

Research Project: National Planning Framework 4: Improving Air Quality Outcomes

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Executive Summary

SLR Consulting Ltd was commissioned by Building Standards Division of the Scottish Government Directorate for Local Government and Communities on behalf of the Planning and Architecture Division to undertake a research project to investigate improving air quality outcomes of the anticipated National Planning Framework 4 (NPF4). The NPF4 will incorporate the current NPF3 and Scottish Planning Policy (SPP) into one document and be given development plan status.

The aim of the research project was to identify a series of conclusions around the types of air quality policy measures which are effective in managing potential air quality issues. These conclusions may be considered for inclusion within the NPF4 in the context of development plan policy and air quality across Scotland.

The project was undertaken in three Stages; referred to as Stage 1, Stage 2 and Stage 3 throughout. The main aims of each Stage are as follows:

- Stage 1: to gain an understanding of the differing approaches to air quality within LDP. Scottish Local Development Plans (LDP) were reviewed to assess the level of representation of air quality.
- Stage 2: to investigate approaches to air quality within planning in the UK as a whole and Europe as legal obligations and air quality standards are largely aligned.
- Stage 3: to prepare a set of survey questions that could be used in a survey designed to further develop the conclusions of the research project based on practical experience of air quality and planning in Scotland.

Stage 1 began with a detailed review of LDP in Scotland to identify the different approaches to managing air quality and the extent to which it is currently represented within LDP. Air quality was found to be represented in numerous ways: an air quality specific policy, directly within an alternative policy area and indirectly; where air quality was not specifically mentioned although known to be intrinsically linked to the policy area in question. It was noted that some LDP did not directly represent air quality at all and in these cases representation of air quality was very limited and would rely upon national planning policy.

LDP review identified 17 plans that had air quality specific policies. They were analysed in detail, and a scoring matrix was developed. Some of the policies scored better than others, in terms of their complexity, ideas incorporated and degree of integration with other policy areas. Integrated policies are considered more wide-reaching in their impacts and in air quality terms, more likely to provide the greatest air quality improvements that are sustainable.

Overall, NPF4 presents an opportunity to ensure air quality is consistently represented across Scotland. A sufficiently prescriptive air quality specific policy could be included within NPF4. This policy could reference the need to assess air quality and the need for mitigation, removing the need for Local Planning Authorities to develop detailed air quality specific policies within their LDP unless necessary due to local factors.

NPF4 could reference air quality within other policy areas, such as those relating to transport, placemaking and behavioural change. This would ensure that air quality has both a specific policy and is integrated with other policy areas.

Conclusions from Stage 1 include the following:

- Linkages between air quality and other related topic areas should be made within NPF4, where possible, to promote integration of topic areas at the national level and also the local, LDP level; and
- NPF4 has the opportunity to provide a sufficiently prescriptive air quality specific policy, removing the need for Local Planning Authorities to develop, within their respective LDP, detailed air quality specific policies unless necessary due to local factors.

Stage 2 built on Stage 1 to investigate approaches to air quality within planning in the UK and Europe. Firstly, a number of case studies of Scottish Local Planning Authorities were undertaken to further explore the representation of air quality within LDP (presented in Stage 1) and Local Air Quality Management (LAQM), and to understand the drivers behind the inclusion of air quality. The case studies also identified best practice approaches on the inclusion of air quality within LDPs.

In addition, air quality and planning guidance documents produced by Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) and Environmental Protection Scotland (EPS) and the Royal Town Planning Institute (RTPI) Scotland were reviewed alongside Supplementary Guidance (SG) for air quality published in Scotland.

The planning regimes in England and Wales and their respective approaches to air quality was then reviewed. Stage 2 also referenced the recommendations of the National Institute of Health and Care Excellence (NICE) and Public Health England (PHE) on air quality and planning to illustrate the need for air quality to be considered within planning policy.

Finally, a review of European research projects on addressing air quality within development planning was undertaken. It focused on the more integrated approaches, considered to provide greater air quality improvements.

Conclusions from Stage 2 include the following:

- The linkages between LDP and LAQM could be further realised and established by NPF4, for example; mentioning Air Quality Management Areas (AQMAs) could help provide consistency in their management within policy across Scotland;
- NICE and PHE publications on air quality and planning reiterate the need for an integrated approach to spatial planning to improve the air quality outcomes of planning policy;
- There are currently a number of European initiatives and resources to support integrated spatial planning for urban areas where air quality issues are the greatest. These are better considered at LDP level for urban Local Planning Authorities rather than incorporated within NPF4; and

- The use of Air Quality and Planning guidance could be formally recognised at LDP level. NPF4 is an overarching planning policy and reference to specific guidance documents is not suitable considering that these can be updated more regularly than NPF4. Reference to ‘approved guidance/tools published by the Scottish Government’ is considered more appropriate. This would support the Planning (Scotland) Act provisions to remove the need for SG and streamline the approach to best practice across Scotland.

Stage 3 aimed to further develop the conclusions of the research project (Stages 1 and 2) by utilising the practical experience of air quality and planning in Scotland. A set of potential survey questions which could be included in a survey for Environmental Health Officers and Planning Officers in Scotland were produced. The survey would be aimed at professionals who work in the fields of air quality and planning and deal with the interactions between the two, e.g. Environmental Health Officers and Planners in Scotland.

The survey questions are based on the set of conclusions and best practice examples identified in Stages 1 and 2, with the aim of interrogating, strengthening and evidencing them further. The overarching aim of the survey would be to gain an understanding from professionals about the interaction of air quality and planning in Scotland and inform the focus of NPF4 in terms of air quality and development planning.

Overall the research project investigated ways to improve air quality outcomes of the anticipated NPF4. It reviewed current approaches within planning in Scotland in regards to air quality, identified best practice examples from the UK as well as European examples. The review identified that the most effective policy measures to improve the air quality outcomes of the NPF4 involve a prescriptive air quality specific policy detailing the approach to assessments as well as integrated policy measures with other policy areas such as transport and placemaking.

1. Introduction

INTRODUCTION

- 1.1 SLR Consulting Ltd was commissioned by Building Standards Division (BSD) of the Scottish Government Directorate for Local Government and Communities on behalf of the Planning and Architecture Division (PAD) to undertake a research project to investigate improving air quality outcomes of the anticipated National Planning Framework 4 (NPF4).
- 1.2 The Planning (Scotland) Act 2019¹ requires that the revised NPF considers any national strategy relevant to the improvement of air quality. Scottish Ministers plan to incorporate NPF3 and Scottish Planning Policy (SPP) into a single document to be known as the NPF4. This research project forms part of the development of the NPF4, expected to be laid before Scottish Parliament in Autumn 2021.
- 1.3 This research project builds on recent policy research, most notably the ‘*Adoption of Scottish Planning Policy in Local Development Plans*’² that brought together details on all Local Development Plan (LDP) policies that are implementing SPP and ‘*Cleaner Air for Scotland Strategy: Independent Review*’³ that will form the basis for the revised Clean Air for Scotland (CAFS) strategy.
- 1.4 Air quality issues and their severity vary across Scotland reflecting the presence of urban centres and extensive rural areas. Although Scotland is performing relatively well in regard to air quality in EU terms, air quality will need to be adequately considered in development proposals to maintain the current downward trend in air pollutant concentrations. It will also enable future developments to be taken forwards in a manner that fulfils air quality policy, climate change and sustainability objectives.
- 1.5 The aim of this research project is to identify a series of conclusions around the types of air quality policy measures which are effective in managing potential air quality issues. These conclusions may be considered for inclusion within the NPF4 in the context of development plan policy and air quality across Scotland.

BACKGROUND

- 1.6 The planning system is underpinned by the current NPF and SPP. The NPF is the Scottish Government’s spatial strategy whereas the SPP sets out the national thematic planning policies that form the basis of development plan policy which in turn informs decisions on planning applications. Local Planning Authorities prepare LDPs that underpin decision making on planning applications. The NPF4 will incorporate the SPP and provide the NPF4 with development plan status, allowing it to be used by planning authorities in

¹ Planning (Scotland) Act 2019, Scottish Parliament

² Adoption of Scottish Planning Policy in Local Development Plans, Scottish Government, 9 October 2019

³ Scottish Government, Cleaner Air for Scotland Strategy – An Independent Review, 29 August 2019

determining planning applications. The Planning (Scotland) Act 2019 requires that the NPF is prepared in a manner that contributes, among other outcomes, to improving health and well-being; and improving equality and eliminating discrimination.

- 1.7 The SPP references air quality in the Principal Policy on Sustainability, making it a material consideration in plan making and determining planning applications. However, it does not identify the aspects of land allocations or individual development proposals that will lead to improvements in air quality. According to the research project '*Adoption of Scottish Planning Policy in Local Development Plans*', the current SPP does not provide the key principles/measures that can ensure that development plans and development management do not result in worsening of air quality. In addition, the '*Cleaner Air for Scotland strategy: Independent Review*' makes a series of recommendations on air quality and planning. This research project builds on the outcomes of the above projects to provide recommendations in incorporating air quality considerations in planning policy, aiming to achieve synergies with other planning considerations such as sustainable transport and climate change.
- 1.8 This research project will focus on the following recommendations of the '*Cleaner Air for Scotland strategy: Independent Review*':
- T8: Spatial planning and transport planning need to work together to be effective in ensuring local decision-making does not undermine national objectives for air quality;
 - T9: Make Supplementary Planning Guidance on Air Quality mandatory;
 - P3: Local Authority Air Quality Performance Specifics and Knowledge Exchange; and
 - LG1: Realising effective Placemaking in practice.
- 1.9 In addition, where relevant, the relationship between Local Air Quality Management (LAQM) and local planning policy (i.e. LDP) is explored. Part IV of the Environment Act 1995⁴ requires all Local Authorities within Scotland to periodically review and assess the quality of air within their administrative area.
- 1.10 Where any of the prescribed National Air Quality Standards are not being achieved, or not likely to be achieved, the authority concerned must designate an Air Quality Management Area (AQMA). For each AQMA the authority has a duty to draw up an Air Quality Action Plan (AQAP) setting out the measures the authority intends to introduce to deliver improvements in local air quality in pursuit of the standards. As such, Local Authorities have formal powers to influence air quality through a combination of LAQM and LDP; the two can therefore often be linked.
- 1.11 The Department for Environment, Food and Rural Affairs (Defra) and the Scottish Government has published technical guidance for use in LAQM work,

⁴ Environment Act 1995, United Kingdom Act of Parliament.

referred to as LAQM.TG(16)⁵. Every year each Local Authority in Scotland must produce an Annual Progress Report (APR) detailing the current air quality of the area, monitoring undertaken and progress on AQAP measures. The APRs are available online through individual Local Planning Authority websites and are also published centrally on the *Air Quality in Scotland* website⁶.

