

Part IV of the Environment Act 1995 Local Air Quality Management

Policy Guidance

PG (S) (23)

March 2023

Local Air Quality Management Policy Guidance

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1: Introduction

Purpose of this guidance

1.1 This guidance is intended to help local authorities with their local air quality management (LAQM) duties under Part IV of the Environment Act 1995¹. It sets out:

- the statutory background and the legislative framework within which local authorities have to work;
- the principles behind reviews and assessments of air quality and the steps that local authorities should take;
- how local authorities should handle the designation, amendment and revocation of Air Quality Management Areas (AQMAs) and the drawing up and implementation of action plans;
- suggestions for taking forward the development of local air quality strategies;
- suggestions on how local authorities should consult and liaise with others;
- the role of transport-related measures in improving air quality;
- the general principles behind air quality and land use planning;
- the effects of biomass on air quality; and
- the relationships between air quality and noise policy.

1.2 This guidance is issued by the Scottish Ministers under section 88(1) of the 1995 Act. Local authorities should have regard to it when undertaking their LAQM duties, as required under section 88(2) of the Act. The guidance should be taken into account by all local authority departments involved in LAQM, including environmental health, corporate services, planning, economic development and transport planning. The guidance complements the information and advice contained in *Cleaner Air for Scotland 2 – Towards a Better Place for Everyone* (CAFS2)², which was published in July 2021, and these documents should therefore be read in conjunction.

1.3 The guidance on air quality and land use planning, in particular, should be read together with National Planning Framework 4 (NPF4)³ and Planning Advice Note (PAN) 51: *Planning, Environmental Protection and Regulation*⁴. The guidance may be material in preparing development plans and in determining planning applications. It will also be of interest to others involved with LAQM, and those whose actions may impact on local air quality.

¹ Separate policy guidance is issued in England and Wales, and in Northern Ireland (PG 22). The technical guidance that accompanies this guidance covers the whole of the UK (TG 22).

² [Cleaner Air for Scotland 2 - Towards a Better Place for Everyone](#)

³ [Approved NPF4 | Transforming Planning](#)

⁴ [Planning Advice Note 51](#)

1.4 The Scottish air quality website and database⁵ provides a wide range of resources to support local authorities in their LAQM work, and authorities are strongly encouraged to make full use of this.

1.5 SEPA has an important role to play in LAQM through the control of emissions to atmosphere from regulated industrial processes, the provision of information on these processes, providing air quality modelling and data analysis to deliver the National Modelling Framework (NMF) and as a statutory consultee on air quality review and assessment reports and action plans. In addition, SEPA acting with the approval of Scottish Ministers, has reserve powers under section 85 of the 1995 Act to require local authorities in Scotland to take action where they are failing to make sufficient progress. Subject to this approval SEPA may issue directions to local authorities requiring them to take any or all of the following steps:

- Carry out an air quality review and assessment under section 82 of the 1995 Act;
- Repeat an air quality review and assessment in whole or in part;
- Make an order designating an AQMA;
- Revoke/modify any order;
- Prepare an action plan;
- Modify any action plan; and
- Implement any actions in an action plan.

Scottish Government and SEPA work, as far as possible, with local authorities to ensure the requirements of the 1995 Act are fulfilled satisfactorily. If a local authority is experiencing problems or delays with meeting the requirements of LAQM they should contact SEPA and the Scottish Government. Where a local authority is manifestly failing to carry out its duties, without reasonable excuse, the Scottish Government expects SEPA to approach the Scottish Ministers to put its reserve powers into effect and issue directions to local authorities.

1.6 This policy guidance, the accompanying technical guidance (TG (22)) and CAFS2 are the primary guidance documents to which local authorities should have regard when carrying out their air quality review and assessment work. This guidance replaces the previous LAQM policy guidance published in March 2016 (and revised April 2018).

⁵ [Air quality in Scotland website](#)

Review of Local Air Quality Management

1.7 'Cleaner Air for Scotland 2 – Towards a Better Place for Everyone' was published in July 2021, setting out the air quality policy framework to 2026. Amongst the wide range of actions included in the strategy is a commitment to review the LAQM policy guidance to take account of developments since the last update in 2016.

1.8 In November 2021 Environmental Standards Scotland (ESS) announced its first investigation would consider air quality, specifically focusing on compliance with the nitrogen dioxide limit value set in Directive 2008/50/EC on ambient air quality and cleaner air for Europe, which forms part of retained law following the UK's exit from the European Union.

1.9 Three of the six recommendations made by ESS following their investigation are to strengthen the effectiveness of the LAQM regime in place to improve air quality in Scotland. The revisions made to this LAQM policy guidance incorporate the ESS recommendations to strengthen the LAQM regime.

1.10 A short life working group with members including local authorities and SEPA was established to support Scottish Government in reviewing the LAQM policy guidance.

Resources

1.11 Since 1997/98, resources have been made available in the local government finance settlement to help local authorities with their duties under the 1995 Act. This provision is not ring-fenced however and decisions on expenditure are entirely a matter for local authorities, in the light of their statutory duties and local circumstances. The amount of provision made available to each local authority varies depending on factors such as the population and area of the authority.

1.12 From 1 April 2008 a further non ring-fenced allocation has been made as part of the General Capital Grant introduced following the signing of the Concordat between the Scottish Ministers and the COSLA Presidential Team in November 2007. This replaces the former air quality monitoring capital grant scheme. Additional funding support is provided, again from 1 April 2008, for work connected with AQMAs and action plans. This is allocated on an annual basis through an application system.

2: Local Air Quality Management

2.1 Part IV of the Environment Act 1995 requires the UK Government and the devolved administrations to publish an Air Quality Strategy and establishes the system of LAQM.

Air quality objectives

2.2 The air quality objectives set out in the Air Quality (Scotland) Regulations 2000, the Air Quality (Scotland) Amendment Regulations 2002 and the Air Quality (Scotland) Amendment Regulations 2016 provide the statutory basis for LAQM. The regulations also prescribe the dates for meeting air quality objectives. The objectives are set out in Table 2.1.

2.3 Under the 1995 Act, local authorities are required to regularly review and assess air quality in their areas against these objectives. Local authorities have to consider the current and likely future air quality in their areas, and assess whether the objectives are likely to be achieved by the due dates. Local authorities also have a duty to continue to work towards meeting the air quality objectives beyond the deadlines set out in the regulations. For example, an objective which was due to be met by 2005 must also be met in every subsequent year.

Table 2.1 – Air quality objectives prescribed in regulations for LAQM purposes in Scotland

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration ¹	Measured as	
Benzene	16.25 µg/m ³	running annual mean	31.12.2003
	3.25 µg/m ³	running annual mean	31.12.2010
1,3 Butadiene	2.25 µg/m ³	running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m ³	running 8-hour mean	31.12.2003
Lead	0.5 µg/m ³	annual mean	31.12.2004
	0.25 µg/m ³	annual mean	31.12.2008
Nitrogen dioxide ²	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m ³	annual mean	31.12.2005
Particulate matter (PM ₁₀)	50 µg/m ³ not be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 µg/m ³	annual mean	31.12.2010

Particulate matter (PM_{2.5})	10 µg/m ³	annual mean	31.12.2020
Sulphur dioxide	350 µg/m ³ not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m ³ not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m ³ not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

Review and assessment reporting

2.4 Local authorities are required to produce an Annual Progress Report (APR) detailing their review and assessment work in the previous calendar year. A template has been developed which provides guidance on how to conduct, complete and submit the APR and this is available on the Report Submission Website (RSW)⁶.

2.5 Given that LAQM has now been in place for over 20 years, the assumption is that most hotspots will have been identified. However, it is recognised that new issues will from time-to-time arise that require more detailed investigation. Local authorities are encouraged to incorporate such investigations into their routine review and assessment work, action planning and annual progress report as far as possible. If a local authority feels that this is not appropriate or feasible, the option to undertake a separate more detailed investigation is available. The Scottish Government will consider these situations on a case-by-case basis, in discussion with the authority concerned. A local authority should proceed to a more detailed investigation as soon as a new issue is identified and not wait until the next annual review and assessment reporting cycle.

2.6 Local authorities are required to submit their APR to the Scottish Government and to other statutory consultees⁷ by the end of June each year. All air quality reports, must be submitted electronically via the Report Submission Website. If the Scottish Government does not accept the conclusion of a local authority's report, then the authority will be invited to provide written comments justifying their decision within a specified deadline set out in the appraisal letter. SEPA will also provide written comments on reports once they have been submitted.

2.7 Local authorities who wish to seek clarification on the findings of the appraisal process should in the first instance contact the LAQM Helpdesk for further advice. The LAQM Helpdesk can discuss the details of individual cases and provide advice

⁶ [LAQM Portal](#)

⁷ Statutory consultees are: the Scottish Ministers; SEPA; Transport Scotland; neighbouring local authorities; any National Park authority; other public authorities; local business; and others as appropriate (including the public).

on responding to any points raised in the appraisal. Details are provided in Table 2.2.

Table 2.2 – Helpdesk for Local Authorities

Helpdesk	Operated by	Contact Details
Review & Assessment, Action Planning, Report Submission Website	Bureau Veritas	0800 032 7953 LAQMHelpdesk@uk.bureauveritas.com

Late submission of reports

2.8 The Scottish Government accepts that there will often be legitimate reasons for late submission. In such cases, authorities should contact the Scottish Government and SEPA at the earliest opportunity so that a revised submission date can be agreed. Where no such contact is made (and in cases where the revised deadline is missed with no further contact) SEPA, with the support of the Scottish Government, will follow a system of reminder and warning letters (Tables 2.3 and 2.4). The same system will also be used for outstanding air quality action plans.

Table 2.3 – Reminder and warning letters for annual progress reports

Timescale	Month*	Enforcement level
Report two months overdue	August	Reminder
Report three months overdue	September	Warning letter
Report four months overdue	October	Final warning letter
Report six months overdue	December	Section 85 direction

* Or agreed revised deadline

Table 2.4 – Reminder and warning letters for action plans

Timescale	Months past AQMA designation or completion of scheduled review*	Enforcement level
Action plan two months overdue	14 months	Reminder
Action plan three months overdue	15 months	Warning letter
Action plan four months overdue	16 months	Final warning letter
Action plan six months overdue	18 months	Section 85 direction

* Or agreed revised deadline

The Scottish Government expects that the reserve powers available to SEPA should be used routinely once the three warning levels issued to local authorities have been missed.

Air quality action plans

2.9 Whenever one or more of the air quality objectives has not been met by the required date, or is in danger of being exceeded, the local authority must declare an AQMA, covering the geographical area of concern. The authority must then prepare and publish an action plan within the shortest possible time following declaration of an AQMA and no later than 12 months post declaration. The action plan must outline how the local authority intends to tackle the issues identified and achieve compliance with the failing objectives in the shortest possible time. The procedure and timescales for producing an action plan are contained in section 6. Local authorities are not legally obliged to meet the objectives, but they must demonstrate that they are taking all reasonable steps in working towards them.

Role of regional groupings

2.10 Under section 56 of the Local Government (Scotland) Act 1973, two or more local authorities can act jointly to manage air quality. For example, authorities can co-operate to carry out review and assessment across their combined areas. Subsequently they can declare a single AQMA made up from neighbouring areas of each authority and prepare a joint action plan. Where joint AQMAs are designated however, it may be appropriate for each participating authority to lay its own designation order. Authorities can also choose to carry out separate reviews and assessments but declare a joint AQMA. SEPA, with the agreement of the Scottish Ministers, may use the reserve powers in section 85 of the 1995 Act where co-operation between local authorities is essential for the purposes of LAQM but for whatever reason cannot be achieved.

2.11 The Scottish Government also attaches great value to the local pollution control liaison groups (PCLGs). These groups play a vital role by allowing environmental health officers across authorities to work closely together, and share resources and best practice. The Scottish Pollution Control Co-ordinating Committee (SPCCC) is similarly important in acting as a national focus for the regional groupings.

3: Review and Assessment

3.1 Annual Progress Report (APR) templates are available on the Defra Report Submission Website. Examples of completed reports are available on the Review and Assessment helpdesk web site at: <http://laqm.defra.gov.uk/review-and-assessment/good-practice/examples.html>

Assessment of monitoring data

3.2 The minimum requirement is to report monitoring data and trends over recent years. It will also prove helpful to project the measured concentrations forward, using the guidance in LAQM.TG (22). This will provide early warning of likely exceedences that may not have been previously identified and also help to gauge progress on when the objectives are likely to be complied with.

3.3 The APR should provide a summary of all available monitoring data in a format suitable for comparison with the air quality objectives. For example, nitrogen dioxide data should be reported as annual mean concentrations, and where possible as the number of exceedences of the 1-hour objective value of 200 µg/m³. Reporting full hourly data, or full monthly data for diffusion tubes, is not necessary.

3.4 To maximise the value of air quality monitoring, careful attention should be paid to the type of equipment used and the locations where the monitors are placed, as well as the QA/QC and data verification procedures. Detailed guidance on these issues is provided in LAQM.TG (22), and reference should be made to this when setting up and operating monitoring equipment. Local authorities should also contact SEPA to discuss suitability of monitoring locations.

