation " (March 2018), all of which have resulted in delay to publication of the final guidance. The intention is that the NLEF guidance document will be published in October 2018 subject to completion of any statutory requirements.	In progress Completion of updated guidance expected in 2018/19
LP11	A standard appraisal process will be designed and implemented for assessing local air quality measures.	2015-2017	SG/TS/SE PA	See LP10	In progress Completion expected in 2018/19

LP12	Develop the software tools and associated guidance for the NLEF, including funding options and technical reports that will underpin the evidence on effectiveness of options.	2015/16	SG/TS/SE PA	See LP10	In progress Completion expected in 2018/19
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3.3 Health

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion
Health	Protection of human health					
	H1	World Health Organization guideline values for PM10 and PM2.5 will be included in legislation as Scottish objectives.	2016/17	SG	In April 2016, the Air Quality (Scotland) Amendment Regulations 2016 came into force. These regulations introduced into Scottish legislation the World Health Organisation (WHO) guideline value for PM _{2.5} of 10 µg/m ³ as an annual average to be met by 2020. Scotland is the first country in Europe to include this WHO guideline value in domestic legislation. Plans to adopt the WHO guideline value for PM ₁₀ remain on hold. Given that the WHO guideline value is less	Complete for PM_{2.5} On hold for PM₁₀

				<p>stringent that the current Scottish objective (20µg/m³ compared to 18µg/m³), it is possible that a number of local Air Quality Management Areas (AQMAs) could immediately be revoked following such a change, through having higher PM₁₀ concentrations than the current Scottish objective but lower than the WHO guideline value. It is likely that most if not all of these AQMAs will be covered by new PM_{2.5} declarations once sufficient monitoring data is available, but in the meantime action on tackling fine particulate pollution could cease in these areas. This would be an unintended consequence of the change.</p> <p>Therefore no change to the PM₁₀ objective will take place until sufficient progress has been made with PM_{2.5}. Given the significant expansion in the PM_{2.5} monitoring network over the last two years (see LP2), it is envisaged that by the time of the next CAFS progress report, sufficient PM_{2.5} data will be available to allow a final decision to be made.</p>	
H2	NHS boards and their local authority partners will include reference to air quality and health in the next revision of	2016/17	Health Boards	<p>A survey of all NHS boards (NHSBs) in Scotland was carried out in late 2017. This identified that a majority of the NHSBs had either already included air quality as a topic in their current Joint Health Protection Plan (JHPP), or were planning to include it in the next revision of their plan (under preparation at the time of the survey). This was an encouraging finding. The initial results of the JHPP survey were shared with the Scottish Parliament Health and Sport Committee, which held an evidence</p>	<p>Significant progress</p> <p>Completion expected in 2018/19</p>

	<p>their Joint Health Protection Plans, which should identify and address specific local priority issues.</p>		<p>hearing in relation to air pollution and health in early April 2018.</p> <p>The content of JHPPs varied considerably; some included general points about the implementation of CAFS objectives and priorities, others included more specific items linked to plans for local Air Quality Management Areas (AQMAs) and broader objectives to improve air quality in their local areas. It was apparent that attitudes to the importance of air pollution as a topic varied mainly in relation to whether the NHSB was in a rural area, where air pollution is perceived to be less of an immediate threat or in a predominately urban area, especially in central Scotland where concerns related mainly to city centre pollution hot spots.</p> <p>The NHSBs were keen to have more guidance on what should be included in future JHPPs to address air pollution, and made a number of suggestions. These suggestions for improving the content of JHPPs will be included in the proposed Air Pollution and Health briefing under development by the Air Pollution and Health Group (APHG), a subgroup of the Scottish Health Protection Network (SHPN) Environmental Public Health Group (EPHG).</p> <p>The APHG, chaired by HPS, aims to improve the understanding of the relationship between air pollution and health in Scotland, develop initiatives to reduce the public health burden of preventable ill health associated with air pollution, and provides a mechanism of linking public health professionals in Scotland with the wider</p>	
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network of activities being undertaken under the auspices of the CAFS programmes. Recent topics considered by the group have included identifying options to support research to evaluate the health impacts of establishing the first Low Emission Zones (LEZs) in Scotland, and reviewing preliminary results of funded research work being carried out at Glasgow University to investigate options for the design of LEZs, to increase the potential for health improvement as well as to reduce air pollution levels.

