# Cleaner Air for Scotland
# The Road to a Healthier Future

## 2016 Progress Report

June 2017

Scottish Government
Riaghaltas na h-Alba
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## Contents

## 1. Ministerial Foreword

This report outlines the progress made during 2015/16 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 first 12 months, we have made significant progress in starting to deliver this vision through the 40 key actions contained in the strategy.

An important step has been to establish a Governance Group to oversee this delivery, with wide ranging representation. The Governance Group is in turn supported by several expert subgroups focusing on specific topics, along with valuable input from other partners. The input and support of numerous organisations across the public and private sectors was vital during the development of Cleaner Air for Scotland. It is encouraging to see that this enthusiasm has been maintained into the operational phase, as collaborative working will be absolutely essential to what we are trying to achieve.

Underpinning Cleaner Air for Scotland is an emphasis on protecting human health and wellbeing and reducing health inequalities. In support of this we have adopted in Scottish legislation the World Health Organisation (WHO) guideline value for fine particulate matter ($PM_{2.5}$), making us the first country in Europe to do so. This, and other achievements, are covered in the main part of the report. 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 2018 whilst continuing to progress all the other actions in Cleaner Air for Scotland.

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

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

**Humza Yousaf MSP**
**Minister for Transport & The Islands**

## 2. Introduction and Background

Despite progressively reducing emission 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, elderly, those with pre-existing medical conditions, and those living in urban areas and deprived circumstances).

As a result of the monitoring network being expanded (see 3.2.1), four new Air Quality Management Areas (AQMAs) were declared in Scotland in 2016, bringing the total to 38. All but two of these are due to emissions from road traffic.

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 adaption 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. In its first year CAFS has sought to progress a series of actions across six main policy objectives, as shown in Figure 1 below, including a number of important new initiatives:

- 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 2016 -17. Progress is supported by the CAFS Governance Group, and actions are managed by specific working groups and sub-groups. This first annual report outlines the current range of work carried out across the main policy areas to deliver CAFS commitments during 2016.

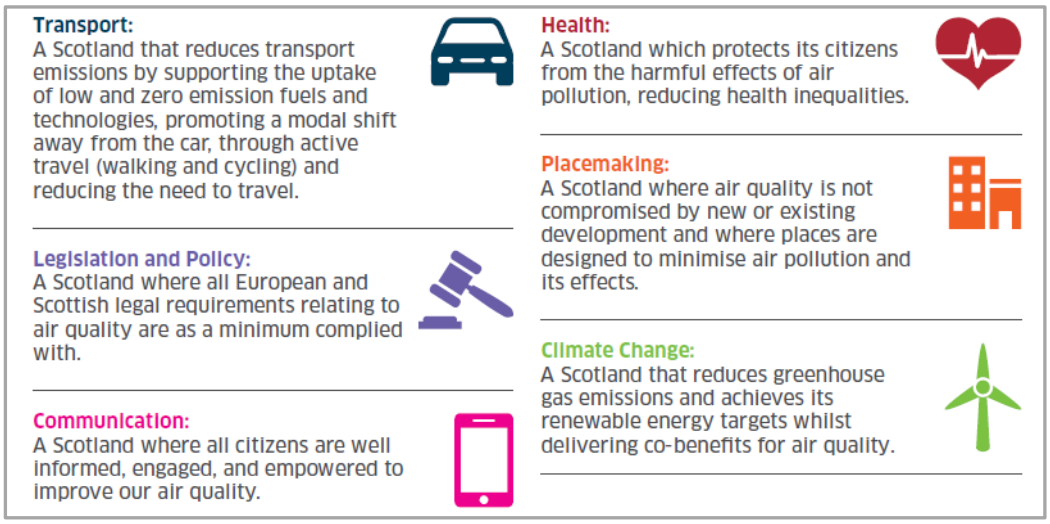



**Figure 1:** The six key objectives of the Cleaner Air for Scotland (CAFS) Strategy

## 3. Policy objectives - progress

### 3.1 Communications

#### 3.1.1 Environmental Indicators

Easily understood environmental indicators are essential to communicate and report effectively on complex environmental issues, such as air quality. Following a review of existing indicators and reporting, CAFS identified the need for improved monitoring and assessment of compliance with air quality legislation. This will also assist with the provision of meaningful information to the public.