Matters to take into account when reporting monitoring data

3.5 When presenting automatic monitoring data, it should be made clear whether the results have been ratified (data should routinely be ratified by April prior to the APR being submitted). Information on data capture should also be provided.

3.6 Where data are available for fewer than nine months, then they should be adjusted to provide an estimate of the annual mean using the procedure set out in LAQM.TG (22) and adjustment factors available on the LAQM Portal.

3.7 To help understand the results, the type of monitoring site should be specified. For roadside sites the distance from the kerb should be provided. For industrial sites the distance to the source(s) should be specified. This information could be provided as an Appendix to the main report.

3.8 Where nitrogen dioxide diffusion tube data are provided, it should be made clear whether the results have been adjusted for laboratory bias. Where they have been adjusted, brief details should be provided of the adjustment factor used and its source. Details should also be provided of the laboratory being used, the tube preparation method and the exposure period.

3.9 Summary information should be provided on QA/QC.

3.10 Where results are presented for new monitoring sites, a description of the sites should be provided. This should include the reason they were set up, e.g. do they represent worst-case relevant exposure locations?

3.11 When describing sites, it should be made clear whether they represent relevant exposure. For instance, if the site is kerbside, it would be appropriate to say that “the nearest relevant exposure is residential properties set back 5 m from the kerb.”

3.12 For short-term objectives, e.g. 1-hour for nitrogen dioxide, the results should be presented as number of hours (or 15-mins for sulphur dioxide, or days for PM10) above the objective value. This should only be done where data capture is >90% of a full year. If data capture is <90% or monitoring is for less than a full year, then it is only appropriate to present the results as percentiles. The following percentiles roughly equate to the objectives: 99.8th percentiles for 1 hour nitrogen dioxide; 99.9th percentiles for 15-min sulphur dioxide; 99.7th percentiles for 1 hour sulphur dioxide; 99.2nd percentile for 24-hour sulphur dioxide; and 90th percentile for PM10. Guidance on calculating percentiles is available in LAQM.TG (22).

3.13 When reporting results, a note should be made of any local or transient circumstances that may have affected the results, e.g. construction activities close to a PM10 monitor, or temporary changes in traffic flows during road works.

3.14 Evidence of any trends over recent years (including observations from during the COVID-19 Pandemic) should be reported. Care should be exercised in discussing trends, as changes in concentrations can occur from year-to-year due to weather conditions or local circumstances. It is normal practice to only consider a trend as being significant when five years’ worth of data are available, although a longer timescale may be appropriate for some pollutants, e.g. PM₁₀.

Minimum information to be included in the APR

3.15 New Monitoring Results:

- Present a map showing monitoring locations.
- Present summary tables of concentrations of regulated pollutants in a format to allow comparison with the objectives.
- Provide plots of summary data to show annual trends.
- Highlight results for new sites.
- Discuss trends taking in to account of number of years of available data.
- Project forward results using LAQM.TG (22) guidance.

3.16 New Local Developments:

- Identify and list new developments that may affect air quality.

3.17 Sources Outside of Local Authority Control:

- Identify sources that may affect air quality but be outside of the local authorities’ control such as SEPA-regulated activities and trunk roads.
- Where data/information may be required from other organisations such as that relating to PPC installations from SEPA or trunk roads from Transport Scotland local authorities should approach these organisations early in the process of drafting the APR. Previously, submission of APRs has been delayed by obtaining this information at a late stage in the process and this should be avoided in future.

3.18 Action Plans:

- List measures in action plan(s).
- Expected or actual completion dates for action plan measures.
- Measure status (planned, in progress, completed, delayed).
- Funding status.
- Key milestones for implementing action plan measures.
- Update on progress implementing measures.
- Barriers to implementation for delayed measures.

3.19 Measures to address air quality:

- Summarise measures in the strategies that have a direct bearing on air quality (Air Quality Strategies, Local Transport Plans, Planning Policy documents – (i.e. Supplementary Planning Guidance), Noise Action Plans and Climate Change Strategies).
- Report on progress with implementing these measure.

3.20 Planning and Policies:

- Log planning applications for new developments for which an air quality assessment is being provided.

Progress on implementation of action plans

3.21 Although local authorities can submit separate action plan progress reports, they must report on progress delivering action plan measures annually in the APR. Section 2 of the APR template allows the local authority to report on progress against milestones for action plan measures and their current status. More information on action plans can be found in section 6.

Reporting against actions contained within CAFS2

3.22 Local authorities are required to report on progress against any CAFS2 actions relevant to their local authority. In particular there are two specific actions which must be reported on:

Placemaking – Plans and Policies

- Local authorities with support from the Scottish Government will assess how effectively air quality is embedded in plans, policies, City Deals and other initiatives, and more generally in cross departmental working, identifying and addressing evidence, skills, awareness and operational gaps.

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Transport – Low Emission Zones (LEZs)

- Local authorities working with Transport Scotland and SEPA will look at opportunities to promote zero-carbon city centres within the existing LEZs structure. This reporting requirement will only apply to those local authorities with LEZs and will link to the action planning process being undertaken to implement LEZs.

Guidance on the types of information to be reported for CAFS2 actions is contained within the APR template.

4: Air Quality Management Areas

4.1 Local authorities have a duty under Section 83(1) of the 1995 Act to designate AQMAs where the air quality objectives are unlikely to be met by or met beyond the required date. AQMAs must be designated officially by means of an order.

Declaring an AQMA

4.2 When considering the decision to declare an area as AQMA the local authority should contact Scottish Government and SEPA to discuss any proposals. In general terms the local authority should provide as a minimum, details of:

- The description of the proposed AQMA and local pollution sources.
- Monitoring carried out in relation to the AQMA.
- Monitoring data for the area of the proposed AQMA demonstrating current, or likely, exceedences with the relevant air quality objectives.
- A recommendation for the proposed AQMA and a justification for authority's decision.

4.3 Much of the information to support declaration of an AQMA will be collected as part of the review and assessment process, however where more detailed assessments (or additional studies) have been conducted these may also be included as evidence to support the proposal for declaration of the AQMA.

Setting the boundaries of AQMAs

4.4 Setting the boundary of an AQMA involves an element of judgement. Boundaries can range from isolated buildings, junctions and lengths of road to the entire local authority area. Some local authorities have chosen to designate several AQMAs, each covering an area of concern, whereas others have included all such areas within one overall AQMA. It is thus for local authorities to decide on the boundaries for an AQMA, taking all relevant considerations into account and consulting as appropriate.

4.5 In deciding where to draw the boundaries of an AQMA, local authorities might wish to consider some of the following points:

- It may be administratively much simpler to designate a wider area, based on existing boundaries and natural features. This avoids the need to draw artificially precise lines on maps and also allows a more strategic approach to be taken.
- Wherever the boundaries of the AQMA are drawn, the measures contained in the air quality action plan are likely to need to cover a wider area.
- Designating a number of smaller AQMAs, rather than one single large area, can allow an authority to demonstrate progress by removing individual areas as air quality improves there.

- Declaring smaller AQMAs may also provide a clear focus on the hot spot locations within a local authority. This may prove particularly important for informing local authority planning processes.
- A more focused approach to declaring AQMAs may provide a better indication of where resources need to be allocated in terms of policy interventions.

What should an AQMA order look like?

4.6 The exact wording to be included in a AQMA designation order is at the discretion of the individual local authority. As a minimum requirement, local authorities are required to include a map showing the area to be designated (and surrounding area) and to include a description of the area. For example, a larger AQMA may be described according to its boundaries near to major roads/motorways. A smaller AQMA may need a more detailed description listing individual streets or other physical features. In some cases, it may be appropriate to list the individual streets or properties affected, but there is no legal requirement to do this. A template guide for forming the basis for drafting an AQMA designation order is available on request from SEPA.

4.7 It is also recommended that the order should include the date on which the AQMA comes into force and the objective/s for which the AQMA has been designated (e.g. NO₂ annual mean). Local authorities should notify the Scottish Government by submitting a copy of the order. Local authorities should ensure that the information is easily accessible for members of the public and other interested parties (both in electronic and hardcopy format). The local authority should also inform the administrators of the Air Quality in Scotland website at: [Contact | Scottish Air Quality](#) to ensure the AQMA database is updated. Some local authorities also include AQMAs within local land searches.

4.8 From date of commencement of the AQMA designation order, local authorities will have 12 months to produce and publish the accompanying air quality action plan. Action plans must be reviewed regularly and no later than every five years as outlined in Section 6.

4.9 An AQMA is intended as a short-term measure which should only remain in place for as long as is necessary for the air quality objectives to be met with certainty. Where an AQMA is no longer required, it should be revoked within the shortest possible time (criteria for revocation are described below) and by the date stated in the relevant air quality action plan.

Amendment to and revocation of an AQMA

4.10 Local authorities are able to amend or revoke an existing AQMA order at any time as set out under section 83(2) of the 1995 Act. Where an authority considers it necessary to do this, the Scottish Government expects the authority to consult SEPA and all other statutory consultees, businesses, members of the public and other interested parties in the vicinity of the AQMA. All available supporting information to justify the amendment or revocation should be provided to the Scottish Government before any changes take effect (and this should take the form of a revocation proposal report – as outlined below). A local authority may submit a proposal to amend or revoke an existing AQMA order at any time.

4.11 There are no set criteria on which an amendment or revocation decision will be based, and the Scottish Government considers each request on a case-by-case basis. A minimum requirement however will normally be at least three consecutive years where the objectives of concern are being achieved and where monitoring data demonstrates that further exceedances of the objectives are unlikely to occur. This monitoring data and information will be routinely collected through the review and assessment process and where required, additional monitoring and modelling studies. A specific detailed assessment for the AQMA is not specifically required to be conducted to proceed with AQMA amendment or revocation.

4.12 There is an expectation that once the authority has demonstrated that the AQMA is in compliance with the air quality objectives (with confidence that future exceedances are unlikely) the AQMA order will be amended or revoked at the earliest opportunity (shortest possible time) as set out above and no later than the date set out in the relevant action plan.

4.13 The content of an amendment or revocation proposal report should usually contain as a minimum, details of:

- The description of the AQMA and local pollution sources.
- Monitoring equipment and locations in relation to the AQMA.
- Monitoring data for the AQMA demonstrating compliance with the relevant air quality objectives for at least three consecutive years, with sufficient confidence to ensure further exceedances of air quality objectives are unlikely.
- A recommendation and justification for the authority's decision.
- Where a more detailed assessment (or additional studies) has been conducted this may also be included as evidence to support the proposal for amendment or revocation of the AQMA.

4.14 Template documents that can form the basis for conducting an amendment or revocation of an AQMA order are available on request from SEPA. Much of the information required for the amendment or revocation proposal report can be found in existing APRs and the intention is this information should be used (rather than requiring new or additional work to be carried out).

4.15 Where the proposed revocation or amendment is accepted by the Scottish Government, local authorities will be expected to take the necessary action within four months following receipt of comments. Where an AQMA is revoked, the authority should modify an existing local air quality strategy or maintain an air quality action plan for the affected area(s) to ensure air quality issues maintain a high profile locally and to respond to any public expectations (details on air quality strategies can be found in section 7). Such a strategy or plan could incorporate measures designed to tackle climate change or be incorporated into a local climate change strategy. It could also cover the linkages between air quality and wider environmental sustainability issues.

Notification of amendment or revocation of an AQMA

4.16 Once an amendment or revocation of an AQMA has taken place, the local authority should submit the order to the Scottish Government for information. Local authorities should also notify SEPA and other statutory consultees and publicise the amendment or revocation widely through local media so as to ensure that the public and local businesses are fully aware of the situation. These notifications should take place within one month of the amendment or revocation of the AQMA order coming into effect.

4.17 The local authority should also inform the administrators of the Air Quality in Scotland website at: [Contact | Scottish Air Quality](#) to ensure the AQMA database is updated accordingly.

Funding for AQMAs post-revocation

4.18 As outlined above, there is an expectation that action plans will continue to be implemented or air quality strategies will be developed for areas previously declared as AQMAs. As such, the funding routes from Scottish Government for air quality action planning will continue after any AQMA revocations take place, to help ensure that air quality improvements are maintained.

5: Air quality assessment following AQMA declaration

Overview

5.1 Once an AQMA has been declared, an assessment to provide the technical justification for the measures an authority intends to include in its action plan will normally be required. This will allow authorities to:

- Calculate more accurately how much of an improvement in air quality will be needed to achieve the air quality objectives within the shortest possible time in the AQMA.
- Refine their knowledge of the sources and their contributions to pollution so that air quality action plans can be properly targeted.
- Take account of national policy developments which may come to light after the AQMA declaration.
- Take account as far as possible of any local policy developments which are likely to affect air quality, and which were not fully factored into earlier assessments. These might include, for example, changes to national or local planning policy, the implications of any new transport schemes that are likely to be implemented in or close to the AQMA, or of any new major housing or commercial developments.
- Carry out new or additional real time monitoring; and
- Respond to any comments made by statutory consultees on any aspect of the AQMA declaration process, particularly where these have highlighted that insufficient attention has been paid to, for example, the validation of modelled data.

5.2 In many cases, authorities will already have done some of the necessary work as part of routine review and assessment or specific studies undertaken to inform AQMA declaration. They may already have a reasonably clear idea of which sources are responsible for the air quality problem and may already have calculated how much of an emissions reduction from each source would be necessary to achieve compliance with the objectives of concern. In these cases, relatively little additional work will be required, although authorities will still be required to show that they have considered the possible impact on the AQMA of subsequent local and national developments.