The group will also be producing a briefing paper on air pollution and health in summer 2018, for circulation to all NHS boards and Local Authorities as an information resource. This will incorporate the latest data on air pollution monitoring trends in Scotland based on the latest report from the Scottish Air Quality Database (SAQD). In addition, previous work published by HPS in 2014 will be updated with the latest figures, providing estimates of the excess attributable mortality associated with (anthropogenic) PM2.5 pollution in Scotland. These show a trend for a reduction in average PM2.5 levels across Scotland since 2014, with a corresponding reduction in excess attributable mortality. It is planned to update this data each year. The briefing will also be used to provide links to other useful resources, especially those featuring toolkits on actions that local authorities and NHS boards can take to improve local situations, as well as suggestions for improving the air quality content of future JHPPs.

3.4 Transport

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion	
Transport	Avoiding travel						
	T1	All local authorities should ensure that they have a corporate travel plan (perhaps within a carbon management plan) which is consistent with any local air quality action plan.	2016/17	LAs	<p>The LAQM annual progress report (APR) template has been updated to allow local authorities to report on CAFS related actions. A review of the information provided in the annual progress reports for 2017 indicates the following progress has been made:</p> <ul style="list-style-type: none"> • 20 LAs have reported that they either have a corporate travel plan or a similar transport strategy in place, or were in the process of developing one at the time of reporting. • 4 LAs do not have a corporate travel plan or they have reported that it is outdated. • 9 LAs have not submitted enough information to determine their progress with T1 in their APR. <p>SEPA and the Scottish Government will consider what next steps or guidance may be required to encourage those LAs which do not yet have an appropriate corporate travel plan in place to ensure one is developed over the next CAFS reporting period.</p>	<p>In progress</p> <p>Completion expected in 2018/19</p>	

Active travel					
T2	We will finalise and deliver the National Walking Strategy Delivery Plan by 2016.	2016/17	TS/LA	The National Walking Strategy Action Plan was launched on 3 March 2016, along with a website and supporting infographic. This Action Plan is a high level plan that has been developed to assist in the delivery of the National Walking Strategy (NWS). The NWS Delivery Forum oversees the delivery of the Action Plan. The Forum is seeing strong progress against the Strategy's overarching aim to create a culture where everyone walks more often. A strong endorsement of the National Walking Strategy is evidenced in the latest Scottish Household Survey which shows that more people year after year are walking recreationally (up to 67% this year). It is encouraging to see the greatest increase is in those aged 75 and over, who are amongst those most likely to be inactive.	Complete
T3	We will work with partners to deliver our shared vision in the Cycling Action Plan for Scotland that by 2020, 10% of everyday journeys will be	2016-2020	TS/LAs	Progress towards meeting the headline shared vision of 10% of everyday journeys being made by bike has been disappointing. Transport Scotland are undertaking a broad programme of analytical work and engagement with delivery partners to better understand where we are making progress in improving rates of active travel and where we are not. Also, we have doubled the already record investment in walking and cycling, from £39.2 million to £80 million this financial year. The doubling of the active travel budget – plus match funding from local	In progress Ongoing delivery

	made by bike.			authorities and other partners - will allow us to invest in major capital infrastructure and behaviour change projects, which will increase active travel levels and reduce emissions through modal shift to walking and cycling.	
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Public transport					
T4	Support for green buses will be reviewed by 2016 including scope for supporting retrofitting existing vehicles, taking account of technological and market developments and the need to tackle air quality as well as climate change.	2016/17	TS	<p>Seven previous rounds of the Scottish Green Bus Fund (SGBF) since its launch in 2010 have provided grant funding of £16m, resulting in the addition of 361 new low carbon emission buses to the Scottish fleet. The eighth round, some £1.7m of funding, is currently open to applications. Bids will be considered and evaluated and successful bidders notified later in summer 2018.</p> <p>Transport Scotland has committed to extending green bus funding, and is currently reviewing how best to align with developments in technology and markets to tackle climate change ambitions, as well as to improve air quality. We are also reviewing the level and type of support to ensure it remains appropriate to incentivise take up from bus operators.</p> <p>The capital support will extend to both the marginal cost of green buses and infrastructure for the first time. The fund will start from 2019-20 to allow time for further development and for the industry to ramp up in terms of demand and supply.</p>	<p>In progress</p> <p>Completion expected in 2019/20</p>