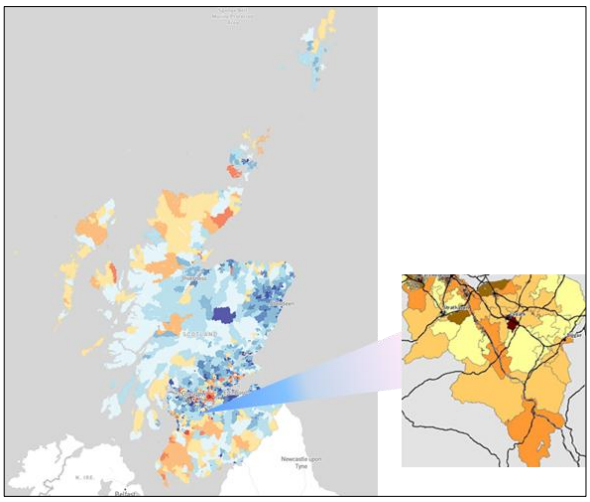
The Scottish Government commissioned an academic study to develop a series of Scottish Air Quality Indicators (SAQI) using existing and innovative statistical techniques. The proposed SAQIs will aim to provide evaluation and reporting improvements across local authority datazones (see Figure 2, below, for an early example) and will contribute to the development of future CAFS Key Performance Indicators (KPIs). The Institute of Occupational Medicine (IOM) developed a consortium to undertake the development of the SAQI. The consortium consisted of the Institute of Occupational Medicine (IOM), Centre for Ecology and Hydrology (CEH) and the University of Glasgow.

Within the project, it was agreed that the SAQI should be developed using the following principles:

- The purpose of the SAQI is to track trends in air quality over time to determine the effect of policies to improve air quality.
- The SAQI should be spatially compatible with other administrative and environmental data, such as the National Scottish Index of Multiple Deprivation (SIMD) and other Key Performance Indicators (KPIs)
- There should be a single aggregate index
    - Based on annual average concentrations
    - Incorporating multiple pollutants ($PM_{2.5}$, $PM_{10}$, $NO_2$, $O_3$, $SO_2$)
    - Spatial support would be the datazone.

The consortium will take forward further work on developing the SAQI during 2017. The design method will be flexible to ensure updates can be incorporated as knowledge on the pollutants or the health impacts change.

**Figure 2:** National Scottish Index of Multiple Deprivation (SIMD) datazones for reporting by local authorities and the local environmental deprivation indicator approach (SLIMD) developed by South Lanarkshire Council.



### 3.1.2 Coordinating Air Quality Messages

The CAFS Communications Group supports the coordination of air quality messaging and collaborative opportunities amongst CAFS partner organisations. As part of this, during 2017 the group, which includes SEPA, Transport Scotland, Health Protection Scotland, NHS and Scottish Government, will develop a programme of work to support the vision of a Scotland where all citizens are well informed, engaged and empowered to improve our air quality. The group is working towards delivering a national air quality public awareness campaign.

As a member of the Communications Group, the Scottish Government will be able to work with partners to co-ordinate support for the ongoing Greener Scotland communication campaigns, encouraging individuals to improve their health and their local environment.

In its first year, the CAFS Communications Group has engaged with a wide range of organisations to understand existing communications activities, gaps in knowledge and awareness and existing resources that can be drawn from. In addition to individual engagement, a workshop was held that included non-governmental organisations (NGOs) and other organisations that are already operating in the field of air quality communications.

### 3.1.3 Engaging Young People on Air Quality

CAFS sets out a clear vision for Scotland's air quality, with a series of objectives including '**A Scotland where all citizens are well informed, engaged, and empowered to improve our air quality**'. In delivering this objective, SEPA worked in partnership with Glasgow City of Science and Young Scot to engage young people across a wide demographic area to host 2016's VentureJam event. This

event was held on 5-7 August 2016, and brought together young people from across Scotland to work in teams with the aim of developing fresh, novel and creative business solutions to tackle air pollution. A pre-event 'Air Time' was also held on 18 June, featuring a collection of hands-on, creative activities to help young people understand the challenge of air pollution. Three teams from VentureJam were selected to pitch their ideas to top innovation experts at the Venturefest Scotland event on 1 September 2016. The winning team, Project AirTech, received direct investment from Social Investment Scotland (SIS), in order to take forward their idea for an app that reduces people's exposure to air pollution by providing them with safer routes through city centres and other polluted areas, whilst promoting sustainable travel modes.

As part of the campaign to promote both VentureJam and the issue of air pollution, animations were projected onto the Glasgow City Chambers, the Armadillo and the Glasgow Science Centre.


In January 2017 SEPA and a range of partners including pupils from St Ninian's Primary School, Transport Scotland, Scottish Government, Local Authorities and Health Protection Scotland launched the new interactive Cleaner Air for Scotland exhibit at the Glasgow Science Centre. The exhibit was commissioned by the Scottish Government as part of the Cleaner Air for Scotland strategy, and is designed to help visitors understand the different sources of air pollutants and how poor air quality affects human health and the environment. As part of the experience, school children are encouraged to think more about the effects of air pollution on themselves and their family, and how they can help to improve air quality through the choices they make while growing up.