⁵ Defra: Local Air Quality Management Review and Assessment Technical Guidance LAQM.TG(16), February 2018

⁶ <http://www.scottishairquality.scot/news/reports?view=laqm>

AIMS AND OBJECTIVES

1.12 The objectives of this project are:

- Review the current approach to air quality in development planning.
- Assess the current approach to improving air quality within the development planning framework through the review of literature and taking into consideration the independent review of the '*Cleaner Air for Scotland strategy*'.
- Identify whether current planning policy approaches are likely to be effective in managing air quality.
- Investigate whether changes to planning policy could be made to improve air quality outcomes, considering the impact of behaviour change and place design for new and existing places.
- Identify a series of conclusions surrounding the best practice approach for managing air quality and improvement of air quality outcomes.

Its main aim is to make a series of conclusions regarding the types of air quality policy measures which are effective in managing potential air quality issues and of relevance to the NPF4 in the context of development planning policy.

METHODOLOGY

1.13 The scope of the research project is presented in Table 1.12a below.

Table 1.12a: Scope

Task	Description
Inception meeting	Discuss scope and timeframe of the research project.
Stage 1	Review the ' <i>Adoption of Scottish Planning Policy in Local Development Plan</i> ' and associated excel ' <i>Database of Development Plan Policies</i> ' for relevant air quality policies and assess their efficacy. Review the differing approaches to air quality across LDPs.
Stage 2	Identify a set of best practice examples from Scotland and Internationally that could be used to inform NPF4 on the approaches which best manage air quality in the context of development plan policy.
Stage 3	Prepare a set of questions to Environmental Health Officers and Planners to further inform the set of conclusions and best practice examples identified in Stages 1 and 2.
Reporting	Prepare a report to present the scope, methodology and outcomes of the research project.

1.14 The following paragraphs present the detailed methodology for Stages 1 to 3.

Stage 1

1.15 The main aim of Stage 1 was to gain an understanding of the differing approaches to air quality within LDPs. Scotland's LDPs were reviewed to assess the level of representation of air quality.

1.16 The review was driven by the '*Cleaner Air for Scotland strategy: Independent Review*' recommendations. It extracted the air quality relevant information from the research review '*Adoption of Scottish Planning Policy in Local Development Plans*' and associated excel '*Database of Development Plan Policies*'. The database was interrogated to identify the following:

- Air quality specific policies (direct); and
- Sustainable transport/energy/climate change/health policies and any other policies that indirectly impact air quality.

1.17 A database of policies was created identifying the air quality specific policies and policies that indirectly infer air quality. The presence of AQMAs and relevant Supplementary Guidance (SG) as well as geographical classification (i.e. coastal, urban, rural, etc.) was included within the database. This provided an overview of the current approach to air quality within development plans.

1.18 The air quality specific policies were assessed qualitatively by undertaking a textual analysis, classifying the complexity of the policy and the degree in which

it integrates with other LDP policies. In addition, the direct policies were analysed in relation to the language used. Common themes, phrases and words were noted throughout the policies.

- 1.19 Stage 1 provides an overview of air quality policies within LDPs to identify the varying approaches applied and identify current air quality policies that can be used as the basis of the development of air quality policies within NPF4.

Stage 2

- 1.20 As part of Stage 2 a review of approaches in Scotland in relation to air quality within planning was undertaken through a series of case studies, identifying a series of potential improvements in how air quality should be addressed within the NPF4. Stage 2 included a review of the published SG on air quality by Scottish Local Planning Authorities.

- 1.21 A wider literature review was conducted to identify best practice examples of effective approaches to improving air quality in a planning policy context. The key sources consulted were:

- Published policy documents and frameworks;
- Published guidance documents (i.e. IAQM); and
- Research reports and papers (i.e. European Commission research projects).

Stage 3

- 1.22 The main aim of Stage 3 was to prepare a set of questions that could be used in a survey designed to further develop the conclusions of the research project based on practical experience of air quality and planning in Scotland. The survey questions are based on the set of conclusions and best practice examples identified in Stages 1 and 2, with the aim of interrogating, strengthening and evidencing them further.
- 1.23 The survey would be aimed at professionals who work in the fields of air quality and planning and deal with the interactions between the two, e.g. Environmental Health Officers and Planners in Scotland.

2. Stage 1 – Outcomes

INTRODUCTION

- 2.1 The initial focus of Stage 1 was to gain an overview of the differing approaches to air quality within LDPs and the overall representation of air quality. This included analysis of the direct representation of air quality within LDPs, and the creation of a scoring matrix for air quality specific policies. This was followed by an assessment of indirect air quality policies within LDPs.
- 2.2 To build upon the scoring matrix, the language of the air quality specific policies was examined to identify key themes and commonalities to inform the content and language of any air quality specific policies recommended for consideration as part of the development of NPF4.

Approaches to Air Quality

- 2.3 Different approaches to managing air quality are apparent across LDPs and LAQM. In LDPs for example, air quality may be directly represented by an air quality specific policy and may also be mentioned within other policies and topic areas. Contrastingly, an LDP may not have an air quality specific policy and there may be little mention of air quality or air pollution throughout an LDP.
- 2.4 The reasoning behind these apparent differences has been explored. For example, whether air quality was not always fairly represented in LDP because there is not clear guidance on how it should be represented, whether it's because air quality issues are not apparent within the area of the Local Planning Authority responsible for the LDP (i.e. no AQMAs), or whether it's because air quality is underrepresented within the planning framework, or whether it's a combination of the above. These conclusions could inform NPF4 in the context of air quality and development plan policy to ensure that NPF4 can effectively set out and guide the best practice approach for implementation across Scotland.

Direct Air Quality Representation

- 2.5 The research project ‘*Adoption of Scottish Planning Policy in Local Development Plans*’⁷ has been reviewed to draw conclusions about the representation of air quality within LDPs in Scotland.
- 2.6 Firstly, the conclusions of the research project in regard to SPP, LDPs and air quality should be noted. As follows:
- “It was noted that SPP should provide a clear policy framework for the consideration of air quality in delivering healthy places in both Development Plans and Development Management. It was noted that at the moment there is very little policy direction as to how Development Plans and Development Management can ensure development does not have a detrimental impact on local air quality.”*
- 2.7 SPP states that development should “*consider the implications [...] for air [...] quality*” and in relation to mineral resources it states that proposals “*need to address [...] potential pollution of [...] air [...]*”.
- 2.8 Whilst the issue of air quality is addressed within SPP, as the review concluded, there is little direction on the actions Local Planning Authorities should take to improve and preserve air quality, and the policy measures which would support this.
- 2.9 Following a review of the research project ‘*Adoption of Scottish Planning Policy in Local Development Plans*’ and of the policies within Scottish LDPs, it is clear that there are discrepancies in the approach to air quality within Scottish LDPs and that the topic is represented in varying degrees. This may be partially attributed to the lack of guidance provided within SPP on air quality.
- 2.10 Of the 34 Local Planning Authorities (including 32 Council areas and 2 National Park Authorities), 17 have a policy within their LDP which is specifically focused (in full or part) on air quality or air pollution. In addition to policies which directly relate to air quality, several of the Local Planning Authorities have policies which are not centred on air quality, but which make the link to air quality or air pollution. This is summarised in Table 2.11a below.
- 2.11 To provide a comparative example, Stirling Council does not have a specific air quality policy, or any directly linked policies, whereas East Lothian Council has a specific air quality policy and several other directly linked policies.

⁷ Adoption of Scottish Planning Policy in Local Development Plans, Scottish Government, 9 October 2019

Table 2.11a Summary of Air Quality Representation within LDP

Local Planning Authority	Active AQMA present within LPA Area?	Specific Air Quality Policy? (Table 2.16a Ref No.)	Other Directly Linked Policies
Aberdeen City Council	Yes	Yes – Policy T4: Air Quality (Ref. 1)	Policy NC5: Out of Centre Proposals Policy R8: Renewable and Low Carbon Energy Developments
Aberdeenshire Council	No	No	Policy R3: Minerals and hill tracks
Angus Council	No	No	Policy DS4: Amenity Policy Policy PV17: Waste Management Facilities Policy PV19: Minerals
Argyll and Bute Council	No	No	Policy LDP STRAT 1: Sustainable Development
Clackmannanshire Council	No	No	Policy SC11: Transport Networks Policy SC13: Decentralised Energy Policy EP10: Minerals – General Principles Policy EA11: Environmental Quality Policy EA16: Waste Management Facilities
Dumfries and Galloway Council	No	No	Policy OP1: Development Considerations Policy ED13: Minerals Policy IN3: New Waste Management Infrastructure
Dundee City Council	Yes	Yes – Policy 40: Air Quality (Ref. 2)	Policy 39: Environmental Protection
East Ayrshire Council	No	Yes – Policy ENV12: Water, air and light and noise pollution (Ref. 3)	No
East Dunbartonshire Council	Yes	No	Policy 4: Sustainable Transport Policy 15: Renewable Energy and Low-Carbon Technology
East Lothian Council	Yes	Yes – Policy NH12: Air Quality (Ref. 4)	Policy T19: Transport Improvements at Musselburgh Town