T5	Evaluate the Bus Investment Fund in 2016 to learn from supported projects and inform decisions on options for future support for local projects to improve public transport.	2016/17	TS	An internal Transport Scotland process review of the former Bus Investment Fund (BIF) has been completed to evaluate how the fund would be structured. The results will help inform decisions on future support for bus-related projects in line with ministerial priorities.	Complete
T6	The Bus Operators Grant will be reviewed by 2016 including options to incentivise the use of low emission buses.	2016/17	TS	<p>The Scottish Government is maintaining the budget for the Bus Service Operators Grant (BSOG) at £53.5m as outlined in the draft Budget for 2018-19. At a difficult financial time, this shows continued commitment to supporting bus services across Scotland. The core BSOG rates for bus and community transport (14.4p/km) are being retained, illustrating the commitment to supporting the Scottish bus network, particularly in rural areas where BSOG is vital to smaller bus and community transport operators. The low carbon incentive BSOG rate (at 10.1p/km currently) has helped to bring around 500 green buses into the Scottish bus fleet.</p> <p>Transport Scotland is continuing to look at future options for BSOG, in particular the Low Carbon Vehicle Incentive.</p>	In progress Completion expected in 2018/19

				Low carbon technology has moved on and costs have reduced since BSOG was introduced in 2010 and there is a need to ensure that the scheme is fit for the technology of today and tomorrow, financially sustainable and effectively integrated with other policies and schemes, including the Scottish Green Bus Fund.	
T7	By 2016, review guidance and legislation on the powers of local transport authorities regarding bus service to see if they could be made more effective and to ensure enough priority is given to air quality alongside other considerations.	2016/17	TS	The Transport (Scotland) Bill, which was introduced to the Scottish Parliament in June 2018, and the ongoing National Transport Strategy (NTS) Review are both considering Low Emission Zones and bus services. Therefore, decisions on guidance to local authorities and regional transport authorities regarding bus services and consideration of air quality will now be made during 2019-20, to support the provisions of the Transport Act once passed and give effect to the strategic direction set by the NTS. In the meantime the current guidance will be kept under review in case there is a need for interim revisions.	On hold Completion expected in 2019/2020
Low Emission Vehicles					
T8	Continue delivery of actions contained in Switched On	2016-2020	TS	Transport Scotland's ChargePlace Scotland network has expanded to over 800 publicly available EV charge points including over 175 'rapid' charge points, one of the most comprehensive networks in Europe. Since 2012, the Scottish Government has invested approximately £15	Significant progress Ongoing delivery

	Scotland: A Roadmap to Widespread Adoption of Plug-In Vehicles.			million in the development of this public network and we will continue to work with all 32 Scottish Local Authorities, and private businesses and commercial operators through the Energy Saving Trust, to further develop and strengthen this network. Plans are in place to significantly expand the Switched on Fleets grant support to Community Planning Partnerships and the Low Carbon Transport Loan Fund for businesses and consumers in 2018/19.	
T9	Review the Roadmap and develop a post-2015 plug-in vehicle action plan.	2016/17	TS/SG	"Switched On Scotland Phase Two - An Action Plan for Growth" was published on 13 June 2017, and supersedes the previous Roadmap. The 2017 PfG commitment "to phase out the need for new petrol and diesel cars and light vans by 2032" further builds on the work of the refreshed roadmap's action plan and a delivery plan for delivery of that is now under development, for publication later in 2017.	Complete
T10	Work with key partners to investigate the use of hydrogen as a transport fuel, as well as exploring wider environmental and economic opportunities of	2015-2017	TS	In line with the Scottish Energy Strategy, policy on hydrogen as an alternative low carbon transport fuel is now being developed by Transport Scotland in collaboration with Scottish Government colleagues in the Energy Directorate and the Enterprise Agencies, in tandem with thinking on the role for hydrogen in low carbon heat, energy storage, and energy systems balancing.	Complete

	using hydrogen for energy applications – especially in promoting renewables, energy balancing and storage.				
T11	Continue to engage with our partners on the role less carbon intensive fuels such as liquid petroleum gas, compressed natural gas and biofuels can play in the transition to a near zero emission road transport sector by 2050.	2016-2020	TS	In line with the Energy Strategy, it is recognised that the contribution of lower carbon alternative liquid and gaseous fuels will play a significant role in the transition to a decarbonised transport sector. Transport Scotland are working with Scottish Government Energy colleagues, as well as UK Government and relevant industry and academia stakeholders to ensure that policy in this area is most effective to encourage uptake of such fuels.	In progress Ongoing delivery