### 3.1.4 Enhanced Air Quality Visualisation tools – Air Quality in Scotland Website

SEPA launched the new air quality data analysis and visualisation tools at the Scottish Air Quality Seminar on 24 January 2017. Currently available as beta test webpages on the Air Quality in Scotland website, the tools are fully operational and open for comments.

The Spotfire tools use data from SEPA's Scottish Air Quality Database and present it in a simple and pre-analysed format, providing:

- Pre-filtered and analysed air quality data that is accessible for anyone to view and interrogate.
- Advanced data analysis of live and historical air quality data, providing local authorities with reporting data.
- International data to identify movement of transboundary pollution that crosses Scotland, and affects local air quality.
- A dedicated area for the National Modelling Framework (NMF), with modeled air quality data presented for local authorities to develop traffic-specific actions.

For the first time, air quality data is provided to both the general public and local authorities in a visual and informative way, providing access to the full range of air quality information collected across Scotland.

The enhancement tools support the delivery of the CAFS commitment to ensure that the public are well informed, engaged, and empowered to improve air quality.

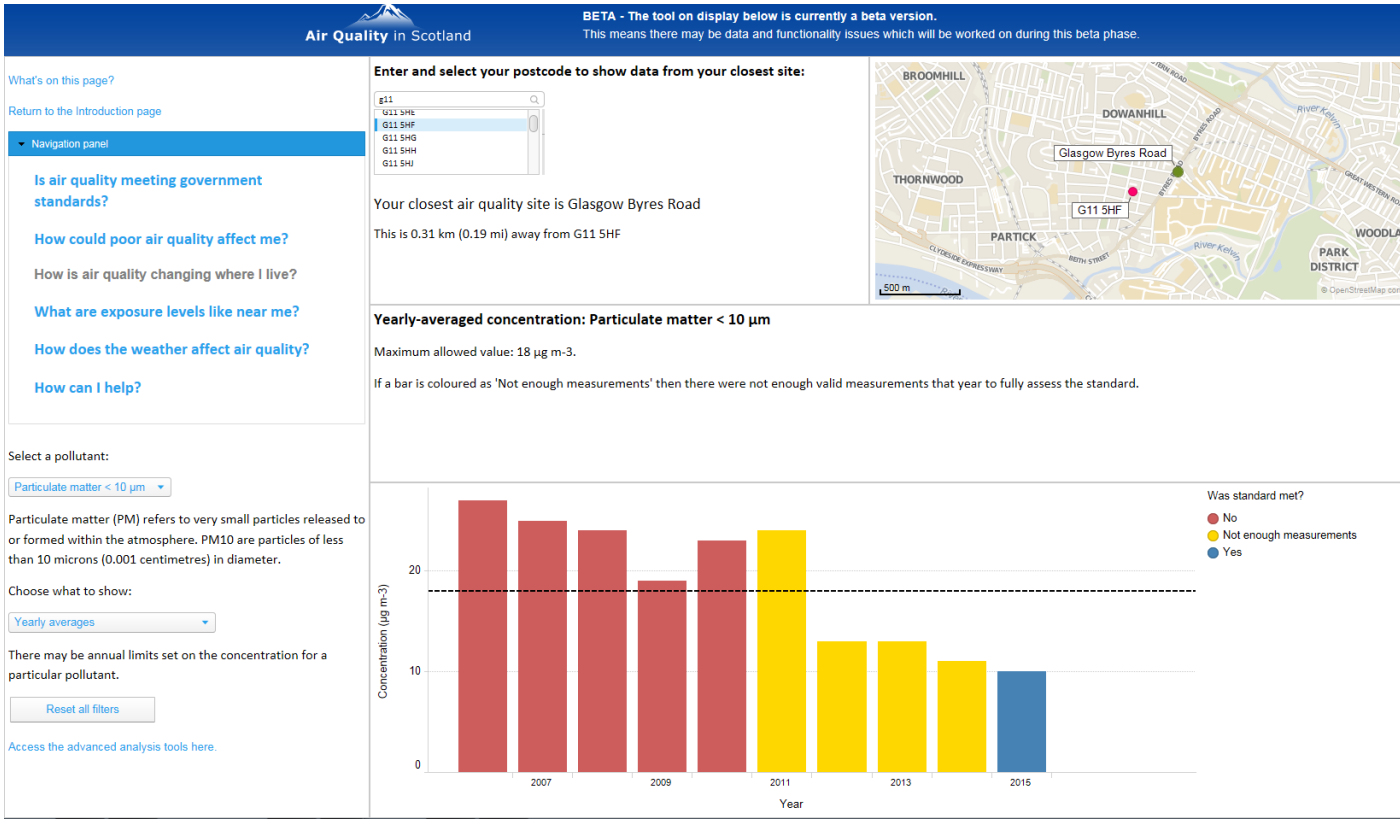



**Figure 3:** Air Quality in Scotland – air quality data analysis and visualisation tools.

## 3.2 Legislation and Policy

### 3.2.1 Local Air Quality Management

Following an extensive period of consultation, a refreshed Local Air Quality Management (LAQM) process for Scotland was launched in April 2016. Key changes include a single annual progress report to streamline the reporting process, publication of revised and updated Scottish policy guidance and UK technical guidance to assist local authorities in undertaking their LAQM duties, and reference to the new National Low Emission Framework (NLEF) - see 3.2.3.