Local Planning Authority	Active AQMA present within LPA Area?	Specific Air Quality Policy? (Table 2.16a Ref No.)	Other Directly Linked Policies
			Centre Policy T26: Transport Improvements at Tranent Town Centre Policy MIN8: Mineral Extraction Criteria
East Renfrewshire Council	No	Yes – Policy E3: Protecting Air Quality (Ref. 5)	Policy D1: Placemaking and Design Policy E12: Minerals
Edinburgh City Council	Yes	Yes – Policy Env 22: Pollution and Air, Water and Soil Quality (Ref. 6)	No
Falkirk Council	Yes	Yes – PE26: Air Quality (Ref. 7)	Policy PE01: Placemaking Policy IR05: Transport Assessment Policy IR12: Energy Generation Development Policy IR16: Assessment of Mineral Proposals
Fife Council	Yes	No	Policy 10: Amenity
Glasgow City Council	Yes	No	The Placemaking Principle Resource Management
Highland Council	Yes	Yes – Policy 73: Air Quality (Ref. 8)	Policy 28: Sustainable Design Policy 72: Pollution
Inverclyde Council	No	Yes – Policy 12: Air Quality (Ref. 9)	Policy 4: Supplying Energy
Midlothian Council	No	Yes – Policy ENV 17: Air Quality (Ref. 10)	No
Moray Council	No	No	DP1: Development Principles EP14: Pollution, Contamination and Hazards DP9: Renewable Energy
North Ayrshire Council	No	No	Policy 27: Sustainable Transport and Active Travel Policy 33: Responsible Extraction of Mineral Resources
North Lanarkshire	Yes	No	Policy EDQ 3: Quality of

Local Planning Authority	Active AQMA present within LPA Area?	Specific Air Quality Policy? (Table 2.16a Ref No.)	Other Directly Linked Policies
Council			Development
Orkney Islands Council	No	No	No
Perth and Kinross Council	Yes	Yes – Policy 57: Air Quality (Ref. 11)	Policy 33A: New Proposals for Renewable and Low-Carbon Energy Policy 36B: New Waste Management Infrastructure
Renfrewshire Council	Yes	Yes – Policy ENV5: Air Quality (Ref. 12)	Policy I4: Renewable and Low Carbon Energy Developments
Scottish Borders Council	No	Yes – Policy EP16: Air Quality (Ref. 13)	Policy PMD1: Sustainability Policy IS10: Waste Management Facilities
Shetland Islands Council	No	No	No
South Ayrshire Council	No	Yes – LDP Policy: Air, Noise and Light Pollution (Ref. 14)	Strategic Policy 1: Sustainable Development LDP Policy: Waste Management LDP Policy: Minerals, Aggregates and Coal
South Lanarkshire Council	Yes	Yes – Policy DM17: Air Quality (Ref. 15)	Policy 2: Climate Change Policy 13: Green Network and Greenspace Green Network Policy 15: Travel and Transport Policy 17: Waste Policy MIN5: Controlling Impacts from Extraction Sites
Stirling Council	No	No	No
West Dunbartonshire Council	No	Yes – Policy ENV8: Air, Light and Noise Pollution (Ref. 16)	No
Western Isles (Comhairle nan Eilean Siar) Council	No	No	Policy ED5: Minerals
West Lothian Council	Yes	Yes – Policy EMG 4: Air Quality (Ref. 17)	Policy DES 1: Design Principles Policy MRW 8: Waste Management Facilities
Cairngorm National	No	No	Policy 7: Renewable

Local Planning Authority	Active AQMA present within LPA Area?	Specific Air Quality Policy? (Table 2.16a Ref No.)	Other Directly Linked Policies
Park Authority			Energy
Loch Lomond National Park Authority	No	No	Overarching Policy 1 Overarching Policy 2 Renewable Energy Policy 1

Air Quality Policy – Scoring Matrix

2.12 The initial review of the LDPs found that air quality regularly features as a standalone policy and is also integrated into other policies. Integrated policy approaches are largely recognised as an essential part of sustainable development and in achieving alignment and cooperation across government bodies and departments⁸. Integrated policies, which consider more than one topic area, recognise the interconnections between policy areas of the LDP. They are thought to be more wide-reaching in terms of their impact, as they influence other policy areas as well as their own.

2.13 The 17 specific air quality policies were analysed further to make a judgement on how well they were integrated with other policy areas. A scoring matrix based on the complexity of the policy and the degree in which it integrates with other LDP policies was created.

2.14 The qualitative scoring matrix is defined in Table 2.15a. Firstly, it should be noted that the presence of any air quality specific policy, whether ‘simple’ or ‘integrated’ is considered better than having no air quality policy at all. As the matrix moves from ‘simple’ to ‘basic’ to ‘advanced’ it increasingly incorporates the factors considered necessary within an air quality policy. The policies classified as ‘integrated’ contain linkages to other topic areas; namely ‘sustainable transport’, ‘behavioural change’ and ‘placemaking’.

2.15 A policy incorporating all of the matrix scoring criteria is integrated with other topic areas and contains the factors considered appropriate and proportionate for an air quality policy. This type of policy would be viewed as more effective than a ‘simple’ only policy, for example.

Table 2.15a Air Quality Policies Scoring Matrix

Score	Code
SIMPLE: the policy contains a simple statement regarding air quality, development and adverse effects.	S
BASIC: the policy recommends that an air quality assessment be undertaken.	B
ADVANCED: the policy states that mitigation measures to prevent air quality impacts must be considered.	A
INTEGRATED WITH SUSTAINABLE TRANSPORT: the policy is integrated with sustainable transport initiatives. Sustainable transport actions would include those relating to public transport, low emission vehicles and active	I-ST

⁸ C, Ling., K, Hanna. & Dale, A. (2009) A Template for Integrated Community Sustainability Planning, Environmental Management 44: 228-242

Score	Code
travel.	
INTEGRATED WITH BEHAVIOURAL CHANGE: the policy is integrated with behavioural change initiatives. Behavioural change with regards to air quality would aim to encourage actions that bring about its improvements, including modal shift.	I-BC
INTEGRATED WITH PLACEMAKING: the policy is integrated with placemaking and comments in relation to this and air quality. Placemaking here refers to correct placement and design of development i.e. not introducing receptors to areas of poor air quality and ensure there is no land-use conflict.	I-P

2.16 The 17 specific air quality policies were scored in line with the matrix above, and the results are presented in Table 2.16a below. The reference numbers of the air quality policies correlate to the authorities in Table 2.11a and the full-length policies are presented in Annex B.

Table 2.16a Scoring Results of Air Quality Policies

Score	Policies Ref.																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
S																	
B																	
A																	
I-ST																	
I-BC																	
I-P																	

Note: Shaded boxes show how policies have been scored, lighter shading indicates a weaker score, where a linkage is only implied. Scoring is explained in table 2.15a and paragraphs 2.12-2.16.

2.17 It is noted, that some of the air quality policies incorporate more of the matrix than others. For example, Policy Ref No. 17 scores within all areas and makes links between air quality, sustainable transport, behavioural change and placemaking. Comparatively, Policy Ref No. 14 only scores within the ‘simple’ area and constitutes a basic statement surrounding air quality and adverse effects. As an air quality policy, it doesn’t maximise it’s potential by including more of the factors considered appropriate for an air quality specific policy.

2.18 The scoring results suggest the need for standardised text, specifically surrounding placemaking, sustainable transport and behavioural change, to be recommended for inclusion within air quality specific policies; as, at present, these topic areas are underrepresented.

2.19 This would constitute positive action towards the recommendations of the ‘*Cleaner Air for Scotland strategy: Independent Review*’, notably, ‘T8: Spatial planning and transport planning need to work together to be effective in ensuring local decision-making does not undermine national objectives for air quality’ and ‘LG1: Realising effective Placemaking in practice’. For local decision-making to ensure it does not conflict with air quality, the linkages between the two must

resonate throughout LDPs and inclusion of an integrated air quality policy would help achieve this.

Indirect Air Quality Representation

2.20 In addition to direct linkages with air quality, the LDP policies were examined further for potential missed opportunities where air quality could have been linked to the policy but was not.

2.21 Air pollution is known to adversely affect human health, the environment (ecosystems) and amenity. Consequently, air quality can be influenced by many factors. Actions and measures that are often designed and adopted to influence these factors can therefore impact on air quality.

2.22 Figure 2.22a below depicts some of the linkages between air quality and other topics which regularly feature within LDP and LAQM. The topic of active travel (i.e. walking and cycling) is often connected to air quality; as an increase in the number of people walking or cycling rather than driving a vehicle, results in less vehicle trips, reduced emissions from road vehicles and therefore reduced ground level concentrations of air pollutants, thus resulting in improved air quality. Whilst this oversimplifies the relationship between air quality and active travel, the general principle here applies; that positive actions in certain topic areas can positively impact air quality.

Figure 2.22a Linkages to Air Quality



2.23 All of the LDPs reviewed had some policy that focused on or mentioned active travel, however only a few specifically made the connection with air quality. These may be considered as ‘missed opportunities’ to represent air quality within the LDP.

2.24 Some topics which link to air quality were underrepresented in the LDPs. For example, the uptake of Electric Vehicles (EVs) and Ultra Low Emission Vehicles (ULEVs) and measures to install charging points. Measures relating to EVs are regularly utilised within LAQM and AQAPs. Of the LDPs reviewed, 14 of the 34 Local Planning Authorities have policies which detail EVs/ULEVs and charging points.

- 2.25 In view of the Climate Emergency declared by the Scottish Government in April 2019 and the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019⁹ which received Royal Assent on 31 October 2019, opportunities to implement policy within LDPs that result in carbon emission reductions, such as those relating to EVs/ULEVs, should be taken.
- 2.26 The NPF4 will incorporate SPP and will have development plan status. The development of the NPF4 therefore presents an opportunity in terms of air quality. The current SPP and NPF3 provides little direction for the management of potential air quality issues. As noted in the previous sections, air quality is not consistently represented in LDPs and this could, in part, be attributed to the current representation of air quality within SPP and NPF3.
- 2.27 The development of NPF4 therefore presents an opportunity to provide a consistent approach to air quality in national planning policy and also direction for the representation of air quality within LDPs if further, additional representation of air quality is required at the local level; to account for specific air quality issues or conditions within the Local Planning Authority. NPF4 policy that generates consistent approaches would set out the topic of air quality and state the negative impacts of poor air quality on human health and ecosystems. It would also link air quality to other relevant policy areas, to ensure integration where possible.

Language Analysis

- 2.28 In addition to the scoring of air quality specific policies, the 17 policies were analysed further in relation to the language used. Common themes, phrases and words are noted throughout the policies; which overall, seem to exhibit a similar message although with a varying degree of complexity.
- 2.29 The key words or phrases picked out and their respective counts are displayed below in Table 2.29a.