5.3 This assessment work should be taken forward in parallel with the development of the action plan, allowing authorities to model the likely effects of particular policy measures, such as the introduction of a LEZ or other traffic management schemes. As well as modelling the impact of particular measures on emissions and ambient air quality, authorities should also show that they have given due consideration to their likely costs and benefits and timescales for implementation and completion of measures. The assessment should demonstrate that authorities have considered a range of options and chosen the most cost-effective solutions to achieve the air quality objectives within the shortest possible time.

National Low Emission Framework (NLEF)

5.4 Local authorities that have declared Air Quality Management Areas (AQMAs) should have regard to the NLEF when developing their air quality action plans. The NLEF⁸ is intended to support and complement the existing LAQM system and assist local authorities to determine whether an LEZ is appropriate to address air quality issues in their area.

5.5 The NLEF process will be undertaken by all local authorities with a new AQMA or where circumstances have changed substantially in an existing AQMA and where transport emissions are the primary reason for declaration. Results of the NLEF screening and, where appropriate, assessment processes will be reported in the APR.

Calculating how much of an improvement is necessary inside an AQMA

5.6 A local authority must also show that it has calculated the reduction in emissions required to achieve the objective/s of concern within the shortest possible time. Having done this, the authority will be better placed to consider whether the measures proposed to achieve these reductions are proportionate and cost effective. It is important to note that a reduction of 10% in total emissions will not necessarily result in a 10% improvement in ambient air quality, because this fails to take account of background concentrations and also the complex atmospheric chemistry involved in, for example, the conversion of NO_x to NO₂.

Source apportionment

5.7 One of the most important elements of the technical assessment is the consideration of the extent to which different sources contribute to the problem. For example:

- Is road transport entirely to blame for the exceedence of an NO₂ objective, or is there a significant contribution from an industrial/another commercial source?
- To what extent do other sources contribute (for example, aircraft or train movements)?
- Within the road transport sector, to what extent are different classes of vehicle responsible for the emissions?
- Does the traffic in the whole urban area contribute more to the exceedence than the nearby road?
- Are sources outside of the authority's immediate area contributing to any significant extent?

5.8 Only when an authority has a reasonably clear idea of the total breakdown of emissions from all sources can it draw up an appropriately targeted action plan. It will not always be possible to do this with absolute precision, and variabilities in between year meteorological conditions will also have an effect on the relative contribution from different sources (including background or transboundary

⁸ [National low emission framework - gov.scot \(www.gov.scot\)](http://www.gov.scot)

contributions). Authorities must show that they have calculated, in percentage terms, the extent to which different sources are responsible for any forecast exceedences. This will allow consultees to form a view on whether the action plan is proportionate, properly targeted and fit for purpose.

5.9 If a source over which an authority has little control (such as aircraft, or support vehicle, movements within the periphery of an airport) is responsible for a significant percentage of local emissions, an authority should not demand disproportionate emissions reductions from other sources in pursuit of the objectives. Instead, it should note in its action plan that it has done all it reasonably can to bring about reasonable and proportionate emissions reductions from those sources over which it has any influence, but that further emissions reductions are required from other sources before the objectives can be achieved. The action planning section describes how local authorities should engage with other organisations who may be responsible for providing additional emission reduction measures which are required to help work towards meeting the objectives.

Taking account of policy changes

5.10 In many cases, central government policy developments may affect the designation of an AQMA or the extent to which local actions are necessary to achieve the prescribed air quality objectives. Possible examples include:

- Changes to nationally prescribed air quality objectives, which may themselves reflect changes to European Union (EU) limit values- or World Health Organisation (WHO) Guideline Values.
- Scientific and technical developments, such as changes to the emissions factors to be used in certain calculations.
- Major policy developments such as those encouraging take up of renewable energy or new planning policies.
- The introduction of new powers for local authorities.
- Measures to promote the use of cleaner fuels, which might affect the composition of the total vehicle fleet.
- Decisions on major planning cases, such as the location of a new bypass, or the siting of new airports or runways.
- Developments in the industrial pollution control framework.

Further monitoring

5.11 In many cases, local authorities will have based their AQMA designation on the results of a relatively short monitoring period, or entirely on the results of their modelling. In practice, even where at least twelve months' worth of monitoring data were available at the time of designation, there may still be uncertainties associated with the results. Sometimes, authorities will have diffusion tube data covering a long period, but only a limited set of results from a continuous monitor. Local authorities may therefore wish to carry out additional monitoring at key points to validate earlier findings and/or commit to ongoing monitoring as part of the action plan. Low-cost sensors have an important role to play in this process and further information on their use can be found in LAQM. TG (22).

5.12 Following on from this, the designation of an AQMA will often have been based on a large number of assumptions (such as that traffic flows along a particular road are at a particular level). Additional assessment during action plan preparation is an opportunity to test these assumptions, in order to ensure that they are as accurate as possible.

Costs and benefits

5.13 A key element of the action plan will be an estimate of the costs, benefits and feasibility of different abatement options to allow for the development of proportionate and effective measures. The cost benefit analysis should cover both health and environmental considerations, besides the financial cost of any measures for the local authority and other affected parties. The options selected for taking forward in the plan should be reported on in action plan progress reports as part of the APR process.

6: Air quality action plans

6.1 Once a local authority has declared an AQMA, under Section 84 of the Act it must then prepare and implement an air quality action plan within the shortest possible time and no later than 12 months post declaration. Action plans must outline how the local authority intends to tackle the issues identified. Air quality action plans must focus on effective, feasible, proportionate and quantifiable measures which will contribute to reducing levels of air pollution within AQMAs and ensure that air quality objectives are achieved within the shortest possible time.

6.2 Lengthy descriptions of the LAQM system are not necessary and action plans should be as concise as possible and targeted towards ensuring appropriate measures are taken to improve air quality and meet objectives within the shortest possible time, and that progress on these measures can be reported on quantitatively as well as qualitatively on an annual basis through the APR process.

6.3 Action plans should be produced in conjunction with the findings of the review and assessment process, source apportionment studies and any additional work which may have been carried out and progress reported on through the APR.

What to include in an action plan

6.4 There is no need to provide detailed background information on the local authority's duties under Part IV of the Environment Act 1995 in the introduction to the action plan. It is enough to simply state that 'this action plan has been developed in recognition of the legal requirement on the local authority to work towards air quality objectives under Part IV of the Environment Act 1995 and associated regulations.' The statutory background should already have been adequately covered in APRs, which can be referenced in the action plan.

6.5 The action plan itself should have a more practical focus detailing specific measures to improve air quality and quantifying their impact in reducing contributions to air pollution over time. Data collected in the review and assessment process and from source apportionment studies should be used to quantify the potential impacts on emissions of particular measures and this information used to assist in the prioritisation process. Individual measures should be provided with milestones (for both total time and stages of the measure being implemented) and a final date for completion.

6.6 The action plan itself should have a timescale for completion and for final revocation of the AQMA. The timescale for revocation should be within a short as possible time and no longer than the expected completion date of the longest-term action plan measure. Where measures to reduce air pollution may require a longer timescale than initially anticipated, an action plan shall be reviewed and republished within five years of initial publication and then five-yearly thereafter. With each new action plan the date for revocation of the AQMA shall be reviewed and revised, with a justification provided for the decision.

6.7 An air quality action plan should include, as a minimum, the following:

- A demonstration that the local air quality issues are clearly understood.
- Where a screening exercise has been carried out under the National Low Emissions Framework (NLEF) the findings and conclusion of the assessment process.
- A quantification of the source contributions to the predicted exceedences of the objectives for each pollutant being considered (allowing the action plan measures to be effectively targeted).
- Evidence that all available options have been considered on the grounds of time for implementation and effect, cost effectiveness and feasibility.
- How the local authority will use its powers and also work in conjunction with other organisations in pursuit of the air quality objectives.
- Clear timescales in which the authority and other organisations and agencies propose to implement the measures within the plan and by which time they should have demonstrated the required reductions in air pollutants.
- Expected date of completion of each of the proposed measures and the expected date for revocation of the AQMA(s).
- Funding status (e.g. frequency/percentage of cost covered/match funding availability) and funding source of the proposed measures.
- Quantification of the expected impacts of the proposed measures and, where possible, an indication as to whether the proposed measures will be sufficient to meet the objectives (in the current action planning cycle).
- How the local authority intends to monitor and evaluate the effectiveness of the individual measures and the action plan as a whole.

6.8 The 1995 Act does not prescribe any timescale for preparing an action plan. However, the Scottish Government expects action plans to be completed, published and implemented within the shortest possible time and no later than 12 months of the date of the AQMA designation order.

6.9 Where more than one AQMA is being considered the local authority may submit either individual or combined action plans depending on what is most appropriate for the local circumstances. Where individual action plans are developed, each must follow the guidance and processes described in this section.

Partnership working

6.10 Local authorities should take a joined-up approach towards the action planning process, which should involve environmental health, climate change/sustainability, planning, transport and corporate services departments, besides any other parts of the authority that may have a role to play in contributing to meeting the air quality objectives.

6.11 Some local authorities will also need to work with neighbouring authorities due to the nature of the air quality problem, or because measures they wish to take may have effects elsewhere. In such cases, the Scottish Government strongly recommends that consideration be given to developing regional air quality action

plans. Action plans should also take account of other related strategies and plans such as Regional/Local Development Plans, Local Transport Strategies and Environmental Noise Action Plans which may help contribute to improving air quality and also have co-benefits in other policy areas.

Setting up an action plan steering group

6.12 Local authorities may wish to set up a steering group to take forward the development of an action plan. The members of the steering group should include representatives from all the relevant local authority departments and may include officers from different local authorities, or other organisations such as Transport Scotland, Public Health Scotland, NHS Health Boards and SEPA. The steering group should also decide on how to communicate and engage support from local businesses, community groups, the general public and other interested parties to take the process forward.

6.13 A number of commercially available models exist to help local authorities develop integrated action plans. Details of these are held by the LAQM Helpdesk (contact details in Table 2.2), which can advise on their applicability and relevance to authorities' individual circumstances.

Actions outside a local authority's control

6.14 Some of the actions needed to improve air quality may be outside the local authority's direct control. This is the case where, for example, there may be an air quality problem arising from the operation of an airport, a port, an industrial process regulated by SEPA is contributing to air quality objective exceedences, or where high levels of pollutants exist as a result of motorways or trunk roads, regulated by Transport Scotland. SEPA and Transport Scotland are committed to the LAQM process, and both are required to help local authorities develop their action plans and suitable measures in pursuit of the air quality objectives. This commitment should also apply where other operators/businesses or local authorities may hold responsibility for part, or all, of an air quality problem.

6.15 Where the local authority has conducted a source apportionment exercise to identify sources of pollution and identified the source as being outside of its control, the local authority will contact the outside body/bodies who may be responsible for controlling the emission source. The local authority and the outside body/bodies should establish agreement on the relevant source of pollution (and level of contribution) and that any measures (and potential scope of measures) are within the influence or control of the outside body/bodies. Where such a situation occurs there is an expectation that the local authority will lead on joint working which will take place with Transport Scotland, SEPA, businesses or neighbouring local authorities to determine suitable actions to address the air quality problem. This form of working may be part of the action plan steering group or may be carried out separately and feed into the action plan development process.

6.16 Some of the types of measures which can be used to by outside bodies to assist local authorities include:

- Conducting additional monitoring and data collection to develop further knowledge of the origin, contributions of emission sources and likely measures.
- Providing easy and accessible data and information relating to emission sources.
- Setting up a working group with relevant partner organisations and operators, local community groups (this can be similar or complimentary to the action plan steering group).
- Reviewing permit or operational conditions.
- Identifying transport problems on trunk roads leading to poor air quality and developing measures to resolve them.
- Developing alert systems for investigation of air pollution episodes.

6.17 Outside bodies assisting the local authority must commit to collaborating and providing action plan measures (and where necessary resources) and must supply a date by which the measures will be fully implemented. They must also provide a commitment to ensure appropriate measures are determined in sufficient time to allow the lead local authority to meet the timescales for publishing an action plan.

6.18 Local authorities should also make clear any limitations in their action plans and show the extent to which they rely on actions by outside bodies and the Scottish and UK Governments, to work towards meeting the objectives. The action plan should clearly show how other outside bodies have been involved in its development and where measures contained within the action plan are the responsibility (whether partly or solely) of others to meet.

Keeping the action plan under review

6.19 Local authorities have a duty to keep their action plans up to date. Section 84(4) of the 1995 Act states that an authority may from time-to-time revise an action plan. The Scottish Government now requires that all action plans are reviewed and republished on a five-yearly cycle from date of initial publication or from the date specified above (for current action plans). Where the circumstances change significantly within the AQMA this should trigger an automatic review of the action plan for appropriateness (to ensure measures will achieve compliance within as short a time as possible). Whenever an action plan is revised, local authorities must consult the Scottish Ministers and other statutory consultees (as outlined in schedule 11(1) (c) of the 1995 Act).