The revised guidance also takes account of the linkages between air quality and noise. Air pollution and noise are often emitted from the same sources (notably road traffic), and locations of poor air quality can coincide or overlap with locations subject to high noise levels. Air Quality Management Areas (AQMAs) are currently being superimposed onto noise maps by the Scottish Government, to help local authorities better understand where local air quality and noise issues interact. Even where they do not coincide, poor air quality at one location and high levels of noise at a neighbouring location may be related to one another through the way in which traffic is managed in the wider area. In aiming for the most beneficial outcome for public health and quality of life it is important to seek measures that both improve air quality and reduce noise levels, and avoid measures that worsen one while seeking to improve the other.

In April 2016, the Air Quality (Scotland) Amendment Regulations 2016 came into force. These regulations introduce 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. This replaces the previous provisional objective of 12µg/$m^3$ and local authorities are now legally required to assess $PM_{2.5}$ as part of their LAQM duties. Scotland is the first country in Europe to include this WHO guideline value in domestic legislation.

As part of the 2016/17 funding support for local authorities to assist with LAQM monitoring and modelling work, awards were made to fund 13 new $PM_{2.5}$ monitoring stations, adding significantly to the existing network of 16 sites.

In July 2016, a beta version of SEPA's Volcanic Emissions Network was launched for consultation. Consisting of four sites in Lewis, Orkney, Tulloch Bridge and Loch of Strathbeg, the network measures pollutants ($PM_{2.5}$, $PM_{10}$ and $SO_2$) from grounding volcanic plumes. The reporting mechanism to the Scottish Government is being developed in partnership with the Met Office, to ensure consistency in approach and in messages provided during volcanic activity and related pollution episodes.

In December 2015, a revised package of UK $NO_2$ action plans was submitted to the European Commission (EC), including updated Scottish plans. These plans incorporate developments since the original submission in 2011. Following the High Court judgement on the second Client Earth Judicial Review in November 2016, further revisions to the UK plans were issued for consultation in May 2017. These revised plans will be submitted to the EC by the end of July 2017.

### 3.2.2 National Modelling Framework

Following on from early work in Aberdeen during 2015 SEPA is continuing to lead on the collaborative approach to the technical development of the new two-tiered approach to the NMF (Regional and Local), illustrated in Figure 4 below.

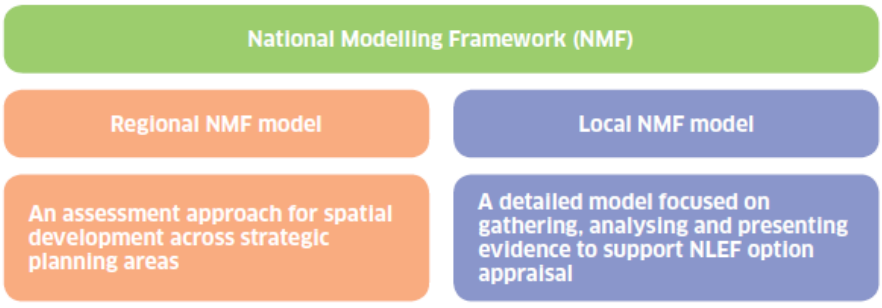



**Figure 4:** The NMF approach

The NMF provides key evidence for the delivery of CAFS. At the regional level it will support decision making around placemaking and transport planning in relation to LAQM. At the local level it will provide a significant proportion of the quantitative evidence for the NLEF.

Key to the success of the NMF is the close collaboration of the various partners in gathering existing evidence, data, and modelling approaches, to ensure alignment

and consistency in delivery. To support delivery of the local NMF models, four individual modelling groups have been established for the main Scottish cities of Aberdeen, Dundee, Edinburgh and Glasgow. These groups will work collaboratively with the NMF Regional Delivery Group (currently under development) as shown in Figure 5 below. As the implementation of CAFS progresses, it is envisaged that further individual city groups will be set up for the smaller cities with existing AQMAs.

Members of all groups will be cross professional and cross organisational, and membership currently include Regional Transport Partnerships (RTPs), Transport Scotland, SEPA, and city representatives.


**Figure 5:** NMF Delivery groups

### Regional NMF Delivery

As part of the NMF Regional Delivery Group, SEPA and Transport Scotland are assessing the regional transport and traffic models available through the existing Land Use and Transport Integration in Scotland (LATIS) framework. This will evaluate how the regional NMF model can utilise existing traffic data or where there are data gaps that need to be resolved to ensure the accuracy of the regional NMF approach.