Freight					
T12	Encourage each local authority with an AQMA to create a Freight Quality Partnership (or utilise an existing RTP Freight Quality Partnership) and consider appropriate measures for local air quality improvement by 2017.	2017/18	TS/LAs/RTPs	The main forum for partnership working on freight is the Scottish Freight and Logistics Advisory Group (ScotFLAG). There is an Urban Freight subgroup comprising the lead freight officials of the Regional Transport Partnerships and local authorities, with a remit to share best practice, identify opportunities, and co-ordinate activity aimed at increasing the sustainability, safety and efficiency of freight movements in Scotland's urban areas. Consideration is being given by the group to the first proof of an Urban Freight guidance document, with publication anticipated by the end of July 2018. This guidance also contains a section on Freight Quality Partnerships, and is expected to begin being implemented over the coming year.	In progress Completion expected in 2018/19
T13	Encourage Freight Quality Partnerships to extend their activities to include consideration of the environmental impact of freight transport.	2017/18	TS/SG	See T12.	In progress Completion expected in 2018/19

Regional and Local Transport Partnerships

T14	Review existing Ministerial guidance on Regional and Local Transport Strategies during 2016 in the light of the refreshed National Transport Strategy.	2016/17	TS/RTPs	The ongoing National Transport Strategy (NTS) Review, recommended by the refreshed NTS published early 2016, will set out transport policy across Scotland for the next 20 years. The NTS Review will consider transport governance and take into account new and emerging City and Regional Deal Structures. Work is therefore unlikely to commence on a full scale review of Regional and Local Transport Strategy Guidance until the NTS Review concludes in 2019.	On hold Completion expected in 2019/20
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Air Quality Management Areas and the trunk road network

T15	Trunk road impacts on AQMAs will be reviewed and implement mitigation where trunk roads are the primary contributor to air pollutants.	2016-2018	TS	Transport Scotland has contributed to the development of the draft Crieff Air Quality Action Plan by Perth and Kinross Council. The key aim is to identify transport-related actions that could be implemented to mitigate air pollution, where the main source of pollution is from traffic on the A85. The draft plan is currently under review.	In progress Ongoing delivery
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3.5 Placemaking

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion	
Placemaking	Contribution of placemaking to air quality improvements						
	P1	Ensure that future updates and revisions to Scottish Planning Policy and the National Planning Framework will take account of CAFS.	2016-2020	SG	<p>Delivery of actions P1 and P2 has been held back, while outcomes were awaited from 'Places, People and Planning: A consultation on the future of the Scottish Planning System', and the associated Planning Bill. A clear understanding of the likely outcomes from the review was required, particularly on how development plans are prepared, whether supplementary guidance is required, and which guidance may be embedded in the National Planning Framework, before engagement with local authorities on the CAFS Placemaking actions could begin. A Placemaking subgroup of CAFS is now being set up, which will include the chair of the Placemaking subgroup of the Scottish Government Key Agencies Group to progress actions P1 and P2 further.</p> <p>During this CAFS reporting period, an air quality-focussed 'technical version' of the Place Standard tool has also been developed in conjunction with the Place Standard Implementation Team to support the CAFS work, encourage more proactive consideration of air quality earlier in the planning process, and to enable better conversations within local authorities and</p>	<p>In progress</p> <p>Ongoing delivery</p>	

				communities of interest on air quality improvement measures, LAQM action planning, LEZs etc. This is currently being trialled in different air quality settings within Crieff, Glasgow and Edinburgh. The technical version of the tool will also be included in the mobile version of the Glasgow Science Centre CAFS exhibit (see C3).	
P2	Expect planning authorities to review the Local Development Plan and revise at the next scheduled update to ensure policies are consistent with CAFS objectives and any local authority air quality action plans.	2016/17	SG	See P1.	On hold Completion expected in 2019-20
P3	Work with Environmental Protection Scotland to produce updated guidance on air quality and planning.	2015-2017	SG	"Delivering Cleaner Air for Scotland; Development Planning and Development Management" was launched in February 2017. The guidance is intended to be used in the planning system for evaluating air quality. Environmental Protection Scotland (EPS) with assistance from the Royal Town Planning Institute (RTPI) Scotland updated the guidance document "Land-Use Planning and Development Control:	Complete