6.20 All existing action plans (whether published or in draft) require to be reviewed and revised in light of this guidance and the Scottish Government will expect plans to be completed, published and implemented within the shortest possible time and no later than 12 months from the date of publication of this note.

6.21 Air quality actions plans will require to be reviewed and republished on a five-yearly cycle from date of initial publication or from the date specified above in

paragraph 6.20. A local authority should allow 12 months for the full action plan review process to take place and to ensure the revised action plan is republished within the five-yearly cycle.

6.22 Where a local authority considers there is a need for new, further or different measures to be taken in order to achieve air quality objectives within the shortest possible time; or if significant changes to sources or circumstances occur within the AQMA, or the local area, this should trigger an automatic review and revision of the action plan. In this situation, the local authority must complete, publish and implement the revised action plan within the shortest possible time and no later than 12 months from the date of the review process starting. Local authorities should notify Scottish Government where an early review of an action plan is required outlining the circumstances, reasons and timescales for the review.

6.23 In order to ensure that local authorities implement the measures within an action plan by the timescales stated within that plan, the Scottish Government expects authorities to submit updates on progress through the APR process. The APR update should list the measures within the action plan and include the timescales by when they are/were due to be implemented and give an update on progress in terms of implementation (including milestones or where measures have been completed). Where an action plan measure is not achieving the desired reduction in emissions, and/or has been delayed, this must be investigated by the authority and a remedial action provided to address the problem. This will then become part of suite of action plan measures and must be included when conducting future reviews of action plans. The criteria for submission of APRs is contained in section 3 of this guidance document and the APR template has been updated to capture this requirement.

Action plans following revocation of an AQMA

6.24 Following revocation of an AQMA the local authority should consider replacing the air quality action plan (which has served its purpose) with a local air quality strategy (see section 7 for details on air quality strategies) to ensure air quality retains a high public profile and measures remain in place to continue to improve air quality in the area and prevent any future deterioration towards exceedances of the air quality objectives. This may be part of a wider air quality strategy which covers parts of, or the whole, local authority area. Where an air quality strategy is not deemed appropriate an air quality action plan should remain in place.

6.25 Where an air quality strategy is developed the ongoing measures contained in the final air quality action plan should form the basis of the relevant content of the strategy, but consideration should also be given to wider air quality in the local authority area and the strategic approaches required to ensure the authority maintains compliance with the air quality objectives and continues to reduce emissions.

6.26 As action plan measures will continue to be implemented through air quality strategies for areas previously declared as AQMAs, the funding routes from Scottish Government will continue to remain available after any AQMA revocations take place, to help ensure that air quality improvements continue or are maintained. This

will include access to funding for both monitoring equipment and development and implementation of measures.

7: Local and regional air quality strategies

7.1 Local authorities do not currently have a statutory obligation to prepare or adopt a local air quality strategy. The Scottish Government, however, recommends that all authorities, particularly those that have previously designated (now-revoked) AQMAs or who have not had to designate AQMAs but have areas close to the exceedence levels, or recognised air quality issues, should consider developing such a strategy. The Government considers it important that all authorities commit themselves to ensuring that air pollution remains below objective levels. Even local authorities with very good air quality may wish to develop local air quality strategies in order to maintain these standards and which may also help contribute to other requirements the authority is required to meet.

Why adopt a local air quality strategy?

7.2 There are many benefits of developing a local air quality strategy, in particular they can:

- Emphasise the local authority's role in delivering cleaner air and, by setting an example, can encourage others to take action.
- Raise the profile of air quality within a local authority, thus keeping key issues high on the agenda of elected members.
- Help authorities handle air quality in a corporate and multi-disciplinary way – allowing authorities to take air quality considerations properly into account in all their wider policy areas, such as land-use planning, transport planning, sustainability and energy efficiency, waste management, economic development, and regeneration.
- Raise the profile of air quality in the local community and encourage public engagement and behaviour change.
- Help to encourage co-ordination between air quality, noise and climate change policies.
- Be linked to other local initiatives such as community plans.
- Help authorities build up partnerships with local businesses, industry and communities.
- Encourage people to contribute to improvements in local air quality.
- Lead to greater co-operation with neighbouring authorities and strengthen the role of regional groupings.
- Support and feed into any action plans that might be needed in future.

7.3 An air quality strategy also has an important role to play where a previously declared AQMA has been revoked. The air quality strategy can continue the work of the action plan, ensuring suitable measures remain in place, and are developed in the future, to maintain emissions reduction across the authority area and compliance with the air quality objectives.

How to develop a local air quality strategy

7.4 In developing a local air quality strategy, local authorities will wish to follow the same broad principles for developing an air quality action plan. Local authorities should therefore read this chapter in conjunction with section 6 on action plans.

Setting up a steering group

7.5 As with developing an action plan, the Scottish Government recommends that local authorities should set up a steering group to take forward the process of developing a local air quality strategy. This group should consist of officers from relevant departments within the local authority and may include officers from other neighbouring authorities (where a regional air quality strategy is being considered). An air quality strategy steering group should operate on the same broad principles as an action plan steering group, but due to the strategic nature should consider a wider breadth of interests, membership and involvement across the local authority and partner organisations.

Co-operation and liaison within an authority

7.6 The Scottish Government recommends that local authorities should take a multidisciplinary approach to LAQM. There should be effective links between all the relevant local authority departments. The local authority environmental health department should ideally lead and co-ordinate liaison and discussions with other relevant departments and set up meetings to discuss how air quality considerations can be taken into account in other policy areas relevant to the authority, including development plans, local transport plans, economic development plans and strategies, and climate change/sustainable development strategies.

A local authority's own contributions to improving air quality

7.7 Many local authorities already run at least some of their vehicles, or those of their contractors, on alternative fuels and can use vehicle purchase or hire agreements to specify emissions standards. Authorities can also lead the way in developing travel plans for their staff by encouraging them to use public transport, where possible, instead of travelling to work by car.

7.8 Local authorities can use green purchasing policies to specify the use of locally sourced products, thereby reducing transport requirements. They can also increase their energy efficiency by reducing emissions from large boiler plants in their buildings, increasing building estate efficiency and set environmental conditions in their service contracts with outside contractors.

7.9 The Scottish Government is keen that local authorities should continue to act as a catalyst in this way and to communicate their commitment to delivering cleaner air from their operations in the local air quality strategy. This will be the basis for encouraging other organisations and businesses in the area to develop their own strategies to bring about improvements in air quality.

Co-operation between local authorities

7.10 Even where the effects of air pollution are localised, the solution may need to be developed, implemented and operate at a larger scale and therefore involve more than one local authority. Where strategic planning or traffic management is the answer to an air quality problem, different departments of local authorities will need to co-operate. There will also be cases where the activities of one local authority (for example, in traffic management or land-use planning) may have air quality implications not just for neighbouring authorities but also for others situated further away.

7.11 It is therefore important when developing a local air quality strategy to discuss it with neighbouring authorities or those within any regional groupings. Other authorities in the region may have already drawn up an air quality strategy and it can be useful to share experience. This level of co-operation can help strengthen links between authorities in regional groupings. The Scottish Government recommends that local authorities should look to support from neighbouring authorities in drawing up their local air quality strategies and should consider developing joint air quality strategies, where appropriate.

Co-operation with outside bodies

7.12 Many local air quality problems cannot be solved by local authority action alone. The success of a local air quality strategy depends upon co-operation with other sectors. Local authorities may wish to include in their strategies a framework for co-operation with:

- The Scottish Government.
- SEPA.
- NatureScot.
- Transport Scotland.
- Regional Transport Partnerships (RTPs).
- Public Health Scotland (PHS), health boards and NHS bodies.
- Businesses and other parties with commercial interests.
- Non-governmental organisations (NGOs) and charities.
- Community groups and representatives.

The type of co-operation and organisations engaged with will depend on local circumstances and it will be up to the local authority to determine the breadth and levels of co-operation required for any particular air quality strategy.

Format of a local air quality strategy

7.13 The format of a local air quality strategy is entirely up to the local authority. Air quality strategies can address a range of pollutants and not just those where exceedences are forecast. Local authorities could include other pollutants such as ground-level ozone or look to tackle specific pollutants prominent in their area, such as emissions from particular industrial, transport or domestic sources. Authorities could also consider taking a broader issues-based approach rather than focusing on

individual pollutants incorporating the principles of wider environmental sustainability and achieving net zero.

7.14 The air quality strategy should start by setting out the problems associated with air pollution and its impact on human health, ecosystems and the environment, vegetation and buildings/infrastructure, etc., in order to focus people's minds on what the risks are and why action needs to be taken. It might also be useful to explain what work the authority has been doing as part of its air quality review and assessment, and where applicable action planning, processes.

7.15 The local authority should set out its intentions for air quality in the strategy or what action needs to be taken to reduce levels of air pollution, such as increased use of public transport, implementation of information campaigns to bring about changes in behaviour, etc. It might also be useful to explain how the actions will be carried out and any timescales for implementation and measures of success. It is important to explain what actions the local authority is already undertaking itself, such as using alternatively fuelled vehicles in its own fleet or reducing emissions from its own energy generation. Previous APRs and actions plans will be useful sources of information to help inform this part of the strategy.

7.16 The strategy should show how local authorities will take air quality into account in wider policy areas, for example land-use planning and traffic management. It should also be linked to other plans, such as the regional and local transport strategy, development plans and, where the authority has declared an AQMA(s), the strategy could feed into the air quality action plan(s). Authorities should also indicate within the strategy what co-operation they need or have secured from other sources, such as neighbouring authorities and outside bodies such as SEPA, local businesses and community groups.

Consultation on air quality strategies

7.17 As the requirement for an air quality strategy is not a statutory requirement it does not need to go through the same formal consultation process as APRs and action plans (as required by Schedule 11(1) (c) of the 1995 Act). However, it is recommended that the same broad principles for consultation on the air quality strategy (as outlined in section 9) are undertaken to provide inclusivity with relevant parties for development and implementation of the strategy.

8: Strategic Environmental Assessment (SEA)

8.1 When developing an action plan or air quality strategy, local authorities have to consider whether it they fall within the scope of the Environmental Assessment (Scotland) Act 2005 and therefore whether a SEA is required. An important means to gauge if an SEA of an action plan or air quality strategy will be required, is to consider the likely environmental effects of implementing the plan or strategy and whether they are likely to be significant. Further guidance is available on the Scottish Government's website [Strategic Environmental Assessment \(SEA\) - Environmental assessment - gov.scot \(www.gov.scot\)](http://www.gov.scot/Strategic-Environmental-Assessment-SEA-Environmental-assessment).

8.2 As a simple guide, local authorities could take the following into consideration:

- Will the plan or strategy include conditions which will influence a development plan or other consent framework in ways which are likely to have significant effects (for example, will the action plan or air quality strategy require or preclude certain projects at certain locations)? If so, an SEA may be required; or
- Does the plan or strategy only set out specific air quality measures such as traffic management schemes, parking controls and so, and there is no intention of including conditions to influence planning or development consents? If so, it is unlikely to require an SEA.

8.3 It is important to remember that in each scenario, if the local authority judges that the environmental effects of implementing the action plan or air quality strategy are likely to be greater than minimum, a screening request has to be submitted to the Consultation Authorities (Scottish Natural Heritage (now NatureScot), SEPA and Historic Scotland) identified in the 2005 Act. This can be done via the SEA Gateway (details provided above). It is also important to note that the SEA process must be carried out during an action plan or air quality strategy's preparation, beginning at an early stage prior to any public consultation, and the findings taken into account when the plan or strategy is being finalised.

9: Consultation

Background and statutory requirements

9.1 The Environment Act 1995 provides the statutory basis for consultation and liaison. The Scottish Government expects local authorities to continue to work closely and exchange data with other authorities, agencies, businesses and the local community to improve air quality.

9.2 Schedule 11 of the 1995 Act requires local authorities to consult:

- Scottish Ministers.
- SEPA.
- All neighbouring local authorities.
- Any National Park authority within or adjacent to the local authority area.
- Other public authorities as appropriate.
- Bodies representing local business interests and other organisations as appropriate.

9.3 For the purposes of the 1995 Act, authorities should consult on their APRs AQMA declaration proposals and preparation or revision of an action plan.

Consultation on annual progress reports

9.4 For APRs and any more detailed work, local authorities will need to consult the Scottish Ministers and other statutory consultees as listed above. They will not need to consult more widely, i.e. there is no need for a full public consultation at this stage, but they should make these assessments available to the public in accessible formats.

Consultation on action plans

9.5 Local authorities must consult on their preparation of an action plan, ideally in both draft and final form. Finalisation of the plan should take account of consultees' comments on the draft. Action plans may operate over long timescales and authorities may only be able to specify broad proposals in the first draft. It is therefore an important principle that they carry out a further consultation if the initial proposals are revised while implementing or reviewing the action plan.

9.6 Consultation on a draft action plan should include:

- Details of which pollutants the authority will look at and an indication of where they come from.
- The timescales for implementing and completing each proposed measure.
- Details of other organisations or agencies whose involvement is needed to meet the plan's objectives and what the authority is doing to get their co-operation.

9.7 Local authorities should decide the timescale for consultation. The Scottish Government recommends, however, that no consultation exercise should last for fewer than six weeks and ideally be for a period of twelve weeks.