Table 2.29a Language Analysis of Air Quality Policies

Word or Phrase	Count
Development	17
Mitigation (mitigation measures, mitigate)	15
Air Quality Assessment (assessment)	13
Significant (significance)	10
Adverse	8
Cumulative	6
Receptor / Exposure	6
Air Quality Management Area (AQMA)	5
Detrimental	5
Sensitive	5
National Air Quality Standards / Objectives	4
Exacerbate	4
Environment	4
Health	4
Link to other policy area (i.e. transport)	3
Human	3
Air Quality Action Plan (AQAP)	2

⁹ Scottish Government, Climate change: <https://www.gov.scot/policies/climate-change/> [accessed February 2020]

- 2.30 As shown by the count of 17, all of the air quality policies made the link between air quality impacts and development proposals. 15 of the 17 policies then stated that air quality impacts would need to be mitigated and mitigation measures implemented. A further 13 then detailed the potential need for an air quality assessment to be undertaken.
- 2.31 The policies are also heavily centred around the impacts of air quality; suggested through use of words such as 'adverse', 'detrimental' and 'exacerbate'. They are concerned with establishing the likelihood of impacts occurring and how impacts can be lessened and mitigated to an acceptable level through potential modification of approach.
- 2.32 In addition, three of the policies are noted to link to other key policy areas, such as transport and active travel. This is similar to how other policies were found to often link to air quality (see Paragraph 2.22), and also reflects on how the majority of policies did not score within the 'integrated' section of the scoring matrix. For the determination of air quality impacts the word 'significant' or 'significance' appears in 10 of the policies. However, no definition is given and therefore the method by which each Local Planning Authority would determine significance is not stated or known.
- 2.33 Policies score better than others within the scoring matrix largely due to varying complexities and integration with other LDP policy areas. Those policies which scored well could be used to determine future suggestions relating to the wording and language contained within air quality policies; for national planning policy and LDP, if required due to specific local air quality issues or conditions.

Summary of Stage 1

- 2.34 The policy links between air quality and other disciplines including transport, climate change and sustainability are well documented. Therefore, the direction and application of any policy from these disciplines can affect air quality. The review of LDP policies across Scotland indicated a varying approach in linking air quality with other relevant policy areas. Standalone air quality policies were well represented in the policy database, from simple statements to more prescriptive policies referencing approach to assessments and assigning significance to potential air quality impacts. There were, to a lesser extent, examples of policies linking air quality with transport, placemaking and behaviour change. However, there were also LDPs where air quality was not mentioned, either directly or indirectly. There are opportunities to link air quality in NPF4 with other policy areas, as this approach is likely to provide the greatest air quality improvements that are sustainable. NPF4 therefore presents an opportunity to ensure air quality is consistently represented across Scotland even when it is absent from LDPs.
- 2.35 The varying degrees of inclusion of air quality is partially attributed to the lack of direction within the SPP. This was recognised within the Scottish Government 2019 research project¹⁰ where feedback from consultees stated that the SPP was often unclear and not prescriptive in providing direction for the implementation of SPP within LDPs. The above, coupled with the fact that Scotland does not have widespread air quality issues and therefore it is not a

¹⁰ Adoption of Scottish Planning Policy in Local Development Plans, Scottish Government, 9 October 2019

priority issue for a number of Local Planning Authorities, may explain the differing approaches to air quality within Scottish LDPs.

- 2.36 The 17 specific air quality policies found across the LDPs were analysed in detail, to assess their content and the language used. Some of the policies scored better than others, within the developed scoring matrix, in terms of their complexity and degree of integration with other policy areas. There are however some commonalities that exist between the air quality policies, with some more developed than others. This presents an opportunity to consider within NPF4 a sufficiently prescriptive air quality specific policy, referencing the need to assess air quality and the need for mitigation, allowing it to be widely applied, removing the need for Local Planning Authorities to develop, within their respective LDPs, detailed air quality specific policies unless necessary due to local factors.
- 2.37 In respect to the integrated policies that relate to air quality that were extracted from the LDP review, there is scope to utilise the high scoring policies from the matrix to formulate standardised statements to be incorporated within air quality specific policies of the NPF4. Also, air quality can be referenced in NPF4 policies relating to transport, placemaking and behavioural change therefore promoting best practice identified as part of this research project. This would ensure that air quality has both a specific policy as well as being integrated with other policy areas allowing them to be more wide-reaching.
- 2.38 Conclusions from Stage 1 include the following:
- Linkages between air quality and other related topic areas should be made within NPF4, where possible, to promote integration of topic areas at the national level and also the local, LDP level; and
 - NPF4 has the opportunity to provide a sufficiently prescriptive air quality specific policy, removing the need for Local Planning Authorities to develop, within their respective LDPs, detailed air quality specific policies unless necessary due to local factors.
- 2.39 Stage 2 develops on the research and findings of Stage 1 to set Scotland-specific case studies within a UK-wide and Europe-wide context. Comparisons of policy and practice have then been utilised to inform recommendations of best practice.

3. Stage 2 – Outcomes

INTRODUCTION

- 3.1 The aim of Stage 2 was to investigate approaches to air quality within planning in the UK and Europe as legal obligations and air quality standards are largely aligned.
- 3.2 A number of case studies of Scottish Local Planning Authorities were undertaken to further explore the representation of air quality within LDPs (presented in Stage 1) and LAQM, and to understand the drivers behind the inclusion of air quality. The case studies also identified best practice approaches on the inclusion of air quality within LDPs and how these can inform the inclusion of air quality within NPF4.
- 3.3 The Stage 1 review of LDP policies was followed by a review of the air quality and planning guidance documents, widely used by Local Planning Authorities, as well as a review of Supplementary Guidance (SG) for air quality published in Scotland. A brief discussion on the application of Clean Air Zones (CAZ) and Low Emission Zones (LEZ) was also included, as they were considered one of the key measures in urban centres in addressing elevated air pollution levels.
- 3.4 The wider research review considered the planning regimes in England and Wales and their approach to air quality in their planning frameworks. The review also referenced recommendations by the National Institute of Health and Care Excellence (NICE) and Public Health England (PHE) on air quality and planning to illustrate the need for air quality to be considered adequately within planning policy.
- 3.5 A review of European research projects on addressing air quality within development planning was undertaken. It focused on the more integrated approaches, considered to provide greater air quality improvements.

Air Quality and Planning Guidance Documents

- 3.6 To further understand the approaches to air quality policy and management across Scotland, widely used guidance documents were reviewed and are referred to collectively as 'Air Quality and Planning Guidance'. The guidance documents, although considered as best practice in relation to air quality and planning, are only part of wider set of best practice examples, discussed further as part of this project. Best practice in this context is defined as the approach which produces greater air quality improvements when compared to alternatives.
- 3.7 Scotland and other countries in the UK all have similar guidance documents which promote best practice in relation to air quality and the planning system and are widely used across the regions. Environmental Protection UK (EPUK) and the IAQM guidance *Land-Use Planning & Development Control: Planning for Air Quality*¹¹ was most recently updated in 2017 and contains principles that are

¹¹ EPUK and IAQM, Land-Use Planning & Development Control: Planning for Air Quality, 2017 v1.2

applicable to the whole of the UK. Environmental Protection Scotland (EPS) and the Royal Town Planning Institute (RTPI) Scotland adapted the EPUK-IAQM guidance to make it Scotland-specific and produced *Delivering Cleaner Air for Scotland – Development Planning & Development Management*¹² in 2017. The IAQM has also published a Position Statement: *Mitigation of Development Air Quality Impacts*¹³, detailing the approach to mitigation. This guidance states that air quality should be considered at the earliest stage of the planning process, including within local planning policy, to successfully prevent impacts and that priority should be given to preventing or avoiding air quality impacts before they occur. A review of Scottish LDPs and SGs, discussed in detail in the following sections, found that the Air Quality and Planning Guidance documents are widely used across Scotland.

- 3.8 Both guidance documents stress the importance of sound LDP policies to ensure that air quality is a prime consideration within the planning system; and the role that LDPs have in working to reduce air pollution and exposure to air pollution. Specifically, regarding Scotland and as the planning system is plan-led, the EPS-RTPI Scotland guidance states that it is essential for LDPs to provide sufficient reference to air quality to enable its consideration as a material issue within planning and the determination of planning applications. In terms of influencing air quality outcomes, both documents promote collaboration between professionals and departments within an authority and the full integration of inputs from a wide range of policy areas. This concept of integration reverts back to earlier discussions within this project, and the idea that integrated policy approaches are likely to be more effective in achieving the desired policy outcomes.
- 3.9 The Air Quality and Planning Guidance outline when an air quality assessment may be required and include a matrix for determining the significance of predicted effects. The review of air quality policies within LDPs (*Air Quality Policy – Scoring Matrix* section) undertaken for the project identified a number of policies reflecting the guidance documents approach. The word ‘significant’ or ‘significance’ was found within 10 of the air quality specific policies (*Language Analysis* section) however, no approach was provided in defining significance. In addition, both guidance documents have been extensively referenced and used as the basis of SG documents produced by individual Local Planning Authorities.
- 3.10 The above guidance documents contain in their majority the relevant information required to inform air quality specific policies, both in terms of air quality assessments and assessing significance, however, this could be better utilised in LDPs. They provide the air quality assessment framework and mitigation strategies to complement the policy objectives set out in national planning policy, both in England (NPPF) and Scotland. As suggested in Stage 1, official recognition of this guidance at the LDP level could be useful to ensure a common approach across Scotland.