In September 2016 SEPA and Transport Scotland contributed to the Tayside and Central Scotland Transport Partnership (TACTRAN) stakeholder consultation meeting on the TACTRAN proposal to develop a regional transport model for the development of strategic business cases for major transport and land-use interventions. A range of partners was also involved in the meeting, including Tay Cities Deal, Scottish Enterprise, TAYplan, SEStran, Dundee City Council, Perth and Kinross Council, Angus Council, and Fife Council. The cross-organisational approach developed, and the linked approach to modelling, will be applied to the development of the regional air quality model. Members of the NMF Regional Delivery Group have been identified through existing groups, and a start-up meeting is planned early in 2017.

As an early trial of developing the regional NMF, the Netherlands air quality modelling approach has been applied to the Aberdeen and Glasgow regions using traffic data collected for the NMF city models.

### Local NMF Delivery

Progress to date on developing the four local NMF models has been good, with the first four city groups set up (see Figure 5 above). During 2016 the Glasgow NMF

Group worked together to appraise existing data, and identify new traffic data requirements. This data has now been gathered and detailed traffic surveys have been undertaken. The city air quality model has been developed and presentations on the outputs of the Glasgow model, including source apportionment were presented to the Glasgow Group late in 2016.

The Edinburgh traffic survey data was collected during November 2016 (see below, Figure 6).

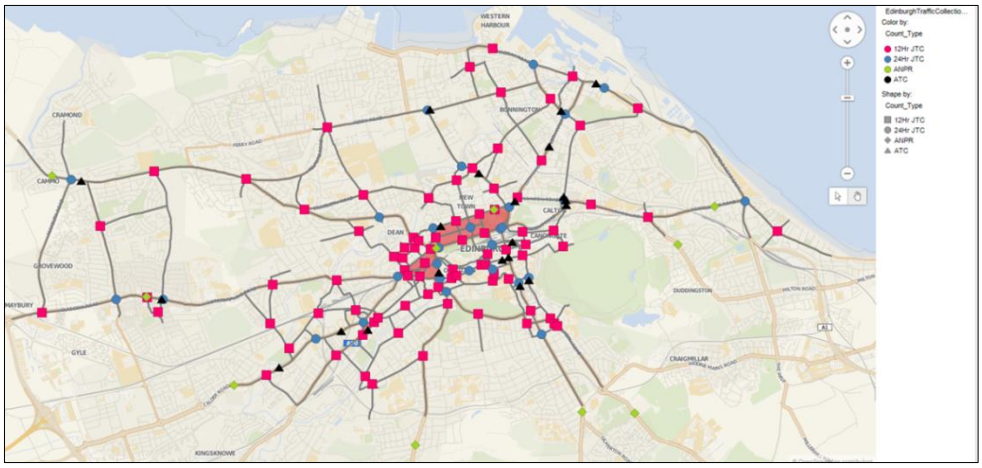


**Figure 6:** Traffic data collected for Edinburgh during November 2016.

The traffic survey locations and modelling areas for Dundee and Aberdeen have been agreed, with survey data due to be collected during 2017. Transport Scotland is continuing to develop the National Transport Data System (NTDS) to allow open access to all Scottish transport data. Once the NTDS is up and running, SEPA will develop a Spotfire application to support visual analysis of the data.

SEPA is continuing to develop the enhanced data analysis applications that will be hosted on the Air Quality in Scotland website (see section 3.1.4). These applications will provide a visual interface to allow public interrogation of live and historic air quality datasets. Applications specific to the city air quality models will be populated with the city model datasets as they become available during 2017. The city air quality models applications will be password protected for local authority and partner use alone, as these will relate to the development of appropriate actions and NLEF option appraisals.

As noted above, the applications have been developed for the Glasgow city model and provided as a demonstration tool (see below, Figure 7). The first map shows kerbside concentrations for the National Fleet, and the second illustrates potential improvements if all buses were EURO VI (or similar emission standard).

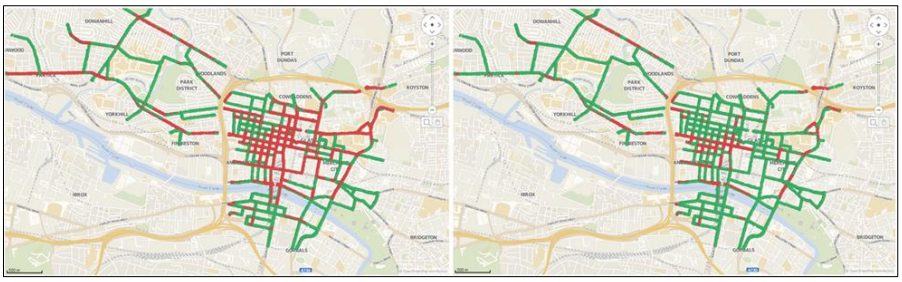


**Figure 7:** Comparison of the changes to modelled $NO_2$ for different traffic scenarios for kerbside points in Glasgow, through the online data analysis application.