Consultation/liaison across local authority departments

9.8 It is important that there is effective internal consultation/liaison across local authority departments. Steering groups and committee meetings should have the support of the Chief Executive. This should help to ensure that air quality is dealt with consistently across the authority.

Co-operation between authorities

9.9 Co-operation between authorities has been greatly helped by the SPCCC and local pollution control liaison groups. These groups can assist with the exchange of information and ideas in carrying out the LAQM duties.

Consultation with the public/local businesses

9.10 Local authorities need to look for innovative ways of engaging with local resident/community groups and local businesses because, if people feel personally involved in air quality issues, they are more likely to be receptive to any proposed actions to improve air quality.

9.11 It is important that local authorities provide information on local air quality in a clear and accessible way. Authorities are ideally placed to tell people about the causes and effects of air pollution. Many local authorities have experience of health education and they should consider exploring links with health boards and NHS bodies. They should use their local contacts, e.g. social media, websites, local newspapers, radio, libraries to reach as wide an audience as possible. Some local authorities have already developed local air quality information strategies and make review and assessment reports publicly available. Ideally, each local authority should have a website page which contains all air quality information (historic and current) pertaining to their authority.

9.12 Day-to-day information on local air pollution levels and advice to the public when pollution is high can be important catalysts for changes in behaviour. The terminology used to describe levels of air pollution should be consistent to avoid confusion. The Scottish Government advises local authorities to adopt the Daily Air Quality Index (DAQI) banding system it uses, i.e. the pollution bands are described against a numerical index as follows: 1-3 (low), 4-6 (moderate), 7-9 (high) and 10 (very high). An explanation of the banding system can be found on the Scottish Air Quality website: [Daily Air Quality Index \(DAQI\) \(scottishairquality.scot\)](http://www.scottishairquality.scot).

Public access to information

9.13 The 1995 Act also provides for public access to information. As well as the reports on which they are required to consult, local authorities should make available copies of:

- orders (and supporting information) designating, amending or revoking an AQMA; and
- action plans and air quality strategies.

9.14 Nothing in the 1995 Act requires a local authority to make available all the material it collected for its review and assessment of air quality. Local authorities only have to make available a summary report (through the APR). It is for individual authorities to decide on the scope of these reports and how widely to distribute them. All reports should be provided to the Air Quality in Scotland website to provide a national resource for LAQM practitioners and interested parties. They should consider the most appropriate targeting of information and how best to make it easily accessible and widely available. In any event, information which the local authority holds on air quality is subject to the Environmental Information (Scotland) Regulations 2004 (SSI 520)⁹. These Regulations oblige local authorities and other organisations to deal with requests for environmental information.

⁹ [FOI law | Scottish Information Commissioner \(itspublicknowledge.info\)](http://www.scot.nhs.uk/foi-law)

10: Relationships between Local Air Quality Management and EU air quality legislation and policy

Local Air Quality Management and the EU Directives on Ambient Air Quality

10.1 The Scottish Government has made clear its commitment to maintain or exceed EU standards, following the UK's departure from the European Union (EU). The Scottish Government is committed to ensuring that EU environmental principles continue to sit at the heart of environmental policy and law in Scotland.

10.2 The UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021¹⁰ brings the guiding European principles on the environment into force in Scots law, including the precautionary principle, polluter pays principle, prevention principle, rectification at source principle and the integration principle. In relation to current regulation, retained EU law will continue to apply, as will domestic regulations made to transpose EU Directives.

Local Air Quality Management and Directive 2008/50/EC – Key differences

10.3 Although LAQM and Directive 2008/50/EC¹¹ on ambient air quality have the shared aim of improving human and environmental health through reducing air pollution, the rationale and approach employed in each system have some quite important differences.

Definitions

10.4 Under LAQM the standards are defined as objectives, whereas in the Directive they are limit or target values. This different wording reflects the differing legal status of the standards, as outlined in the following paragraph.

Legal responsibility

10.5 As explained in section 1 of this guidance, under the Environment Act 1995 and associated regulations, local authorities are required to review and assess air quality in their areas against objectives for several air pollutants of particular concern for human health. Authorities are not legally obliged to achieve the objectives by the required dates, but to demonstrate they are doing all that is reasonably possible to work towards them. This is because some pollution sources are outwith direct local authority control, for example Transport Scotland controlled trunk roads and SEPA regulated processes. However, authorities are expected to liaise with these and other relevant organisations when developing action plan measures.

10.6 In contrast, the Scottish Government is responsible for securing compliance with the Directive limit values. Local authorities have no legal responsibility in relation to the Directive, even though the work undertaken by authorities through LAQM makes an important contribution to actions being implemented by central government.

¹⁰ [UK Withdrawal from the European Union \(Continuity\) \(Scotland\) Act 2021 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2021/12/section/1)

¹¹ [Directive 2008/50/EC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0050)

Attainment dates

10.7 In most cases, the attainment dates are identical for LAQM objectives and Directive limit values. There are some differences, most notably for the Scottish PM objectives, however as these attainment dates are now passed the differences are largely academic.

Scope of assessment

10.8 Under LAQM, assessment is required in locations where members of the public are regularly present and there is exposure to the pollutant in question over the timescale for which the objective is defined. The Directive requirements are slightly different and assessment is undertaken anywhere the public has access, irrespective of whether this is regular access. The exceptions are workplaces which are covered by health and safety legislation, locations with no fixed habitation, and road carriageways and central reservations (unless there is public access to the central reservation).

Assessment methodology

10.9 Monitoring requirements are defined more precisely in the Directive than for the purposes of LAQM. The Directive requires Scotland to be divided into zones and agglomerations based on population (an agglomeration is defined as a zone if it is a conurbation of greater than 250,000 inhabitants). Within each zone/agglomeration there is a minimum number of sampling points for each pollutant and also a provision for reducing these by up to 50% if modelling can be shown to provide equivalent data of a sufficient quality. In addition, there are detailed criteria for sampling locations, including that traffic related sites should be representative of air quality for a street segment no less than 100m in length. Finally, there is a requirement to use reference monitoring equipment as specified in the Directive, or alternatively equipment that can be shown to be equivalent to the reference methods.

10.10 For LAQM monitoring, although detailed requirements are set out in the technical guidance LAQM. TG (22), there is more flexibility as to where monitoring sites can be located and greater scope for tailoring monitoring to specific local circumstances. Also, there is no legally defined requirement to use reference or equivalence methods although this is strongly encouraged and is the Scottish Government's preferred approach.

10.11 These differences in assessment methodology are why it is difficult to directly compare LAQM review and assessment with work undertaken by central government to assess compliance with the Directive. It is also the reason why it is not always possible to incorporate local authority monitoring sites into the Automatic Urban and Rural Network (AURN). The two systems are set up for different purposes, with LAQM by definition focusing much more on the local situation. The apparent anomaly between the number of AQMAs which remain in Scotland and the conclusion that we are almost fully compliant with the Directive requirements is simply a reflection of these differences. Using LAQM data to supplement UK Government submissions to the European Commission (EC) also requires careful

consideration due to the very specific requirements of the Directive and explains why, historically, this has only been done in a very limited way.

	LAQM	Directive 2008/50/EC
Responsibility	Local authorities	Central government
Legal status	Achievement of objectives not legally binding, but review and assessment process is mandatory	Achievement of limit values legally binding
Scope	Relevant public exposure	Anywhere with public access
Methodology	Reference or equivalence monitors recommended	Reference or equivalence monitors mandatory
Monitor number	Undefined, depends on local circumstances	Defined number of monitors, or modelling equivalent for up to 50% of monitoring points, based on population
Monitor locations	Defined in guidance	Defined in legislation, supplemented by guidance
Scale	Designed to assess local circumstances	Designed to give a broad overview

11: Air quality and transport

Background

11.1 Cleaner Air for Scotland (CAFS) sets out the policy framework for air quality and transport, and describes the key responsibilities of central and local government. The guidance in this chapter supplements the information contained in CAFS, and the Scottish Government expects local authorities to ensure that both documents are taken into account by all relevant departments.

11.2 Road transport is a major source of local air pollution, particularly in our towns and cities. In urban areas, road traffic accounts for a major part of the total emissions of nitrogen dioxide and particles – the objectives of most concern for human health. This has been borne out by the fact that, with one exception (the Grangemouth industrial complex, declared on the basis of sulphur dioxide), all the AQMAs currently in place in Scotland are based on nitrogen dioxide and/or particles concentrations related to transport activities.

11.3 In 2014 there were around 2.8 million road vehicles licensed in Scotland, of which 84% were cars. In the same year, 69% of Scottish households had access to a car, compared with 57% in 1990¹². This steady increase in car ownership, together with the car's flexibility and convenience, has enabled more people to travel further, with a corresponding increase in vehicle usage. Emissions from buses, taxis and goods vehicles can also make significant contributions to poor local air quality in some urban areas.

11.4 Cutting road transport emissions is therefore a key part of LAQM. Local authority officers dealing with air quality duties should liaise regularly with transport and planning colleagues, and with Transport Scotland where the pollution arises from trunk roads and motorways.

Scottish and UK context

11.5 The policy framework at both Scottish and UK level has already led to significant improvements in local air quality and will continue to do so in the future. Key transport initiatives include:-

- The development of integrated transport strategies that support sustainable development;
- Regulatory measures and standards to reduce vehicle emissions and improve fuels;
- Tax-based measures that encourage people to supply and use cleaner fuels and also encourage them to buy more environmentally-friendly vehicles; and
- Research and development to reduce emissions from HDVs (especially public transport).

¹² [Transport Scotland publications](#)

Regulatory measures to cut vehicle emissions

11.6 Overall emissions of key air pollutants from road transport have fallen by about 50% over the last 20 years, despite increases in traffic, and are expected to reduce further over the next decade. This is mainly a result of progressively tighter vehicle emission and fuel standards agreed at European level and set in UK regulations - the Euro standards. Euro standards control the emissions level of vehicles when new. Over time the Euro standards have become progressively tougher and apply to new vehicles manufactured on or after specific dates. At the same time there is now a substantial body of evidence suggesting that real world emissions are not decreasing as rapidly as predicted for some vehicle classes.

11.7 There are systems in place to ensure compliance with vehicle emission standards. Through its Type Approval work, the Vehicle Certification Agency ensures that all new models of cars coming onto our roads meet EU emissions standards. Almost all types of vehicles must go through an emission check as part of the annual MOT testing procedures. In service testing is one of several measures designed to reduce pollution from vehicle emissions. The MOT tests are kept under review in response to developments in vehicle technology to ensure an appropriate framework.

11.8 The Road Traffic (Vehicle Emissions) (Fixed Penalty) (Scotland) Regulations 2003 allow local authorities to adopt powers for undertaking roadside vehicle emissions testing. These powers are optional, but provide authorities with a useful additional tool for addressing air quality issues in their areas. Currently 13 local authorities are making use of the powers, supported by Scottish Government funding. Guidance and further information is available on the Government's website¹³.

National Transport Strategy

11.9 Scotland's National Transport Strategy was originally published in 2006 and sets out the Government's long term vision for transport, together with objectives, priorities and plans. It focuses on three strategic outcomes which will set the context for transport policy making over the next 20 years:

- improve journey times and connections between Scotland's cities and towns and global markets to tackle congestion and provide access to key markets;
- reduce emissions; and
- improve quality, accessibility and affordability of transport.

A refreshed version of the National Transport Strategy was published in 2015.

11.10 The National Transport Strategy is supported by the Strategic Transport Projects Review (STPR), published in 2008, which recommends 29 investment priorities for delivery in the next 20 years.

¹³ [Local authority powers to require drivers to switch off engines when parked: guidance](#)

The Transport (Scotland) Act 2001

11.11 The provisions of the Transport (Scotland) Act 2001 are arranged in five Parts:

- Part I – Joint Transport Strategies.
- Part II – Bus Services.
- Part III – Road User Charging.
- Parts IV and V – Miscellaneous and Supplementary, containing various measures not related to the other main Parts of the Act, and also the usual supplementary provisions including the territorial extent, and short title of the Act.

The key elements relevant to local authorities' LAQM duties are contained in parts I, II & III of the Act¹⁴.

The Transport (Scotland) Act 2005

11.12 The Transport (Scotland) Act 2005¹⁵:

- sets out provisions for Regional Transport Partnerships and Regional Transport Strategies (see paragraph 9.19 for further information);
- enables a national concessionary travel scheme;
- creates new procedures for tackling roadworks;
- transfers to the Scottish Ministers certain rail functions; and
- creates the Office of Scottish Road Works Commissioner.

Transport Scotland

11.13 Transport Scotland was established in 2006 as an agency of the Scottish Government. Its key responsibilities are:

- management of the Scottish trunk road and rail networks;
- delivery of major transport infrastructure projects; and
- operation of the national concessionary travel scheme.

Low emission vehicles

11.14 In 2013, Transport Scotland published Switched On Scotland: A Roadmap to Widespread Adoption of Plug-In Vehicles. The Roadmap sets out a vision for Scotland's towns and cities to be free from the effects of petrol and diesel fuelled vehicles by 2050. It also outlines the roles and responsibilities of all who have a part to play in this process, and local authorities should have regard to the Roadmap when developing and updating their air quality action plans.