¹² EPS and RTPI Scotland, *Delivering Cleaner Air for Scotland – Development Planning & Development Management*, 2017

¹³ IAQM, *Position Statement: Mitigation of Development Air Quality Impacts*, June 2018 v1.1

Air Quality Supplementary Guidance

- 3.11 The review of SG was driven in part to provide context to the case study work but also to investigate the contrasting viewpoints that exist within the CAFS Independent Review and the Planning (Scotland) Act¹⁴. Specifically, recommendation 'T9: Make Supplementary Planning Guidance on Air Quality mandatory' listed within the CAFS Independent Review and the Planning (Scotland) Act provision to remove the statutory SG from legislation to ensure that policies are more clearly integrated within development plans. However, it should be noted that non-statutory SG could still be produced by the Local Planning Authority.
- 3.12 SG is detailed guidance on a specific topic area, and can be air quality specific, which expands on and provides details on the implementation of LDP policies and proposals. In the context of air quality, SG usually contain information specific to the Local Planning Authority and also general guidelines for completing air quality assessments, assessing the significance of predicted effects and mitigation that may be required to address any adverse effects.
- 3.13 The Scottish Local Planning Authorities found to have air quality SG are listed below, and the SG is noted as statutory or non-statutory:
- Aberdeen City Council – Topic Area 5: Transport, air quality & noise (statutory);
 - Dundee City Council – Air Quality and Land Use Planning (statutory);
 - East Dunbartonshire Council – Air Quality Planning Guidance (statutory);
 - Fife Council – Low Carbon Fife: Section 4 Air Quality Development Guidelines (statutory);
 - Glasgow City Council – Air Quality and Planning Guidance (non-statutory);
 - Perth and Kinross Council – Air Quality and Planning (statutory); and
 - West Lothian Council – Air Quality (non-statutory).
- 3.14 All of the SG listed above make reference to air quality and planning guidance, this being either EPUK-IAQM guidance or EPS-RTPI Scotland guidance detailed in the previous section. This implies that specific air quality SG documents might not be required. Whilst air quality SG can be specific to the Local Planning Authority area, the bulk of information, including criteria for when an air quality assessment is required and assessing significance of predicted effects, is usually generic and sourced from the Air Quality and Planning Guidance.
- 3.15 It is worth noting that a number of SG in England, not reviewed as part of this project, include a detailed approach in undertaking emission assessments for medium/major developments. This involves assigning a monetary value to air quality effects from development proposals, otherwise referred to as a 'damage-cost' calculation. The costs calculated are used to identify whether the proposed

¹⁴ Planning (Scotland) Act 2019, passed on 20 June 2019

mitigation is adequate and if required identify the cost of any additional mitigation needed. The air quality specific SG in Scotland, listed above, do not reference the need to undertake an emission assessment.

- 3.16 The Air Quality and Planning Guidance remit does not currently cover emission assessments. An update on the approach to Air Quality damage cost was published by Defra in 2019¹⁵, designed to assess different policy options rather than individual development proposals. This approach has been applied by English Local Planning Authorities to assess development proposals. As the damage cost approach has not been formally recommended by IAQM or Defra for use in assigning damage costs from pollution on individual projects and considering it has only been applied to major projects, it is not considered relevant or appropriate for consideration in the NPF4.
- 3.17 Based on the above, the CAFS Independent Review recommendation 'T9: Make Supplementary Planning Guidance on Air Quality mandatory' places an unnecessary burden on Local Planning Authorities to produce air quality SG when other guidance documents already exist for a similar purpose. In addition, as the Planning (Scotland) Act removes statutory supplementary guidance, recognition of the recommended use of Air Quality and Planning Guidance documents at the LDP level could be considered sufficient.

A Review of Practice – Scotland Case Studies

- 3.18 Through the review of Scottish LDPs, it became clear that there were different approaches to managing air quality and the scale at which air quality was represented within LDPs varied. On one hand, some had air quality specific policies and/or integrated with other policy areas. Whereas, some only mentioned air quality indirectly. To understand the potential reasoning for the different approaches and to assess them further, it was appropriate to consider the LAQM context (e.g. whether AQMA's were present) alongside the LDP.
- 3.19 Local Planning Authorities, under the requirements of the LAQM framework, are required to review and assess air quality within their administrative area. The air quality work undertaken by local authorities varies and in order to fully understand the complexity of the different approaches a series of case studies were undertaken. The case study work aims to provide best practice examples and identify the varying degrees by which air quality is considered with the planning system in light of the requirements set by the LAQM framework.
- 3.20 In addition, the CAFS Strategy Review¹⁶ recognises that there is progress to be made in SPP and local policy in order to achieve a fully cohesive system. To understand and enable such a system, it is important to understand the action Local Planning Authorities are taking at present, and the respective drivers for this; which involves the consideration of LAQM.
- 3.21 In terms of air quality, this involves several factors from both LDP and LAQM which include:
- The land use of the area (e.g. urban, rural, mountainous or coastal);

¹⁵ Ricardo Energy & Environment (2019) Air Quality damage cost update 2019, Report for Defra AQ650

¹⁶ Scottish Government, Cleaner Air for Scotland Strategy – An Independent Review, 29 August 2019

- Relating to the above; the size, population and sources of pollution;
- Air quality specific LDP policies and others;
- The presence or absence of AQMAs; and
- How the LAQM process is actioned within the area.

3.22 Local Planning Authorities were chosen as case studies to explore links between LDP, LAQM and air quality further. Of the 32 Local Planning Authorities (the two National Park Authorities were excluded), reviewed as part of the research project, 14 of them had one or more AQMA declared within their administrative area at the time of writing. Of these 14 authorities with AQMAs, 10 had an air quality specific policy with their LDPs and 13 directly mentioned or linked to air quality within another LDP policy.

3.23 The selection process was based not only on what was considered best practice, in line with published guidance and policy, but also to represent a cross section of rural and urban areas. This ensured that examples of Local Planning Authorities with varying degrees of air quality issues, or lack of issues, and varying representation of air quality within LDPs were considered. Table 3.23a summarises this exercise.

Table 3.23a Summary of Case Studies

Glasgow City Council

- No air quality specific policy although some direct representation of air quality within LDP
- Air quality Supplementary Guidance
- Largest Scottish city in terms of population (approximately 600,000)
- 3 AQMAs

A review of the 2019 APR¹⁷ found that during 2018 one automatic monitor and 7 diffusion tubes recorded exceedences of the NO₂ annual mean standard; this was an improvement on 2017.

- Proposals are ongoing to revoke two of the AQMAs.
- Glasgow is the first of four Scottish cities to implement a Low Emission Zone (LEZ). The Glasgow LEZ is being implemented in two phases. The first phase from December 2018 targets buses and required 20% of bus journeys going through the city centre to be Euro VI compliant, with this target increasing by 20% each year. The second phase, from the end of 2022, will apply to all vehicle types; requiring petrol vehicles to be Euro 4 and diesel vehicles to be Euro 6/VI. LEZ aims to “accelerate the pace of improvement in Glasgow’s air quality”.
- Glasgow City Council are investing heavily in public realm, cycle infrastructure and sustainable transport projects.
- 93 EV charge points have been installed with 60 more planned for 2019/20 and a further 70 by 2020/21.
- Implemented an ‘Energy and Carbon Masterplan’ with the aim of reducing carbon dioxide emissions by 30% by 2020.

Summary: Whilst the representation of air quality within the LDP is not extensive, the

¹⁷ Glasgow City Council, 2019 Air Quality Annual Progress Report (APR) for Glasgow City Council, August 2019

Council is implementing several air quality related measures, including a LEZ. Improvements in air quality have been noted as the Council intends to revoke two AQMAs.

Orkney Islands Council

- No air quality specific policy or policies that directly link air quality
- No AQMAs
- Coastal / rural area, small population

A review of the 2019 APR¹⁸ found that air quality monitoring data is at consistently low concentrations and below the air quality standards i.e. air quality is generally good.

- The Council has a Carbon Management Plan and Green Travel Plan.
- In the process of drafting a new EV and ULEV strategy.
- Orkney Sustainable Energy Strategy 2017-2025 was published in 2017.
- The second largest town of Stromness has a Low Carbon Travel and Transport (LCTT) project.

Summary: Air quality is not represented within the LDP, however there are no air quality issues within the Council's area. Other strategies that link to air quality do exist.

North Lanarkshire Council

- No air quality specific policy although small direct representation of air quality within LDP
- Inland, east of Glasgow city and captures the outskirts
- 4 AQMAs

A review of the 2019 APR¹⁹ found that during 2018, two diffusion tubes recorded exceedences of the NO₂ annual mean standard.

- Intentions to revoke one AQMA.
- Key projects include: an air quality awareness campaign 'Choose Clean Air', traffic management improvements at Chapelhall, funding towards active travel routes and input into projects, the ECO Stars fleet recognition scheme and improvements in the vehicle efficiency of the Council's fleet.
- The North Lanarkshire Council Carbon Management Plan 2019-2022 commits to a target reduction in emissions of 21% from the baseline year of 2015/16.

Summary: Air quality is not extensively addressed by LDP; however, the Council is implementing measures and improvements in air quality have been noted by the intentions to revoke one of the four AQMAs.

Moray Council

- No air quality specific policy although some direct representation of air quality within LDP
- Rural and partially coastal
- No AQMAs

A review of the 2019 APR²⁰ found that no specific air quality issues have been identified and no exceedences of the air quality standards were noted for the 5-year period 2014 to 2018.

¹⁸ Orkney Islands Council, 2019 Air Quality Annual Progress Report (APR) for Orkney Islands Council, June 2019

¹⁹ North Lanarkshire Council, 2019 Air Quality Annual Progress Report (APR) for North Lanarkshire Council, August 2019

²⁰ Moray Council, 2019 Air Quality Annual Progress Report (APR) for Moray Council, June 2019

- The Moray Council Active Travel Strategy 2016-2021 sets to encourage more non-motorised travel.
- The Second Moray Local Transport Strategy (MLTS2) covers 7 topics: active travel, public transport, ports and harbours, roads, freight transport, travel behaviour and traffic management.
- Aim to achieve Greenhouse Gas (GHG) emission reduction of 35% by 2030, compared to a 2005 baseline year.
- Monitor traffic flows and air quality in tandem; recognising the relationship between them.

Summary: Air quality is not extensively addressed by LDP however no air quality issues are noted. Wider Council strategies incorporate goals relating to air quality.

Falkirk Council

- Specific air quality policy and other direct representation within LDP
- Contains industrial and urban areas
- 4 AQMAs (one of which is declared for industry)

A review of the 2019 APR²¹ found that during 2018, one diffusion tube measured NO₂ concentrations above the annual mean standard, and there were two potential exceedences of the PM_{2.5} annual mean standard (although this was estimated from PM₁₀ levels).

- AQMAs are under review for revocation.
- There are now over 40 EV charging points in the Falkirk Council area.
- ECO Stars fleet recognition scheme now has over 200 members.
- Falkirk Council has been working closely with the East Central Scotland Vehicle Emissions Partnership (ECSVEP) to work on the objectives set out within the CAFS.
- Promoting air quality educational resources 'Learn About Air', and 'Take the Right Route' campaign which aims to promote active travel, car sharing and the use of public transport.
- Investing in a £842,000 cycle and pedestrian bridge and have implemented Forth Bike electric hire scheme.
- Council to undertake an industry modelling study to better understand and manage the industrial AQMA.