The identification of further cities and urban areas requiring detailed assessment and modelling within a NMF city model will be progressed once modelling of the initial four cities is complete. This will use information from the regional air quality models.

### 3.2.3 National Low Emission Framework

Transport Scotland is leading on the development of the National Low Emission Framework (NLEF), an important new transport-focused, science-led, evidence-based appraisal process to enable local authorities and partners to establish the business case for, and implement, a range of air quality improvement options related to transport (and associated land-use), including Low Emission Zones (LEZs). The NLEF will be supported by analysis and evidence provided by the NMF and other new tools.

The NLEF Steering group was established in July 2016 and Transport Scotland has led on engagement with a wide range of organisations to begin developing the NLEF criteria, tests and processes. Detailed design of the NLEF appraisal guidance began in November 2016. Progress is now well underway with a workshop on the key findings held in January 2017 and publication for consultation programmed for later in 2017.

In June 2016, working with academic partners, Transport Scotland delivered a workshop to a full range of stakeholders on the QCumber-EnvHealth software platform. This is new software, developed under an Innovate UK project, to quantify urban environmental exposure and health risks under different policy scenarios. Following this, in September 2016, an NMF NLEF workshop was held jointly with the ITS UK Smart Environment Interest Group (SEIG), SEPA, Transport Scotland, and academic partners to discuss the latest developments on the NMF, the NLEF, and the opportunities for cross-professional working on developing these new approaches to decision-making. Following this event Transport Scotland arranged a series of further meetings with key organisations to discuss NMF-NLEF interlinkages and the development of tools required for NLEF appraisal. These tools and associated guidance for the NLEF, including funding options and technical reports to underpin the evidence on effectiveness of options, were discussed at a workshop with stakeholders in January 2017.

The first LEZ location and size will be determined by air quality and transport modelling, together with other evidence on effectiveness, cost, and benefit. In September 2016 the new Programme for Government confirmed that with the help of local authorities, we will identify and put in place the first LEZ by 2018, creating a legacy on which other areas can build. This challenging timescale requires detailed

cross-organisational collaboration and cross-professional working. Transport Scotland is leading on engagement and evaluation of tools and support required to meet this commitment.

### 3.3 Health

The publication of CAFS in November 2015 was highlighted to the Directors of Public Health of the 14 regional NHS Boards, advising them of the contents and drawing their attention to the specific Health Objective relating to inclusion of air quality in future Joint Health Protection Plans (JHPP). The JHPPs are plans dealing with local priorities in health protection, and are drawn up jointly between the local NHS Board and local authorities sharing the same geographical boundary. Historically these plans are dominated by high profile communicable disease health protection issues of local importance.

The specific CAFS objective requiring these plans to address local air pollution and health issues jointly is seen as an important mechanism to raise the profile of the topic with local NHS Boards and their public health departments, where air pollution has not generally been regarded as a high profile priority topic, relative to other health protection challenges. The aim was also to encourage increased dialogue and joint consideration by NHS Boards and local authorities of initiatives aimed at supporting the objectives of CAFS.

An Air Pollution and Health Group has been established to provide a means of linking public health professionals in Scotland with the wider network of activities being undertaken under the auspices of the CAFS programmes. This group will link with the CAFS sub-group structure but will be chaired by Health Protection Scotland (HPS) as a sub-group of the Scottish Health Protection Network (SHPN), funded by the Scottish Government Health Department. The primary accountability of the group will therefore be to the SHPN Oversight Group, as a sub-group of the SHPN Environmental Public Health Group (EPHG). The group will support the needs of the SHPN, Scottish Government Health Protection team and public health practitioners in Scotland by providing a forum dedicated to considering air pollution and health issues from primarily a public health perspective. It will also function as a method for the CAFS Governance Group to have continued input on health related aspects of CAFS initiatives.

The group will initially focus on identifying opportunities to raise the profile of air pollution as a local public health issue with the wider membership of the SHPN. It will do so by identifying new developments and relevant research findings and by providing briefings to the SHPN membership on these. The emphasis will be on promoting how this information may be used locally to inform awareness and steer local initiatives aimed at reducing the burden of health impacts associated with air pollution

Scientific knowledge on the effects of air pollution on human health continues to evolve, with evidence accumulating on the role of individual pollutants and

components of air pollution, and how these impact on individuals. To date, much of the research on air pollution and health has relied on modelling health impacts at population level. This is the kind of data that current air quality guidelines are predominantly based on. The impacts of particulates on health at population level have been extensively studied and are now relatively well understood. Consequently we can estimate the impacts of traffic and other man made particulate pollution with reasonable confidence.