¹⁴ [Transport Scotland Act 2001](#)

¹⁵ [Transport Act 2005](#)

Road Traffic Reduction Act

11.15 The Road Traffic Reduction Act 1997 requires local traffic authorities to review and report on existing and forecast levels of traffic on local roads. This information should be included in Local Transport Strategies.

Emissions from shipping

11.16 Ships release a significant fraction of the total emissions of man-made air pollutants. These include NO_x, sulphur oxides (SO_x), particulate matter (PM), and volatile organic compounds (VOC), which all affect local air quality. Emissions from shipping can be an issue for local authorities with major ports. Also, as emissions from other sources decline, global emissions from shipping are becoming more and more significant.

11.17 The global nature of shipping makes the International Maritime Organisation (IMO) a natural forum through which to agree a global policy response to air pollution from ships. This is covered by Annex VI of the Convention on Marine Pollution (MARPOL), which was revised in 2008.

10.18 Marine fuels used within the EU are currently regulated by the Sulphur Content of Marine Fuels Directive 2012/33/EC which amends the Sulphur Content of Liquid Fuels Directive 99/32/EC. This Directive implements the revised MARPOL Annex VI within the EU, as well as containing additional measures to control the sulphur content of marine fuels used by ships in EU waters.

Local transport measures

11.19 Traffic management and other local transport schemes are likely to be key elements in any air quality action plan or local air quality strategy. This section summarises some of the measures available to local authorities.

Local roads

11.20 Local authorities, in their role as highways authorities, have a range of powers, including compulsory purchase of land for road building and restrictions on and the stopping up of roads.

11.21 Funding for local roads, both capital and revenue, is provided through the overall local government finance settlement, under formula arrangements agreed with COSLA. This funding is not ring fenced and it is for each local authority to decide the priorities for local roads and bridges as part of overall spending plans.

Regional Transport Partnerships and Strategies

11.22 Regional Transport Partnerships (RTPs) were established in 2005 to strengthen the planning and delivery of regional transport in Scotland so that it better serves the needs of people and business. The main task of each RTP is to prepare a Regional Transport Strategy. Some RTPs are also responsible for the delivery of transport services, and all RTPs will be able to seek additional powers if required to deliver their strategies.

Local Transport Strategies

11.23 Local Transport Strategies are significant for LAQM as they set out local authorities' plans and priorities for the development of an integrated transport policy within their area of responsibility. They cover all forms of local authority provided transport and set out how authorities plan to tackle the associated problems, including those related to poor air quality. Among other things, Strategies may contain any proposals to utilise the road user charging powers, promote Green Transport Plans, and provide the context for Quality Bus Partnerships and walking and cycling strategies. The Scottish Government considers it important that air quality action plans and local air quality strategies are consistent with, and where appropriate linked to, Local Transport Strategies.

11.24 The Scottish Government and Transport Scotland work closely with local authorities to ensure that Local Transport Strategies are properly co-ordinated with Regional Transport Strategies.

Scottish Government Emissions Reduction Register

11.25 The Scottish Government, in partnership with the Energy Saving Trust, provides funding for local authorities to retrofit vehicles in their fleets with emissions reducing equipment, as part of the air quality action plan grant fund. The Energy Saving Trust has developed a register of approved suppliers and equipment which are available for potential funding under the scheme.

Road user charging

11.26 The Transport (Scotland) Act 2001 introduced discretionary powers for local authorities to bring in road user charging schemes. All the revenue raised by any charging schemes can be recycled locally. These powers therefore create a new, additional source of income to fund improvements to local transport. Before any schemes can be introduced, local authorities will have to demonstrate that they have improved public transport in advance to ensure that people have good alternatives to car use.

Traffic regulation

11.27 Sections 1, 6 and 9 of the Road Traffic Regulation Act 1984 (RTRA) give traffic authorities extensive powers to make traffic regulation orders (TROs). These can prohibit, restrict or regulate traffic or particular types of vehicle. They may apply to part of a road, a single road, or a number of roads. They may be in force all the

time or only for specified periods. Traffic authorities may exempt some classes of vehicle or permit holders.

11.28 Paragraph 36 of Schedule 22 to the 1995 Act extended powers for making TROs to include pursuit of the air quality objectives outlined in the Air Quality Strategy. TROs made on air quality grounds cannot normally restrict access to premises for more than eight hours in any 24. Schedule 22 also ensures that authorities must take explicit account of the Air Quality Strategy when using their traffic regulatory powers.

Low Emission Zones

11.29 A Low Emission Zone (LEZ) allows only vehicles meeting minimum emissions standards to enter pollution hotspots in towns and cities. The main purpose of an LEZ is to improve air quality, though it may deliver additional congestion and quality of life benefits by reducing traffic noise and overall traffic volume. No LEZs have been introduced in Scotland to date. CAFS sets out initial proposals for a national low emission framework in Scotland and local authorities should refer to this for more detailed information.

Home Zones

11.30 A Home Zone is a residential area that seeks to meet the needs of all road users equally, where pedestrians, cyclists and vehicles share the road space. Section 74 of the Transport (Scotland) Act 2001 enables local authorities to designate roads for which they are the transport authority as Home Zones. Regulations came into force in 2002 setting out the procedure to be followed in the designation process and also published guidance.

Access restriction

11.31 Local authorities can use the Roads (Traffic Calming) (Scotland) Regulations 1994 to create narrow gateways to urban centres. This technique may discourage car access to particular areas, as long as there are suitable alternative routes for through traffic. But if traffic must queue at the gateway, there could be an increase in local emissions. Authorities could use the same technique at the entrance to bypassed communities to discourage drivers from taking a short cut. Authorities may not, however, use traffic calming techniques by themselves to prevent access by any class of vehicle - this requires a TRO.

Traffic calming

11.32 The Roads (Traffic Calming) (Scotland) Regulations 1994 and the Road Humps (Scotland) Regulations 1998 allow authorities to introduce a wide range of physical measures to slow traffic. Traffic calming schemes not only have the direct effect of slowing vehicles, but also the indirect effect of deterring traffic from using residential roads as a short cut. It is important that traffic authorities design schemes to encourage a smooth driving style that avoids repeated acceleration and deceleration. The spacing between each calming feature, whether vertical or

horizontal deflections, will greatly influence driving style. Spacing of between 40m and 90m should provide the smoothest flow.

Reallocation of road space

11.33 Local authorities may also make TROs to introduce bus or cycle lanes. Conventional with-flow bus lanes, with setbacks at signal-controlled junctions, will normally have less of an effect on junction capacity than contra-flow lanes. Reallocating space to buses and cycles can make these forms of transport more attractive. Authorities can also create advisory cycle lanes (which would not require TROs), but these might not be as effective. Authorities must be careful not to increase congestion and pollution when reducing capacity, particularly during the short term while travel patterns adjust.

High occupancy vehicle lanes

11.34 A significant proportion of vehicles contains only one occupant. This is particularly so during peak periods. High occupancy vehicle (HOV) lanes are, in principle, a means of using the road network more efficiently and encouraging car sharing. Traffic authorities can make a TRO to authorise them. They can introduce HOV lanes by creating an additional lane or by converting an existing one. HOV lanes might, in some circumstances, be able to share bus lanes. There has been no use of HOV lanes to date in Scotland, and little experience elsewhere in the UK, but they may be an appropriate measure to reduce traffic levels, with a consequent reduction in emissions, on some road networks. Effective enforcement of HOV lanes also requires careful consideration.

Pedestrian/vehicle restricted areas

11.35 A local authority may wish to restrict access to a road or area to some or all vehicles at different times of the day. The Environment Act 1995 added 'improving air quality' as a reason for making TROs under the Road Traffic Regulation Act 1984. Where there are objections to an order which would have the effect of restricting or prohibiting access outside peak hours, the local authority would first need to hold a public enquiry. The reason for restricting vehicle access may be to create a pedestrianised area. Typically these allow vehicular access for all or some parts of the day. In any case, authorities will need to ensure that delivery and service vehicles have suitable access.

11.36 Restricting access to town centres has been shown to improve the local environment. There are plenty of examples of pedestrianisation schemes that have maintained or improved local economic activity. But this does not happen automatically - people must still be able to get to the area by other means. These could include:

- good public transport, perhaps with park and ride;
- facilities for cyclists and pedestrians;
- peripheral car parking;
- access for people with limited mobility; and
- access for taxis, where appropriate.

Parking controls

11.37 A big influence on whether people drive is whether they can park. The Road Traffic Regulation Act permits local authorities to determine where motorists can park and how much it will cost them. They may also restrict parking in other ways. Residents' parking schemes, for example, can be a good way of encouraging non-residents to find other ways of travelling into town centres. Authorities can also use the planning process to regulate the amount of private non-residential parking (PNR) associated with a new development.

11.38 Parking restrictions need the right level of enforcement. Effective enforcement of parking restrictions allows more efficient use of existing parking provision and can improve parking flow as drivers have to spend less time finding a parking space. The Road Traffic Act 1991 provided for the decriminalisation of most non-endorsable parking offences. Decriminalisation transfers responsibility for enforcing most parking restrictions from traffic wardens to parking attendants employed by the local authority and funded out of revenue received from penalty charges and from paid parking. This gives local authorities greater control over enforcement.

Traffic control systems

11.39 Before doing anything to improve traffic flow, highway authorities should think carefully about what to do with the road capacity they will release. Authorities should consider re-distributing it in favour of buses, cyclists and pedestrians. Where signals control junctions, a SCOOT¹⁶ traffic control system, which responds automatically to changing conditions, will give better traffic flow than an older Urban Traffic Control system and a much better flow than uncoordinated signals.

11.40 SCOOT systems can hold queues outside an area when congestion exceeds a pre-set threshold. Overall journey times might well remain similar, but drivers would queue for longer while approaching the area, then make faster progress through it. This method may be appropriate if the queue is where relatively few people are exposed to any increased emissions.

11.41 When a SCOOT system detects buses, either through an accurate automatic vehicle location system, or by transponders and special loops, it can give them priority. This cuts delay to buses and makes bus journey times more predictable, although it does not help as much as dedicated bus lanes.

11.42 Where coordinated traffic signal operation is not required, traffic signals will operate in an isolated control mode. Isolated operation can provide quicker responses to rapidly changing traffic conditions and reduce unnecessary delays, particularly during quiet periods. A SCOOT or Urban Traffic Control system may revert to isolated operation at night. If the signals are to operate efficiently, it is important that the relevant vehicle detectors are installed and working correctly. Traffic signal controllers incorporating the MOVA (Microprocessor Optimised Vehicle

¹⁶ the SCOOT ("split cycle and offset optimisation technique") urban traffic control system.

Actuation) control strategy can improve flows and reduce delays at traffic signal controlled junctions.

11.43 Other traffic management measures may also help improve traffic flow at junctions, such as TROs to ban right turns, with traffic signs reinforced in some cases by physical measures. Introducing parking restrictions can reduce exit blocking at junctions.

Speed limits

11.44 Local authorities can set speed limits by making orders under the Road Traffic Reduction Act. Reducing maximum speeds is likely to do more to improve flow and capacity on roads outside towns and cities than in urban areas, but it may still have some benefit.

11.45 Some authorities have piloted experimental variable mandatory speed limits on road safety grounds. For instance, some authorities have cut speed limits outside schools from 30mph to 20mph when children are arriving or departing. These very low speeds are unlikely to reduce emissions significantly, however, and may actually increase emissions of some pollutants. However, traffic calmed 20mph zones have proved to be very effective in reducing road traffic casualties. Guidance for local authorities on setting appropriate general speed limits was issued in 2006.

Rail

11.46 Rail-based park and ride depends on there being enough secure off-street parking at stations. Local authorities also have to consider the capacity of the road network around the station. A further issue is that informal rail-based park and ride can lead to conflict between commuters and residents and increased illegal or inconsiderate parking. Authorities may need to boost enforcement efforts to deal with these side effects. Co-operation between neighbouring authorities is important, as park and ride schemes often originate in one local authority area and terminate in another.

Buses

11.47 Buses provide the sustainable mass public transport necessary to support economic growth, accessibility and reduce emissions, meeting the Government's strategic objectives of a wealthier, fairer and greener Scotland. There was a total of 420m journeys made on local bus services in 2014-15. The Bus Action Plan sets out a vision for Scotland to develop a comprehensive bus network where sustainable services are delivered to a high quality. Since the Plan was issued in 2006, a series of bus policy guidance documents has been produced, intended to support improvements in bus services.

11.48 The use of measures such as Statutory Quality Partnerships is being actively taken forward by some local authorities, which can play an important role in improving air quality. Local authorities can also use the planning and traffic management processes to help to increase bus speeds reducing the amount of emissions through the use of increased bus priority.

Scottish Green Bus Fund

11.49 The Scottish Green Bus Fund¹⁷ was launched in 2010 and has provided funding for 209 low emission buses. In 2014/15, £3.7m was awarded to nine operators for 83 vehicles. Transport Scotland is working with local authorities and operators to review and improve the scheme, taking account of technological and market developments since 2010.

Scottish Traffic Commissioner

11.50 The post of Traffic Commissioner is a cross border public authority with both devolved and reserved responsibilities. The Traffic Commissioner enforces good practice from bus service operators, ensuring that services are introduced, varied or cancelled in an orderly fashion. The Traffic Commissioner's responsibilities include the licensing of bus operators and registration of local bus services. Further information can be found on the Traffic Commissioners' website.