Summary: Air quality is well represented in LDP and the Council is implementing measures across a range of topic areas that influence air quality.

Inverclyde Council

- Specific air quality policy and other direct representation within LDP
- Mountainous and partially coastal
- No AQMAs

A review of the 2019 APR²² found that there have been no recorded exceedences of the air quality standards in the past five years.

- Working with Strathclyde Partnership for Transport (SPT) to support projects which achieve reduced emissions from road traffic.
- The target for reducing the Council's carbon emissions is set at 16% by 2021/22 from a 2007/08 baseline year.
- Promotion of active travel and public transport are detailed as key objectives.
- Currently developing a new Cycling Action Plan and have released a Climate

²¹ Falkirk Council, 2019 Air Quality Annual Progress Report (APR) for Falkirk Council, June 2019

²² Inverclyde Council, 2019 Air Quality Annual Progress Report (APR) for Inverclyde Council, June 2019

Change Plan.

Summary: Air quality is well represented in LDP, LAQM measures are limited however there are no reported air quality issues in the Council area.

- 3.24 Glasgow City Council has little direct representation of air quality within its LDP, (i.e. it does not have an air quality specific policy although air quality is directly mentioned within two other policies). There are current exceedences of the air quality standards within the city and the Council is taking action to address this with extensive air quality measures. Therefore, the lack of representation of air quality within the LDP does not correlate with a lack of air quality issues or a lack of action to improve air quality.
- 3.25 Orkney Islands Council has no direct representation of air quality within its LDP; there is not an air quality specific policy and air quality is not mentioned within other LDP policies. However, the measured pollutant concentrations are consistently low, therefore suggesting that the Council does not have any air quality issues.
- 3.26 North Lanarkshire Council has some direct representation of air quality within its LDP (i.e. air quality is mentioned within one policy, although no air quality specific policy is included). The Council has four declared AQMAs and is implementing measures to improve local air quality. These measures seem to have had some success, as noted by the plans to potentially revoke one of the AQMAs. It would be difficult to assign any of this success to the influence of the LDP.
- 3.27 Moray Council has some direct representation of air quality within its LDP (i.e. air quality is mentioned within three policies, although there is not an air quality specific policy). There are not any specific air quality issues identified and measured air pollutant concentrations have been consistently below the relevant standards. This is most likely attributed to the Council area being largely rural with air quality issues from road transport mostly absent. Therefore, air quality issues cannot be directly linked to the LDP representation.
- 3.28 Falkirk Council has extensive representation of air quality within its LDP (i.e. it has an air quality specific policy and air quality is directly represented within four further policies). The Council has current and previous exceedences of the air quality standards and is implementing a variety of integrated measures. Therefore, in this example the representation of air quality within the LDP correlates to the presence of air quality issues and the presence of extensive action to improve local air quality.
- 3.29 Inverclyde Council has good representation of air quality within its LDP (i.e. it has an air quality specific policy and air quality is directly represented within one additional policy). However there are no recorded air quality issues within the Council area. Therefore, the representation of air quality within the LDP does not correlate to the presence of air quality issues. In addition, good air quality cannot be attributed to measures included in the LDP as the Council air pollution levels have been historically low.
- 3.30 The case studies presented, bar Falkirk, suggest that the degree of air quality representation within LDPs does not necessarily correlate with the level of action

a Local Planning Authority is taking with the aim of improving air quality. In addition, positive air quality action within a Local Planning Authority cannot be credited to the LDP and planning system. The presence or absence of air quality issues within a Local Planning Authority area cannot be inferred by the representation of air quality within the LDP. It has not been possible to gauge whether the current, sometimes weak, relationships between LDP and LAQM have had a negative effect on the implementation of both frameworks or whether this effect is negligible.

- 3.31 In summary, whilst there is potential for LDP and LAQM to interact and work in synergy to manage air quality, this is not currently realised within SPP and LDP or at the LAQM level. Reference to LAQM is absent from SPP, and the relationship between SPP, LDP and LAQM could be better established within NPF4.

Clean Air Zones (England) and Low Emission Zones (Scotland)

- 3.32 Scotland's four largest cities: Glasgow, Edinburgh, Aberdeen and Dundee have implemented or are due to implement a LEZ. The Transport (Scotland) Act 2019²³ provides the legal framework to create LEZs in Scotland, with their main aim centred around reducing emissions in the city regions and encouraging the use of alternative modes of transport to private vehicle use.
- 3.33 A LEZ bans certain higher emission vehicles from a central zone in a city. The criteria for entry are determined on Euro emission standards. Vehicles are subject to a fixed penalty notice if they drive through the zone and do not meet these criteria.
- 3.34 Similar to LEZ, several Local Authorities in England are due to implement CAZs and London has a live Ultra Low Emission Zone (ULEZ). The principles for CAZ implementation are set out within the Clean Air Zone Framework²⁴ and a CAZ would likely impose the same criteria as a LEZ on certain vehicle types, however entry to the zone is not banned only subject to a charge.
- 3.35 In line with the Transport Act 2000²⁵ for CAZs and the Transport (Scotland) Act 2019²⁶ for LEZs any excess revenue raised from charges and penalty fines respectively must be reinvested to support sustainable transport measures and the air quality objectives of the zones; therefore contributing towards action to improve air quality. The overall effectiveness of LEZ and CAZ has not yet had the opportunity to be realised and therefore their recommendation as best practice is not confirmed.

English and Welsh Planning Frameworks

- 3.36 The National Planning Policy Framework (NPPF) sets out England's planning policy and has evolved from a series of Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG) that were consolidated into a single and simplified document in 2012. The latest version of the NPPF was published in

²³ Scottish Parliament, Transport (Scotland) Act 2019

²⁴ Joint Air Quality Unit, Clean Air Zone Framework, February 2020

²⁵ Transport Act 2000.

²⁶ Transport (Scotland) Act 2019.

2019. The NPPF considers air quality within several sections of text, these are partially reproduced in Table 3.36a.

Table 3.36a England's NPPF

Paragraph	Text
170	<p>Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <p>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of [...] air [...] pollution [...]. Development should, wherever possible, help to improve local environmental conditions such as air [...] quality [...]</p>
180	<p>Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development</p>
181	<p>Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.</p>
183	<p>The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.</p>

3.37 The NPPF is accompanied by web based supporting Planning Practice Guidance (PPG) (updated November 2019) which includes guiding principles on how planning can take account of the impacts of new development on air quality. In regard to air quality, the PPG states:

“The Department for Environment, Food and Rural Affairs carries out an annual national assessment of air quality using modelling and monitoring to determine compliance with relevant Limit Values. It is important that the potential impact of new development on air quality is taken into account where the national assessment indicates that relevant limits have been exceeded or are near the limit, or where the need for emissions reductions has been identified.”

Whether air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to have an adverse effect on air quality in areas where it is already known to be poor, particularly if it could affect the implementation of air quality strategies and action plans and/or breach legal obligations (including those relating to the conservation of habitats and species). Air quality may also be a material consideration if the proposed development would be particularly sensitive to poor air quality in its vicinity.”

3.38 The PPG sets out the information that may be required within the context of a supporting air quality assessment, stating that:

“Assessments need to be proportionate to the nature and scale of development proposed and the potential impacts (taking into account existing air quality conditions), and because of this are likely to be locationally specific. The scope and content of supporting information is best discussed and agreed between the local planning authority and applicant before it is commissioned. It is not necessary for air quality assessments that support planning applications to duplicate aspects of air quality assessments that will be done as part of non-planning control regimes, such as under Environmental Permitting Regulations.

[...] Mitigation options will need to be locationally specific, will depend on the proposed development and need to be proportionate to the likely impact. It is important that local planning authorities work with applicants to consider appropriate mitigation so as to ensure new development is appropriate for its location and unacceptable risks are prevented.”

3.39 The topic of air quality is clearly represented within the NPPF and PPG in England. The NPPF makes specific links between air quality and other policy areas, including; placemaking, traffic and travel management and green infrastructure. This represents an attempt to integrate topic areas and as discussed within Stage 1 this is thought to be more effective and wide-reaching in terms of improving air quality outcomes of planning policy. In addition, the NPPF makes reference to AQMAs and Clean Air Zones (CAZ) which presents an acknowledgement of LAQM.

3.40 In terms of statements and language, the NPPF and PPG both refer to compliance with ‘relevant Limit Values’ and ‘unacceptable levels’, however these terms are not necessarily determined or explained. As was the case with Scottish Policy reviewed in Stage 1, the lack of explanation within NPPF and PPG both suggest a reliance on other guidance, such as the EPUK-IAQM, for definition of such terms.

3.41 Similar to the NPPF for England, Planning Policy Wales (10th Edition) sets out the land use planning policies in Wales. The 10th Edition was published in December 2018 and contains Section 6.7 ‘Air Quality and Soundscape’ which includes air quality specific policies, these are presented in Table 3.41a.

Table 3.41a Planning Policy Wales

Paragraph	Text
6.7.6	<p>In proposing new development, planning authorities and developers must, therefore:</p> <ul style="list-style-type: none"> • address any implication arising as a result of its association with, or location within, air quality management areas, noise action planning priority areas or areas where there are sensitive receptors; • not create areas of poor air quality or inappropriate soundscape; and seek to incorporate measures which reduce overall exposure to air and noise pollution and create appropriate soundscape [...]
6.7.10	<p>It will be important to identify wider mitigation solutions to reduce air and noise pollution and to avoid exacerbating problems in existing air quality management areas or noise hotspots through the provision of green infrastructure identified as part of Green Infrastructure Assessments, by the provision of electric vehicle charging infrastructure or through promoting the need to consider effective design solutions. Planning authorities should work closely with bodies such as the Public Service Boards in the preparation of their well-being plans and seek input from their own Environmental Health departments.</p>
6.7.16	<p>Relevant considerations in making planning decisions for potentially polluting development are likely to include:</p> <ul style="list-style-type: none"> • location, including the reasons for selecting the chosen site itself; • impact on health and amenity; • effect of pollution on the natural and built environment and the enjoyment of areas of landscape and historic and cultural value; [...] • resilience, including where there may be cumulative impacts on air or water quality which may have adverse consequences for biodiversity and ecosystem resilience; • the risk and impact of potential pollution from the development, insofar as this might lead to the creation of, or worsen the situation in, an air quality management area, a noise action planning priority area or an area where there are sensitive receptors; [...]