However it must be understood that these are estimates, not actual counts of impacts on individual people. The figures quoted (e.g. deaths attributed to air pollution) are not actual cases of death caused by air pollution (in the way that deaths due to road traffic accidents are individual deaths caused by traffic) but are modelled estimations of the relative scale of the health impacts.

Communicating the scale of health impacts associated with air pollution to the general public in a meaningful way that is not misleading therefore remains a challenge. During 2017, the Committee on Medical Effects of Air Pollutants (COMEAP) will report findings of an extensive review of the evidence on the health impact of exposure to nitrogen oxides (NOx), to complement its previous work on particulates. This will help improve our understanding of the additional burden of illness associated with this pollutant, especially in urban areas. As more evidence accumulates, it adds to the view that we should continue to strive to reduce preventable air pollution to levels as low as is practicable, even if these are already close to or below existing guideline values.

## 3.4 Transport

### 3.4.1 Active Travel

The National Walking Strategy Action Plan was launched on 3 March 2016, along with a website (http://www.stepchangescot.scot/action-plan.html) 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. A National Walking Strategy Delivery Forum is overseeing 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 69% 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.

Transport Scotland continues to invest record levels of funding in active travel projects through partnership working with key stakeholders including local authorities, communities, public, private and third sectors organisations. A third version of the Cycling Action Plan for Scotland (CAPS) will be published in early 2017 and will reiterate the Government's commitment to achieving the shared vision

of 10% of everyday journeys to be made by bike by 2020. Increases in active travel will contribute positively to the outcomes in CAFS.

### 3.4.2 Regional and Local Transport Partnerships

In August 2016, the Minister for Transport and the Islands announced a review of the National Transport Strategy (NTS) which will set out transport policy across Scotland for the next 20 years. This work will take place over the next two to three years and will inform a full review of the guidance for local and/or regional transport strategies. Work is also underway to develop proposals for inclusion in a consultation on a miscellaneous Transport Bill which has been proposed for later in the Parliamentary term. This work may also influence the development of guidance for local and/or regional transport strategies. In the meantime opportunities will be sought to review the existing documents to align with the objectives of CAFS and to produce interim guidance or advice, particularly where that is needed by either local authorities or RTPs.

### 3.4.3 Public Transport

#### Scottish Green Bus Fund

There have been six previous rounds of the Scottish Green Bus Fund (SGBF) since its launch in 2010, which have provided grant funding of £14.76m, resulting in the addition of 315 new low carbon emission buses to the Scottish fleet. The seventh round will be launched in 2017, and will be an interim solution. Transport Scotland is currently reviewing how future rounds should function, given developments in technology and markets and the need to tackle both air quality and climate change emissions. Among other things, the review is looking at whether:

- the level of support remains appropriate to incentivise take up from operators, without over-paying;
- funding should be available for infrastructure such as charging apparatus, as well as for vehicles;
- some support should be given for vehicles offering significant air quality improvements without necessarily complying with the definition of a low carbon vehicle.

#### Bus Service Operators Grant

The Government is increasing the budget for the Bus Service Operators Grant (BSOG) from £50m to £53.5m as outlined in the draft Budget for 2017-18. 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 has been a great success, helping to bring nearly 500 green buses into the Scottish bus fleet. Transport Scotland is now

looking at future options for the scheme. 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, and is financially sustainable.

A review of the former Bus Investment Fund is nearing completion and will inform decisions on future support for bus related projects. The outcome of the National Transport Strategy review (see 3.4.2 above) will inform future guidance to local authorities and regional transport authorities regarding bus services and consideration of air quality. There may also be implications for the guidance arising from work under way to develop proposals on bus services and LEZs for inclusion in a transport bill later in the 2016-21 Parliamentary session. In the meantime the current guidance will be kept under review in case there is a need for interim revisions.

### 3.4.4 Low Emission Vehicles

Delivery of actions in 'Switched On Scotland: A Roadmap to Widespread Adoption of Plug-In Vehicles' has continued. Another round of Switched On Fleets has been launched, bringing total investment to £3.5 million and the addition of around 350 new electric vehicles to the Scottish public sector fleet. A National Framework of Local Incentives for EVs has also been developed, which looks at the potential for Scottish local authorities to introduce a range of measures which could encourage the uptake of electric vehicles (EVs), for example, free parking, access to bus lanes and reduced licensing fees for electric taxis.

Transport Scotland is currently refreshing Switched On Scotland. A Progress Review was published on 8 November 2016 and it is aimed to publish the refreshed Roadmap by spring 2017. Transport Scotland's ChargePlace Scotland network has expanded to over 600 publicly available EV charge points, equating to over 1,200 charging bays. This includes over 150 'rapid' charge points, one of the most comprehensive networks in Europe.