11.51 In January 2008, the Public Service Vehicles (Traffic Regulation Conditions) Amendment (Scotland) Regulations came into force. An amendment to the Transport Act 1985 by the Transport (Scotland) Act 2001 allows any local authority to ask the Traffic Commissioner to attach a Traffic Regulation Condition (TRC) to an operator's Public Service Vehicle licence for the purposes of reducing or limiting air pollution. There is a power in the 1985 Act to add, by regulations, new matters that can be covered by TRCs. The 2008 regulations allow the Traffic Commissioner to set TRCs regulating emissions from buses.

11.52 The 2008 regulations have been introduced primarily for addressing poor air quality. In Scotland, all but one of the AQMAs declared to date has been based on transport emissions. In many areas, buses can be a significant contribution to these emissions. A TRC covering emissions standards for buses therefore provides local authorities with an additional measure to be considered as part of an air quality action plan. However, any application made by a local authority to have a TRC imposed must satisfy the Traffic Commissioner that there is a compelling case for doing so.

11.53 The Traffic Commissioner would need to weigh any potential costs, such as a reduced service for passengers if services are withdrawn or rerouted as a result of a TRC being imposed, against the environmental benefits of improved air quality and reduced emissions. A transport authority or bus company with services that are, or will be, operated in the area affected by a TRC can ask the Traffic Commissioner to hold an enquiry.

11.54 The 2008 regulations do not specify how bus emissions should be regulated, but the most straightforward method would be to specify the minimum Euro standard that vehicles affected by the TRC would have to meet. The Scottish Government has produced guidance for local authorities intending to submit an application to the Traffic Commissioner.

¹⁷ [Green bus fund](#)

Park and ride

11.55 Local authorities need to design park and ride schemes carefully and should see them as just one measure in an integrated transport policy. Without complementary measures such as reductions in town centre parking or pedestrianisation, park and ride may not significantly affect town centre traffic levels. Park and ride with a dedicated bus service may result in fewer cars on the urban network, but more buses. This may increase overall emissions in town centres, especially if the park and ride buses are older models. Overall emissions may also increase if older, higher emitting buses are used on park and ride routes. Park and ride schemes will generally be most successful where:

- they are some distance from the town centre, ideally where radial and orbital routes intersect;
- the town centre is served by a number of high quality sites on the outskirts, with lighting, staff, information for users and CCTV; and
- bus priority measures complement park and ride services, while cars are restricted in the town centre.

HGVs/Freight

11.56 HGVs are required to meet Euro standards and their emissions are regularly tested. In many areas, HGVs can account for a high percentage of total road transport emissions and authorities may wish to consider measures such as freight quality partnerships to tackle this. The Scottish Government actively encourages the transfer of freight from road to rail and water. Further information on freight can be found in Cleaner Air for Scotland.

Airports

11.57 Airports operators are responsible for setting up Airport Transport Forums (ATFs), the objective of which is to improve public transport access to airports. They are also responsible for preparing airport surface access strategies (ASAS), which feed into Local Transport Strategies. ASAS should include challenging short and long term targets for increasing the proportion of journeys made to airports by public transport, strategies to achieve these targets and system to oversee implementation of the strategy. ATFs should include representatives from local authorities, transport operators, local people and other interested parties.

Walking

11.58 Walking is an ideal activity for both health and transport purposes. The National Walking Strategy¹⁸ was published in 2014 and outlines the Scottish Government's vision of a Scotland where everyone benefits from walking.

Cycling

11.59 The Scottish Government is keen to increase cycling levels and in 2010 published the Cycling Action Plan for Scotland. Amongst a series of actions, commitments and outcomes, the Plan encourages local authorities to develop cycling strategies as part of their Local Transport Strategies, and to link these with education and health improvement initiatives. It also provides support to local authorities for cycling projects through dedicated allocations for cycling, walking and safer streets projects. Funding for the National Cycle Network in Scotland is provided through sustainable transport charity Sustrans and there is also provision of core funding to Cycling Scotland.

Safer Routes to School

11.60 The Scottish Government has made available to local authorities the Cycling, Walking and Safer Streets allocation to help encourage more children to cycle, walk or take public transport to school instead of private car. The Government has also provided funding for 20mph zones around primary schools and related safety projects, School Travel Coordinator places in all local authorities and the Sustrans Safe Routes to School team. Some local authorities have successfully introduced parking restrictions on streets in the vicinity of schools at the start and end of the school day.

¹⁸ [National Walking Strategy](#)

12: Air quality and planning

Background

12.1 The land use planning system is integral to improving air quality. Local authorities need to understand the links between air quality and land use planning policies if the planning system is to contribute to improving air quality. This guidance should be read in conjunction with Scottish Planning Policy (SPP) and Planning Advice Note (PAN) 51: *Planning, Environmental Protection and Regulation*. PAN 51 advises on the policies and practices that should be adopted by planning authorities and others involved in planning new developments and redevelopments.

12.2 The Scottish Government expects local authorities to ensure that this guidance, the placemaking sections and actions in CAFS and the advice in SPP and PAN 51 and the letter sent by the Chief Planner to all authorities in 2004 are taken into account by relevant departments. The guidance is designed to help planning departments within local authorities to carry out their functions and may be material in preparing development plans and in determining planning applications. It will also help businesses, SEPA and the public, and anyone else involved in the planning process.

Modernising the planning system

12.3 Scotland's planning system has undergone its most significant modernisation in over 60 years. The National Planning Framework (NPF)¹⁹ provides the context for development planning in Scotland and provides a framework for the spatial development of Scotland as a whole. It sets out the Government's development priorities over the next 20-30 years.

The land use planning context

12.4 Local authorities should integrate air quality considerations within the planning process at the earliest possible stage. To facilitate this they should consider developing supplementary planning guidance or protocols. Although the land use planning system does not offer any quick-fix solutions to areas of poor air quality, it can do much to improve local air quality in the longer term, as well as ensuring in the short term that existing air quality does not deteriorate.

12.5 In addition to PAN 51, planning policies relevant to local authorities' air quality responsibilities are outlined in Scottish Planning Policy (SPP)²⁰. The SPP sets out the Government's policies on land use planning and explains how the planning system can help meet the Scottish Ministers' priorities for operation of the planning system, and land use and development.

¹⁹ [National Planning Framework 3](#)

²⁰ [Scottish Planning Policy](#)

12.6 Planning authorities should also be aware of the guidance produced by Environmental Protection UK, *Development Control: Planning for Air Quality*. The guidance was updated in 2015²¹.

Planning and pollution control

12.7 PAN 51 explains the relationship between the land use planning and pollution control systems. The systems are separate but complementary. Close co-ordination between planning authorities and pollution control regulators helps to minimise unnecessary duplication of effort.

12.8 If a proposed emission source does not require a pollution control permit (e.g. if the source is not regulated under Integrated Pollution Prevention and Control (IPPC), or if only some of its emissions are regulated under the Clean Air Act 1993) then planning authorities might, in some circumstances, consider adding conditions to the planning permission to tackle the source's possible effect on local air quality. These conditions might require a scheme of monitoring and mitigation, covering planning concerns to be approved by planning authorities before any development goes ahead. In these cases, planning authorities should work closely with SEPA and/or the environmental health department, as appropriate. Where conditions are not enough to overcome the planning objection to a development proposal, it may be appropriate for the parties to enter into a planning agreement. Section 75 of the Town and Country Planning (Scotland) Act 1997 enables any person interested in land in the area of a planning authority to enter into a planning agreement with the authority. Planning authorities should, however, avoid unnecessary conditions or agreements that duplicate the effects of other controls. Also, conditions that conflict with other controls would be *ultra vires* (beyond the authority's powers) because they are unreasonable.

Development Plans

12.9 Some issues that should be considered in the preparation of development plans, and may also be material in the consideration of individual planning applications, are as follows:

- Ensuring that the land use planning system makes an appropriate contribution to the achievement of air quality objectives;
- the need to identify land, or establish criteria, for the location of potentially polluting developments and the availability of alternative sites;
- inclusion of policies on the appropriate location for new development, including reducing the need to travel and promoting public transport;
- the potential effects of particular types of developments on existing and likely future air quality, particularly in and around AQMAs; and
- the requirements of air quality action plans.

²¹ [Land-Use Planning & Development Control: Planning for Air Quality](#)

Environmental impact assessment and the planning process

12.10 Environmental impact assessment (EIA) is an important procedure for ensuring that potentially significant environmental effects (direct and indirect) of a proposed development are fully understood and taken into account before the development is approved or refused. The types of development for which an EIA may be required are given in the Environmental Impact Assessment (Scotland) Regulations 1999.

12.11 The developer of a project which is subject to EIA is required to prepare an environmental statement describing the likely effects of the project. The planning authority must take this into account when considering the planning application. The information to be included in the environmental statement is described in Schedule 4 to the Regulations. It must include a description of the development, potentially significant environmental effects (including air quality before and after the proposed development), mitigating measures envisaged, a description of any alternatives considered by the applicant and the reasons for the final choice, and a non-technical summary.

Air quality as a material consideration

12.12 Air quality is capable of being a material planning consideration, in so far as it affects land use. Whether it actually is will depend upon the facts of the case. Wherever a proposed development is likely to have significant air quality impacts, close co-operation will be essential between planning authorities and those with responsibility for air quality and pollution control. The impact on ambient air quality is likely to be particularly important where:

- the proposed development is inside or adjacent to an AQMA;
- the development could result in designation of a new AQMA; and
- the granting of planning permission would conflict with, or render unworkable, elements of a local authority's air quality action plan.

12.13 This does not mean that all planning applications for developments inside or adjacent to AQMAs should automatically be refused if the development is likely to affect local air quality. Such an approach could sterilise development, particularly where authorities have designated large areas as AQMAs. All such applications will continue to be considered according to their individual merits on the basis of all available information. It may mean, however, that consideration of planning conditions could be required in some circumstances.

12.14 In considering whether a site inside an AQMA is an appropriate location for new housing, planning authorities should consider where within the AQMA likely exceedences have been identified, how great these exceedences are and when it is forecast that the objectives will be met. It should also consider the potential effect on air quality of the new housing development.

Summary

12.15 This guidance is intended to serve only as a brief summary of some of the main ways in which land use planning can help deliver air quality objectives. It builds on the detailed advice contained in the SPP and PAN 51, but is not intended to serve as a substitute for them.

13: Air quality and biomass

Background

13.1 The Scottish Government encourages the adoption of biomass combustion in order to reduce greenhouse gas emissions, mitigate against climate change effects and improve energy security and rural development. However biomass combustion contributes to emissions of air pollutants that are potentially harmful to human health, especially particulate matter. Concerns have thus been raised at the possible widespread adoption of biomass in urban areas with existing air quality issues.

13.2 The Scottish Government's 2020 Routemap for Renewable Energy in Scotland sets out the Government's policy on all aspects of renewable energy development, including biomass. The use of biomass to generate energy should not have a detrimental impact on air quality, particularly where this would significantly affect public health or compromise the ability to meet legal obligations under air quality legislation. However, the Scottish Government recognises that renewable heat technologies can benefit air quality in situations where they replace oil and coal heating.

Biomass impact on air quality in urban areas

13.3 A research project was undertaken by the Scottish Government in 2008, which looked at emissions of PM₁₀ and PM_{2.5} from wood burning biomass boilers. Detailed measurements were made of particulate emissions from a range of typical small scale biomass boilers installed and operational in urban areas throughout Scotland. Additionally, the potential cumulative impact of biomass boilers on particles concentrations in urban areas was evaluated, using Dundee and Edinburgh as case studies.

13.4 The study demonstrated that biomass boilers will not be the major source of PM₁₀ or PM_{2.5} in urban areas. However, in areas that are already close to the 2010 PM₁₀ objective, the additional contribution of biomass may lead to exceedences at some urban background locations. Higher concentrations may be seen in areas close to specific sources. The study also shows that large scale uptake of biomass in urban areas could increase the difficulty in achieving the PM_{2.5} exposure reduction target of 15% by 2020 in urban background areas.

Biomass and planning applications

13.5 As part of the study, screening tools have been developed to help local authorities assess the impact of both individual and multiple boiler applications. The revised technical guidance TG (16) contains updated guidance on assessing biomass impacts across the UK. The Scottish screening tools build on this and are designed to take account of the more stringent particles objectives in Scotland.

13.6 The individual installation tool will allow authorities to make informed judgements on the impact of biomass combustion on air quality and the potential need to specify control measures. The combined tool will help to identify high density or industrial areas where single large district or community heating schemes

may be more appropriate and have less impact on air quality than numerous individual small boilers. For example, at one large proposed housing development in Edinburgh, the study shows that use of a small number of centralised biomass boilers may contribute 0.5-1.0 $\mu\text{g m}^3$ to PM_{10} and $\text{PM}_{2.5}$ concentrations, compared to 2.0-5.0 $\mu\text{g m}^3$ for individual heating systems.

13.7 When considering planning applications for biomass boilers, local authorities should as a first step apply the new screening tools to assess the possible impact. If this assessment indicates that any individual boiler, or group of boilers in a specific area, has the potential to contribute to an exceedence of the PM_{10} objectives, the local authority should give careful consideration as to whether the application should be approved.