3.42 Planning Policy Wales takes account of air quality and addresses the implications that development may have on air pollution. It refers to AQMAs and like NPPF it therefore acknowledges LAQM. In addition, it presents some integration with other policy areas by referring to ‘green infrastructure’, ‘electric vehicle charging infrastructure’ and ‘design principles’. Placemaking principles and the correct siting of development are listed under the main considerations for planning decisions in terms of pollution. However, the policy is shared with ‘soundscape’ and references to pollution are generalised rather than specifically being focused on air pollution. This is considered to unnecessarily dilute the air quality policy.

NICE and PHE

3.43 The NICE Quality Standards (QS) are produced to set out “priority areas for quality improvement in health and social care”. QS 181 (refer to Appendix C for full text)

covers air pollution from road traffic and health and is endorsed by the Department of Health and Social Care and supported by PHE. They are referenced here to demonstrate the need for air quality to be considered within planning.

- 3.44 Quality statement 1 focus is on the use of LDP and local planning to address air pollution and provide the vision for managing air quality. It encourages collaboration between departments and key partners and suggests that the integration of policy areas, such as sustainable transport, are key to providing joined-up local action. Quality statement 2 focuses on road-transport-related pollution and how this can be influenced by decisions at the early planning stage relating to the correct placemaking.
- 3.45 In terms of air pollution, planning policy and effective actions, QS 181 puts emphasis on the importance of integration across policy areas and the consideration of air quality issues at the earliest stage of the design and planning process. The quality standard provides some guidance for Local Planning Authorities in relation to planning policy, planning applications and best practice. Although improvements in air quality outcomes within the planning regime will be driven by obligations set out in the forthcoming NPF4, it is worth considering the NICE quality standards in the development of air quality policies within NPF4.
- 3.46 PHE is the executive agency of the Department of Health and Social Care in England. They undertake evidence-based research and provide expertise and scientific support to the national and local Government in England. Public Health Scotland has been established as part of the public health reform programme in Scotland.
- 3.47 In 2019, PHE published the report *Review of interventions to improve outdoor air quality and public health*²⁷. It details a hierarchy for the classification and prioritisation of air pollution interventions. Interventions are defined as 'Prevention', 'Mitigation' or 'Avoidance'; with prevention measures being the first priority followed by mitigation measures then lastly avoidance measures. A prevention intervention would aim to reduce emissions before they have occurred, a mitigation intervention would aim to reduce concentrations once the emission has occurred, and avoidance interventions aim to reduce exposure to pollutants once in the environment.
- 3.48 Interventions from all three categories of the hierarchy are implemented throughout Planning Policy. For example, interventions relating to active travel may aim to prevent emissions by encouragement of modal shift and reduction in car travel, and interventions that consider green infrastructure and green networks may aim to mitigate environmental concentrations of pollutants.
- 3.49 The principles of the hierarchy resonate with the rationale of the NICE QS 181, in that prevention of air quality issues should be prioritised. This prevention would be expected from the early stages of the planning and design, as is stated within QS 181.

²⁷ Public Health England, Review of interventions to improve outdoor air quality and public health, March 2019

European Experience

- 3.50 This section provides a brief overview of approaches to air quality within planning at a European level. This is not intended to be an in depth and exhaustive review of European approach to air quality and planning which falls outside the remit of this research project. According to the European Union report 'Spatial planning governance within EU policies and legislation and their relevance to the New Urban Agenda'²⁸ *'The competences for spatial planning lie on a national- or even sub-national or local level. The EU itself has no general competence assigned within this field. On the Member State level a wide variety of systems distributing the formal competences in spatial planning exists. These systems are rooted in national planning tradition and custom and differ significantly from each other.'* It is evident that the approaches to spatial planning across Europe vary significantly and therefore a degree of variation in the representation of air quality is expected. It is therefore unlikely that European examples will be directly applicable to the case of Scotland.
- 3.51 This section has therefore focused on air quality relevant resources and solutions to assist in planning, identifying a number of integrated approaches in addressing air quality particularly in an urban setting. As the NPF4 remit is that of an overarching planning policy, the European examples appear to be more suited to inform the development of LDPs.
- 3.52 The EU has a number of relevant policy initiatives and research projects relating to integrated spatial planning. The Urban Agenda for the EU²⁹ is one such initiative which aims to improve the quality of life in urban areas through a balanced, sustainable and integrated approach. As part of this Urban Agenda, partnerships have been created to develop and implement tangible actions to tackle urban planning challenges. The initiative includes 12 partnerships, including Air Quality, Sustainable Use of Land and Nature-Based Solutions.
- 3.53 The air quality partnership developed a number of online resources and training, including a code of practice for designing and implementing air quality plans, guidance on financing air quality plans for cities and local authorities and a training course on air quality and health. Therefore, there are resources to supplement the guidance, provided by the UK government and UK public institutions, that can be used by Local Planning Authorities in improving the air quality outcomes of their policies, including spatial planning in relation to air quality at LDP level.
- 3.54 The Sustainable Use of Land and Nature-Based Solutions Partnership³⁰ focuses on the sustainable use of land and on the use of nature as one potential solution to current societal challenges, namely nature-based solutions (NBS). NBS are innovative solutions inspired by nature which aim to harness the properties and services of natural ecosystems to help build environmental resilience. NBS has the potential to be cost-effective whilst giving rise to a more resource efficient,

²⁸ European Union, Spatial planning and governance within EU policies and legislation and their relevance to the New Urban Agenda, 2018.

²⁹ Available at: <https://ec.europa.eu/futurium/en/urban-agenda>

³⁰ Sustainable Use of Land and Nature-Based Solutions Partnership, Action Plan, October 2018

competitive and greener economy. However, NBS should be integrated and designed-in with other mitigating actions for improving air quality as it is acknowledged that the air quality gains can be marginal³¹.

3.55 Green infrastructure is a NBS commonly applied in an attempt to improve air quality, particularly in urban areas. The aim of the green infrastructure in this context would primarily be to reduce air pollutants by capture and deposition. Actions such as planting trees, building green roofs and green walls and maintaining existing green infrastructure also have co-benefits such as: microclimate regulation through shading, water retention and stormwater run-off mitigation, and noise insulation whilst positively contributing to amenity³².

3.56 Barcelona has a strong commitment to urban green infrastructure as a NBS for managing air quality. With a population density of around 16,000 inhabitants per km² it is one of Europe's most dense and compact urban areas. Green space represents 36.8% of the city area in Barcelona. The city has developed several strategies and measures to address these via an integrated approach. In 2013, the '*Green infrastructure and biodiversity plan to 2020*' was approved. It clearly links green infrastructure to provision of biodiversity and ecosystem services, including air quality. The plan puts forward measures such as: increasing street tree numbers, provision of more soil for street trees and an increase in city green spaces³³. Barcelona presents a positive example of NBS being taken forward.

3.57 The report 'Nature-Based Solutions and Re-Naturing Cities' was produced by the Horizon 2020 Expert Group as part of the EU Research and Innovation policy agenda for NBS and identified several interventions that could contribute to a NBS for regulating air quality. However, the report notes that the suggested interventions have not necessarily been proved effective yet and more evidence is needed. The interventions, which relate to non-climate services, are categorised based on land use type and have been reproduced from the report in Table 3.57a.

Table 3.57a Air Quality Regulation Interventions

Land Use	Intervention
Forests	<ul style="list-style-type: none"> • Protect and expand forested area to absorb gaseous pollutants and trap particulates.
Coastal areas	<ul style="list-style-type: none"> • Maintain vegetation in coastal wetlands, especially mangrove systems, to absorb gaseous pollutants and trap particulates.
Agricultural land	<ul style="list-style-type: none"> • Plant shelter belts to absorb gaseous pollutants, intercept aerosols from pesticides and trap particulates. • Use soil conservation measures (such as cover crops, wind

³¹ McDonald et al. (2007) Quantifying the effect of urban tree planting on concentrations and depositions of PM₁₀ in two UK conurbations

³² Raymond et al. (2017) An Impact Evaluation Framework to Support Planning and Evaluation of Nature-based Solutions Projects

³³ Raymond et al. (2017) An Impact Evaluation Framework to Support Planning and Evaluation of Nature-based Solutions Projects

	breaks and minimum or conservation tillage) to reduce wind erosion and hence airborne particulates.
Urban settings	<ul style="list-style-type: none"> • Protect urban green spaces, to absorb gaseous pollutants and trap particulates. • Plant trees alongside roads to trap particulates.

3.58 The above table focuses on several land uses and types, which could therefore be of relevance to Scotland. Whilst the above interventions are not tried and tested, they could be used as examples or starting points for NBS in Scotland. The brief examples presented above illustrate that such solutions are best incorporated within LDP rather than NPF4.

Summary of Stage 2

3.59 As part of Stage 2 the linkages and potential correlations between LDP and LAQM were explored further. Overall, the correlation between the two was found to be weak; and the presence or absence of air quality issues could not be assumed by the presence or absence of LDP policies, and vice versa. The forthcoming NPF4 has the opportunity to sufficiently reference the LAQM framework and associated supporting tools, thus removing the need for individual Local Planning Authorities to develop specific air quality policies within the LDPs and produce SG. NPF4 could therefore potentially strengthen the relationship between LDP and LAQM, as presently the two systems do not necessarily work in synergy.

3.60 Conclusions from Stage 2 include the following:

- The linkages between LDP and LAQM could be further realised and established by NPF4, for example; mentioning AQMAs could help provide consistency in their management within policy across Scotland;
- NICE and PHE publication on air quality and planning reiterate the need for an integrated approach to spatial planning to improve the air quality outcomes of planning policy;
- There are currently a number of European initiatives and resources to support integrated spatial planning for urban areas where air quality issues are the greatest. These are better considered at LDP level for urban Local Planning Authorities rather than incorporated within NPF4; and
- The use of Air Quality and Planning guidance could be formally recognised at LDP level. NPF4 is an overarching planning policy and reference to specific guidance documents is not suitable considering that these can be updated more regularly than NPF4. Reference to 'approved guidance/tools published by the Scottish Government' is considered more appropriate. This would support the Planning (Scotland) Act provisions to remove the need for SG and streamline the approach to best practice across Scotland.