				<p>Planning for Air Quality”, developed by Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM).</p> <p>EPS tailored this guidance to Scotland, given its different planning system and air quality standards and objectives. EPS’s air quality expert group, which is chaired by Ricardo Energy and Environment, and includes members from SEPA, local authorities, consultants, and the Scottish Government all provided comments and input to the document.</p>	
P4	Work with SEPA to introduce air quality training for local authority spatial and transport planners.	2015-2017	SG	The air quality training package for planners is now in the final stages of development by SEPA, and materials are being updated to take account of outcomes from the planning review. Delivery has been trialled with SEPA planners, and local authority planning volunteers. A delivery plan is being developed for rolling the training out more widely to local authority transport and land-use planners during 2018/19.	<p>Significant progress</p> <p>Completion expected in 2018/19</p>
P5	Support SEPA in revising its guidance on Strategic Environmental Assessment to bring it into line with CAFS.	2015-2017	SG	SEPA published its revised Strategic Environmental Assessment (SEA) air quality guidance in April 2017. Representatives from the CAFS Governance Group engaged with the appropriate leads in SEPA, to ensure the revised guidance took account of CAFS.	Complete

3.6 Climate Change

Objective	Ref.	CAFS Action	Period for Completion	Delivery Organisation	Progress	Delivery Status/ Revised Period for Completion	
Climate Change	Effective co-ordination of climate change and air quality policies to deliver co-benefits						
	CC1	Ensure that future updates to the 'Low Carbon Scotland: Meeting Our Emissions Reduction Targets' publication on meeting our climate change targets take into account air quality impacts.	2016/17	SG	To ensure that updates to the next Scottish Climate Change Plan took air quality impacts into account, a CAFS Climate Change Sub-group was brought together, drawing widely on the expertise in relevant organisations throughout Scotland. Following even wider consultation, advice and challenge, the Sub-group completed its report "Synergies and Tensions between Climate Change and Air Quality Actions" in October 2016. The report, including 50 key findings, was submitted to the Scottish Government teams drafting the next Scottish Climate Change Plan. The Sub-group also contributed to the work of a UK cross-department group that has been set up to explore the requirements and opportunities for cross disciplinary research to provide a stronger evidence base for analysing the synergies and tensions of policy and regulation of air quality and climate change	Complete	
	CC2	Expect any Scottish local authority which has or is	2018/19	SG/LA	The LAQM annual progress report (APR) template has been updated to allow local authorities to report on CAFS related actions. A review of the information provided in the annual progress reports for 2017	In progress Ongoing delivery	

	currently developing a Sustainable Energy Action Plan to ensure that air quality considerations are covered.			<p>indicates the following progress has been made:</p> <ul style="list-style-type: none"> • 12 authorities have reported that they have a Sustainable Energy Action Plan (SEAP) which includes air quality considerations, or are currently developing a SEAP. • 2 authorities do not have a formally adopted SEAP and are not in the process of developing one at this time. • 18 authorities have not submitted enough information to determine their progress with action CC2. Although most have climate change policies of some sort, it is not clear if they take air quality policies in to consideration. <p>SEPA and Scottish Government will consider what next steps or guidance may be required to encourage those LAs developing SEAPs to ensure air quality is considered to ensure air quality is considered.</p>	
CC3	The Forestry Commission Scotland will publish updated guidance on the impact of biomass on air quality to help local authorities fulfil their statutory responsibilities.	2015-2017	FCS	In November 2014 the then Minister for Business, Energy & Tourism met with local authorities to discuss biomass procurement. Attendees requested clarification on existing legislation and guidance relating to air quality and biomass boilers installed under the Renewable Heat Incentive. Consequently, Forestry Commission Scotland has produced guidance on this issue which was published in November 2015.	Complete

4. Next Steps

The CAFS Governance Group remains in place to oversee the ongoing delivery of the CAFS objectives and actions.

Key tasks over the next reporting period include:

- Commencement of a full review of CAFS, a key element of which will be to give greater attention to other emission sources beyond transport such as agriculture, and to focus in more detail on effective coordination between air quality and climate change policies.
- Establishment of Scotland's first Low Emission Zone in Glasgow by the end of 2018.
- Continuing preparatory work for introducing further Low Emission Zones in Aberdeen, Dundee and Edinburgh by 2020.
- Publication of the NLEF guidance.
- Further development of the NMF regional model.
- Progressing the strategic-level Placemaking actions further in light of the planning review, to ensure that air quality is a key component in the review of the National Planning Framework and Scottish Planning Policy.
- Support Transport Scotland's ongoing review of the Green Fund Bus Fund and Bus Service Operators Grant Low Carbon Vehicles Incentive.
- Draw together existing communications strands into a more comprehensive national air quality public awareness campaign.



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