13.8 Whilst determination of a planning application is a matter for the local planning authority, taking all relevant considerations into account, attention is drawn to chapter 11 of this guidance on air quality and planning, and to the letter sent by the Chief Planner to all local authorities in 2004 confirming that air quality is capable of being a material planning consideration. The impact on ambient air quality is likely to be especially important where:

- the proposed development is inside or adjacent to an AQMA;
- the development could result in designation of a new AQMA; and
- the granting of planning permission would conflict with, or render unworkable, elements of a local authority's air quality action plan.

Biomass and air quality policy co-ordination

13.9 In 2012, the then Minister for Environment and Climate Change wrote to the Chief Executive of COSLA setting out the Scottish Government's policy position on air quality and biomass²². The information set out in this letter should also be taken into account by local authorities when considering biomass related planning applications. Useful information can also be found in Biomass and Air Quality Guidance for Scottish Local Authorities published by Environmental Protection UK in 2010²³, and in a guidance note published by the Scottish Government and Forestry Commission Scotland in 2015.

13.10 Use of abatement technology can reduce PM_{10} and $\text{PM}_{2.5}$ emissions and, depending on the nature of the development and the type of boiler and abatement equipment, may help to ensure that there is no significant contribution to overall particles concentrations from a development or group of developments. Most larger new automatic boilers are fitted with some kind of flue gas cleaning device. Smaller boilers are generally not fitted with such devices and thus appropriate equipment will need to be identified. Ideally, any abatement technology chosen should have undergone some form of independent and generally recognised testing to ensure that it will have the desired effect.

²² [Minister for Environment and Climate Change letter](#)

²³ [Biomass and air quality guidance](#)

13.11 Emissions can also be reduced by controlling stack heights. The Scottish Government's study suggests that a stack height sufficient to limit the individual ground level contributions to annual mean concentrations from each boiler to less than $1 \mu\text{g m}^3$ is likely in most cases to protect public health without requiring excessive stack heights. Other features such as boiler design, specification, efficiency, fuel type, fuel quality and the suitability of the boiler to match the fuel load applied at the site should also be taken into account when considering the acceptability of proposals.

13.12 If, after taking all relevant considerations into account, a local authority decides to grant planning permission to a boiler in an area where air quality objectives are likely to be exceeded, or in other areas where human health may be significantly affected, it is strongly recommended that some form of mitigation - whether through abatement technology, appropriate stack height, specific system design features or a combination of these - is included in a planning condition to minimise the impact of such developments.

Clean Air Act

13.13 The Clean Air Act regulates emissions from commercial and domestic premises in Smoke Control Areas. However, this legislation was developed in the 1960s, primarily aimed at coal combustion, and is not appropriate for the current pollution situation and control of fine particulate emissions. Of specific concern is the fact that most existing boilers in urban areas are now gas fuelled and hence emissions are significantly lower than the Act's requirements. Therefore although biomass boilers may meet Clean Air Act standards, in many circumstances they still have the potential to produce PM_{10} emissions that are worse than the current gas equivalent.

13.14 At the time of writing, a comprehensive review of the Clean Air Act was underway. This process commenced at the start of 2013 with a questionnaire circulated to local authorities, industry and other interested parties seeking views on how the Act should be revamped, and information on evidence gaps. The questionnaire responses were used as the basis for a focus group workshop run by Defra, which was followed later in 2013 by a call for evidence seeking additional input. This material is being used as the basis for reviewing the Act, which will progress during 2016.

13.15 In advance of the main review of the Act, sections 20 and 21 have been amended to remove the need for authorised fuels and exempt appliances to be notified by Statutory Instrument. Instead, this has become an administrative procedure which will make the notification process much quicker and more efficient, and will result in a significant resource saving. These amendments were made through the Regulatory Reform (Scotland) Act 2014. The Scottish Government, in partnership with the other UK administrations, has developed an online notification system for authorised fuels and exempt appliances.

14: Air quality and climate change

14.1 The Scottish Government considers it particularly important that climate change and air quality policies are properly integrated. Some air pollutants, notably black carbon, also make a significant contribution to atmospheric warming. It thus follows that there will be situations where policies to reduce greenhouse gas emissions will have benefits for air quality, and vice-versa; such situations should be fully exploited.

14.2 CAFS acknowledges that there will often be co-benefits for air quality and climate change policies where certain measures are taken, such as reduced consumption of fossil fuel. An integrated approach is also likely to be more cost effective and deliver greater health and environmental benefits. The transport sector serves as a good example of where joined-up policy can secure co-benefits. Improved fuels and vehicle technologies in conjunction with effective land use planning should help improve air quality as well as contribute to climate change mitigation. However, without proper consideration, there is the possibility that some policies to mitigate climate change will have a negative impact on air quality. The Climate Change (Scotland) Act 2009²⁴ creates a long term framework for ensuring a reduction in Scottish emissions of 80% by 2050.

14.3 The Scottish Government therefore expects local authorities to consider the impact on greenhouse gas emissions of the measures they propose to implement in their air quality action plans and in any local air quality strategies. Authorities might also wish to consider including policies to reduce greenhouse gas emissions in their local air quality strategies. The Scottish Government and the other UK administrations' joint approach for addressing linkages between air quality and climate change policy is set out in *Air Pollution: Action in a Changing Climate*²⁵. Local authorities should refer to this document for further background information and also when developing their own policies and strategies to jointly tackle air pollutants and greenhouse gases.

14.4 The Scottish Government expects local authorities to take an integrated approach to dealing with environmental issues such as climate change and air quality. For example, it may be possible to use data gathered during reviews and assessments to provide information on greenhouse gas emissions, particularly carbon dioxide. Emissions inventories could be especially useful for this, and further information can be found in the technical guidance.

14.5 Such information will be of use in assessing the impact on greenhouse gas emissions of air quality action plans and local air quality strategies. It will also be useful for assessing the impact of other policy areas, such as land use planning, transport planning and community strategies. The Scottish Government therefore encourages local authorities to make use of air quality information gathered within these other policy areas.

²⁴ <http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/climatechangeact>

²⁵ <http://www.scotland.gov.uk/Resource/Doc/211199/0095731.pdf>

15: Air quality and noise

Integrating air quality and traffic noise management

15.1 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. Even where they do not, poor air quality at one location and high noise levels at a neighbouring location may be related through the way in which traffic is managed across the wider area. In aiming for the most beneficial outcome for members of the public, it is important to seek measures that both improve air quality and reduce noise levels – for example speed restrictions – and avoid measures that worsen one while seeking to improve the other. Local authorities should ensure that an integrated approach to managing air quality and noise is taken across all departments, and when working with external partners.

15.2 Directive 2002/49/EC on assessment and management of environmental noise aims to define a common approach to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, resulting from exposure to environmental noise. The Directive is transposed by the Environmental Noise (Scotland) Regulations 2006. The regulations assigned the role of competent authority for preparing noise maps and action plans under the Directive to the Scottish Ministers.

15.3 The Scottish Government has produced strategic noise maps and noise action plans for major roads, major railways, Aberdeen, Dundee, Edinburgh, Glasgow agglomerations and for Edinburgh, Glasgow, Aberdeen and Dundee Airports, all as required by the Directive. Local authorities may be aware of additional areas not covered by the Directive requirements where transportation noise is known to be an issue.

Traffic noise and health

15.4 According to preliminary results from a World Health Organisation study²⁶, air pollution and noise are estimated to be the leading factors influencing the environmental burden of disease in Europe. In 2010 the Health Protection Agency (now part of Public Health England) published Environmental noise and health in the UK²⁷ which concluded that:

Environmental noise is a problem in the UK today and many people are concerned about its possible effects on health. In terms of wellbeing we have little doubt that a significant number of people are adversely affected by exposure to environmental noise. If it is accepted that health should be defined in such a way as to include wellbeing then these people can be said to suffer damage to their health as a result of exposure to environmental noise. There is increasing evidence that environmental noise, from both aircraft and road traffic, is

²⁶ <http://www.euro.who.int/en/health-topics/environment-and-health/pages/evidence-and-data/environmental-burden-of-disease-ebd>

²⁷ <http://www.apho.org.uk/resource/item.aspx?RID=83405>

associated with raised blood pressure and with a small increase in the risk of coronary heart disease.

15.5 In 2011 the World Health Organisation published Burden of disease from environmental noise: Quantification of healthy life years lost in Europe²⁸. The report estimated that at least one million healthy life years are lost every year from traffic related noise in western Europe, specifically:

- 61,000 years for ischemic heart disease;
- 45,000 years for cognitive impairment in children;
- 903,000 years for sleep disturbance;
- 22,000 years for tinnitus;
- and
- 654,000 years for annoyance.

15.6 Scottish Transport Appraisal Guidance²⁹ (STAG) contains information on assessing the impact of environmental noise in relation to new transport projects. Tools developed by bodies such as the UK Government's Interdepartmental Group on Costs and Benefits³⁰ and the European Environment Agency³¹ may be of use in providing indicative monetary valuations of noise related health effects. This guidance can be used in cost benefit analyses for options appraisal, provided that the uncertainties and assumptions behind the methodologies are taken into account. Transport Scotland and Scottish Government are working with local authorities to develop and apply an appropriate Appraisal and Test of Reasonableness tool for ranking effective Noise Management Area interventions.

Air quality action planning and noise

15.7 As stated elsewhere in this guidance, air quality action plans must include evidence that all available options have been considered in relation to cost effectiveness and feasibility. Cost beneficial measures should be given priority, although there will be circumstances when cost effective measures are required for working towards air quality objectives.

15.8 Whenever air quality action plans prioritise measures in terms of costs and benefits, traffic noise should receive due consideration, qualitatively if not quantitatively. Special consideration should be given to noise management areas identified by the noise action plans, and any other areas where a local authority considers traffic noise to be a matter of concern, particularly where proposed air quality measures may potentially impact on noise levels. Such an impact could occur over a wide area, for example if diverting traffic from one location leads to noise increases elsewhere. Therefore, when developing an action plan, local authorities should bear in mind that there may be consequential effects of introducing a specific measure.

²⁸ <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cardiovascular-diseases/publications/2011/burden-of-disease-from-environmental-noise.-quantification-of-healthy-life-years-lost-in-europe>

²⁹ <http://www.transportscotland.gov.uk/stag>

³⁰ <http://archive.defra.gov.uk/environment/quality/noise/igcb/>

³¹ <http://www.eea.europa.eu/publications/good-practice-guide-on-noise>

15.9 Authorities must make a judgement in each case as to whether the impacts of action plan measures on traffic noise need to be quantified or whether they can be treated qualitatively when prioritising measures. The noise assessment should reflect local circumstances and should not be disproportionate to the scale of change proposed.

15.10 Certain measures, particularly those concerned with reducing local traffic flows, may benefit both air quality and noise, although in some cases this may only hold true when speeds are not permitted to increase. Other potential measures that can reduce both air pollution and noise include restrictions on heavy vehicles, reducing speeds on motorways and dual carriageways, and strategies to increase the separation between the source and sensitive receptors, for example by building a bypass. However, measures to lower average speeds of traffic in urban areas, whilst usually benefitting noise, may increase air pollutant emissions. Modelling may be required to determine the optimum public health outcome for a given locality. The level of detail sought should sensibly reflect the scale of changes proposed.

15.11 Containment of air pollution and noise through the use of tunnels, cuttings or barriers may worsen air quality for road users. This should be taken into account when considering options. Ensuring compliance with EU air quality limit values or domestic objectives may result in negative noise outcomes in some instances. Where this occurs, it should be recorded clearly so as to inform the prioritisation of any future noise improvement initiatives.

16: Glossary

AQMA	Air Quality Management Area
APR	Annual Progress Report
AURN	Automatic Urban and Rural Network
CAFS	Cleaner Air for Scotland – The Road to a Healthier Future
CAFS2	Cleaner Air for Scotland 2 – Towards a Better Place for Everyone
COSLA	Convention of Scottish Local Authorities
DAQI	Daily Air Quality Index
END	Environmental Noise Directive
ESS	Environmental Standards Scotland
EU	European Union
HPS	Health Protection Scotland (now Public Health Scotland)
LAQM	Local Air Quality Management
LEZ	Low Emission Zone
NHS	National Health Service
NLEF	National Low Emissions Framework
NMF	National Modelling Framework
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
NPF	National Planning Framework
NTS	National Transport Strategy
PAN	Planning Advice Note
PCLG	Pollution Control Liaison Group
PG 22	LAQM Policy Guidance 22 (England and Wales)
PG (S) 23	LAQM Policy Guidance 23 (Scotland)
PHS	Public Health Scotland
PM _{10/2.5}	Particulate Matter less than 10 micrometres and less than 2.5 micrometres in diameter respectively
QA/QC	Quality Assurance/Quality Control
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SO ₂	Sulphur Dioxide
Sox	Oxides of Sulphur
SNH	Scottish Natural Heritage (now NatureScot)
SPCCC	Scottish Pollution Control Coordinating Committee
SPP	Scottish Planning Policy
TG 22	LAQM Technical Guidance (UK-wide)
UK	United Kingdom
WHO	World Health Organisation



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This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-80525-577-2 (web only)

Published by The Scottish Government, March 2023

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1248642 (03/23)

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