Transport Scotland and Scottish Enterprise have worked closely with Innovate UK on the development of Hydrogen and Fuel Cells: Opportunities for Growth – A Roadmap for the UK which looks at opportunities, barriers and priorities for hydrogen technologies in transport and across other sectors. This Roadmap will inform policy-making and investment priorities in this area. Hydrogen technologies' potential applications across the transport, power and heating sectors are also included within the new draft Scottish Energy Strategy, published for consultation in January 2017.

A workshop on gas-fuelled options for commercial vehicles took place in May 2016 and attracted a great deal of interest and engagement. After collaboration on the event, Transport Scotland and the Low Carbon Vehicle Partnership (Low CVP) continue to work together on policy development for this technology, in light of ongoing truck technology trials and emissions analysis.

### 3.4.5 Freight

The Scottish Freight and Logistics Advisory Group (ScotFLAG) Urban Freight Subgroup was set up at the start of 2016, in response to the findings of the Infrastructure and Capital Investment (ICI) Committee's Freight Inquiry. The group has met regularly throughout the year, and has 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 in order to tackle the environmental and safety challenges posed by urban freight movements, including air quality. Regional Transport Partnerships are represented on ScotFLAG, and provide updates on relevant freight projects/activities they are undertaking at bi-annual meetings. Scottish Government guidance on setting up Freight Quality Partnerships (FQPs) remains available.

## 3.5 Placemaking

### 3.5.1 Consultation on the Future of the Scottish Planning System

Outcomes from Places, People and Planning: A consultation on the future of the Scottish Planning System will likely influence the delivery of the CAFS Placemaking actions, such as ensuring future updates to Scottish Planning Policy (SPP), the National Planning Framework (NPF) and Local Development Plans (LDPs) take account of CAFS, and its technical frameworks. A clear understanding of the likely outcomes from the review, particularly on how development plans are prepared, whether supplementary guidance is required, and which guidance may be embedded in NPF, will also help when engaging with local authorities in the CAFS Placemaking actions.

Rather than setting up a dedicated CAFS Placemaking Sub-group initially, a workshop has been proposed, intended to take place in 2017 and should include attendees from Scottish Government Planning and Architecture Division, Heads of Planning Scotland, the Improvement Service and local authorities. This workshop will aim to consider how planning authorities can raise awareness of the aims of CAFS and the NMF and NLEF and ensure it is embedded in their processes; better understand what actions local authorities are already taking with regards to their LDPs, and potentially also consider how use of the Place Standard Tool could encourage more proactive conversations about air quality early in the planning process. This workshop will then inform the need for a possible CAFS Placemaking group.

### 3.5.2 Updated Guidance on Air Quality and Planning

Environmental Protection Scotland (EPS) with assistance from the Royal Town Planning Institute (RTPI) Scotland has updated the guidance document "Land-Use Planning and Development Control: Planning for Air Quality", developed by Environmental Protection UK (EPUK) and the Institute of Air Quality Management

(IAQM). EPS has tailored this guidance to Scotland, given its different planning system and air quality standards and objectives. The guidance is intended to be used in the planning system for evaluating air quality. 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 – Delivering Cleaner Air for Scotland, Development Planning and Development Management - which was launched in February 2017.

### 3.5.3 Air Quality Training for Planners

Work is continuing on developing air quality training for local authority spatial and transport planners. During summer 2016 SEPA and local authority planners, air quality policy leads, and representatives from the Improvement Service and RTPI carried out a review of draft materials produced by Ricardo on behalf of the Scottish Government. These materials are now being finalised by SEPA, with a view to begin delivery of the training during 2017. SEPA is currently revising its Strategic Environmental Assessment (SEA) air quality guidance, which will be finalised during 2017. Representatives from the CAFS Governance Group are engaging with the appropriate leads in SEPA, to ensure the revised guidance takes account of CAFS.

## 3.6 Climate Change

### 3.6.1 Climate Change Plan

To ensure that future updates to the next Scottish Climate Change Plan take 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 has 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.

### 3.6.2 Biomass

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.

## 4. Next Steps

Consultation on revised UK action plans for securing compliance with the air quality Directive commenced on 9 May 2017 under the terms of the High Court judgement, with final plans submitted to the European Commission by 31 July.

Discussions with local authorities and partners are continuing in order to identify and put in place Scotland's first LEZ by 2018, as per the commitment in Scottish Government's Plan for Scotland 2016 -17.

At the Scottish Air Quality Seminar in January 2017 a number of Scottish local authorities expressed support for participating in the first ever National Clean Air Day (NCAD) which took place on 15 June 2017, and seeks to improve the public's understanding of air pollution, and how to contribute to improving air quality. To ensure this awareness day reaches and resonates with Scotland's public, Scottish Government is working with partners including Global Action Plan and SEPA to develop Scotland-specific materials for use by local authorities and CAFS partners.

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



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