4. Stage 3 – Outcomes

INTRODUCTION

- 4.1 The main aim of Stage 3 was to prepare a set of survey questions that could be used in a survey designed to further develop the conclusions of the research project based on practical experience of air quality and planning in Scotland. The survey would be aimed at professionals who work in the fields of air quality and planning and deal with the interactions between the two, e.g. Environmental Health Officers and Planners in Scotland.
- 4.2 The survey questions are based on the set of conclusions and best practice examples identified in Stages 1 and 2, with the aim of interrogating, strengthening and evidencing them further. The survey would aim to promote the recommendation of the CAFS Review: ‘P3: Local Authority Air Quality Performance Specifics and Knowledge Exchange’ by encouraging communication with Local Planning Authorities and enabling conversations around best practice.
- 4.3 The survey questions have been divided into sections and categorised to clearly present the content to the respondent, with the aim of reducing ‘survey fatigue’. In addition, questions surrounding the links and relationship between LAQM and LDP have been included with the aim of further understanding this relationship from those who work on both.

Survey Questions – Introductory

Question 1 Which option/description best describes your Local Planning Authority area? Please circle those which apply.

Urban / rural / coastal / mountainous / industrial / suburban

Other _____

Question 2 What are the main sources of air pollution of concern in your area? Please tick all which apply.

- Road transport
- Industry
- Ports and shipping
- Domestic
- Agriculture

Other _____

Question 3 Does your area have any Air Quality Management Areas declared?
Please circle one answer and specify.

Yes / No

If yes, how many? _____

Question 4 In terms of air quality, what are the greatest challenges your Local Planning Authority faces? (i.e. guidance, statutory powers, funding, resources etc.)

Survey Questions – Planning Policy and Air Quality

Question 5 Are there improvements to Scottish Planning Policy that you believe could be made in the context of air quality? This can be considered at national and local level.

Question 6 What should the focus of the upcoming NPF4 be in terms of air quality and development planning?

Question 7 Which policies areas should air quality be integrated with and should this be only reflected at NPF4 or be also included as part of LDP?

Question 8

Do you personally, or your Local Planning Authority use or recommend use of the following documents:

- EPUK-IAQM, Guidance on land-use planning and development control: Planning for air quality
- EPS-RTPI Scotland, Delivering Cleaner Air for Scotland: Development Planning & Development Management?

If yes, please indicate what are the drivers.

Question 9a

In your opinion, is the LAQM regime adequately represented within Scottish planning policy (**national**) and vice versa? Please circle one number on the scale of 1 to 10, 1 being least represented and 10 being well represented.

(least) 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 (most)

Question 9b

In your opinion, is the LAQM regime adequately represented within Scottish planning policy (**local**) and vice versa? Please circle one number on the scale of 1 to 10, 1 being least represented and 10 being well represented.

(least) 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 (most)

5. Conclusions & Recommendations

Stage 1

- 5.1 Stage 1 mainly focused on the representation of air quality within Scottish LDPs and how this related to SPP and LAQM. Air quality specific policies present within the LDPs were analysed in detail to identify common language and statements and judge how well they integrated with other policy areas. In addition, the air quality SG published in Scotland were reviewed in relation to the recommendations of the CAFS review and the Planning (Scotland) Act provisions.
- 5.2 Conclusions from Stage 1 included the following:
- Linkages between air quality and other related topic areas should be made within NPF4, where possible, to promote integration of topic areas at the national level and the local, LDP level; and
 - NPF4 has the opportunity to provide a sufficiently prescriptive air quality specific policy, removing the need for Local Planning Authorities to develop, within their respective LDP, detailed air quality specific policies unless necessary due to local factors.

Stage 2

- 5.3 Stage 2 investigated approaches to air quality within planning in the UK and Europe. Where applicable, comparisons were made with the approaches identified in Scotland as part of Stage 1.
- 5.4 Conclusions from Stage 2 include the following:
- The linkages between LDP and LAQM could be further realised and established by NPF4, for example; mentioning AQMAs could help provide consistently in their management within policy across Scotland;
 - NICE and PHE publication on air quality and planning reiterate the need for an integrated approach to spatial planning to improve the air quality outcomes of planning policy;
 - There is currently a number of European initiatives and resources to support integrated spatial planning for urban areas where air quality issues are the greatest. These are better considered at LDP level for urban Local Planning Authorities rather than incorporated within NPF4; and
 - The use of Air Quality and Planning guidance could be formally recognised at LDP level. NPF4 is an overarching planning policy and reference to specific guidance documents is not suitable considering that these can be updated more regularly than NPF4. Reference to 'approved guidance/tools published by the Scottish Government' is considered more appropriate. This

would support the Planning (Scotland) Act provisions to remove the need for SG and streamline the approach to best practice across Scotland.

Stage 3

- 5.5 Stage 3 aimed to further develop the conclusions of the research project by utilising the practical experience of air quality and planning in Scotland. A set of potential survey questions which could be included in a survey for Environmental Health Officers and Planning Officers in Scotland were produced. The survey would be aimed at professionals who work in the fields of air quality and planning and deal with the interactions between the two, e.g. Environmental Health Officers and Planners in Scotland.
- 5.6 The survey questions are based on the set of conclusions and best practice examples identified in Stages 1 and 2, with the aim of interrogating, strengthening and evidencing them further. The overarching aim of the survey would be to gain an understanding from professionals about the interaction of air quality and planning in Scotland and inform the focus of NPF4 in terms of air quality and development planning.

Final Conclusions

- 5.7 The research project investigated ways to improve the air quality outcomes of the anticipated NPF4. It reviewed current approaches within planning in Scotland in regards to air quality, identified best practice examples from the UK as well as European examples. The review identified that the most effective policy measures to improve the air quality outcomes of the NPF4 involve a prescriptive air quality specific policy detailing the approach to assessments as well as integrated policy measures with other policy areas such as transport and placemaking.

6. References

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The Town and Country Planning (Development Management Procedure) (England) Order 2015 No. 595 Part 1 Article 2.

Annex A Local Development Plans Reviewed and Utilised

Local Planning Authority	Plan Used
Aberdeen City Council	Adopted Plan, April 2017
Aberdeenshire Council	Adopted Plan, January 2017
Angus Council	Adopted Plan, September 2016
Argyll and Bute Council ^(a)	Proposed Plan, November 2019
Clackmannanshire Council	Adopted Plan, August 2015
Dumfries and Galloway Council	Proposed Plan, January 2018
Dundee City Council	Adopted Plan, February 2019
East Ayrshire Council	Adopted Plan, February 2017
East Dunbartonshire Council	Adopted Plan, February 2017
East Lothian Council	Adopted Plan, September 2018
East Renfrewshire Council ^(a)	Proposed Plan, October 2019
Edinburgh City Council	Adopted Plan, November 2016
Falkirk Council	Proposed Plan, September 2018
Fife Council	Adopted Plan, September 2017
Glasgow City Council	Adopted Plan, March 2017
Highland Council ^(b)	Adopted Plan, April 2012
Inverclyde Council	Proposed Plan, April 2018
Midlothian Council	Adopted Plan, November 2017
Moray Council ^(a)	Proposed Plan, 2019
North Ayrshire Council	Proposed Plan, April 2018
North Lanarkshire Council	Modified Proposed Plan, 2018
Orkney Islands Council	Adopted Plan, April 2017
Perth and Kinross Council ^(a)	Adopted Plan, November 2019
Renfrewshire Council ^(a)	Proposed Plan, 2019
Scottish Borders Council	Adopted Plan, May 2016
Shetland Islands Council	Adopted Plan, September 2014
South Ayrshire Council ^(a)	Proposed Plan, September 2019
South Lanarkshire Council	Proposed Plan, July 2018
Stirling Council	Adopted Plan, October 2018
West Dunbartonshire Council	Proposed Plan, September 2018
Western Isles (Comhairle nan Eilean Siar) Council	Adopted Plan, November 2018
West Lothian Council	Adopted Plan, September 2018
Cairngorm National Park Authority ^(a)	Proposed Plan, 2020
Loch Lomond National Park Authority	Adopted Plan, October 2017

Notes:

^(a) Since the 'Adoption of Scottish Planning Policy in Local Development Plans' research project was completed, new plans have been adopted or proposed plans released. These have been reviewed as part of this work.

^(a) Highland Council LDP was not reviewed in the original research project due to a postponement of LDP development due to the Planning Act. The 2012 LDP was reviewed in this project.

Annex B Air Quality Specific Policies

Ref. Policy

1 Aberdeen City Council

Development proposals which may have a detrimental impact on air quality will not be permitted unless measures to mitigate the impact of air pollutants are proposed and agreed with the Planning Authority. Planning applications for such proposals should be accompanied by an assessment of the likely impact of development on air quality and any mitigation measures proposed.

The relevant Supplementary Guidance Air Quality, detailed below sets out the likely circumstances in which applicants must submit an assessment of the potential impact of particular types of development on existing and future air quality, particularly in and around Air Quality Management Areas. It also provides guidance on the process of air quality assessment and how mitigation measures will be assessed and implemented.

2 Dundee City Council

There is a general presumption against development proposals that could significantly increase air pollution or introduce people into areas of elevated pollution concentrations unless mitigation measures are adopted to reduce the impact to levels acceptable to the Council.

3 East Ayrshire Council

Air:

All developers will be required to ensure that their proposals have minimal adverse impact on air quality. Air quality assessments will be required for any proposed development which the Council considers may significantly impact upon air quality, either on its own or cumulatively. Development that will have a significant adverse impact on air quality will not be supported.

4 East Lothian Council

Impacts on air quality will be taken into account in assessing development proposals, particularly within and close to any Air Quality Management Area (AQMA). An Air Quality Assessment may be required for developments that are within an AQMA or where the proposed development may cause or exacerbate a breach of National Air Quality Standards.

Development proposals that would result in either a breach of National Air Quality Standards or a significant increase in concentrations of air pollution within an existing AQMA will not be supported unless appropriate mitigation measures can be put in place. Financial contributions to strategic air quality mitigation measures will be necessary in these circumstances.

5 East Renfrewshire Council

Proposals will be required to ensure that local air quality is protected. An Air Quality Assessment may be required where the proposed development may cause or exacerbate a breach of National Air Quality Standards. Development proposals that would result in a significant increase in concentrations of air pollution will not be supported unless appropriate mitigation measures can be put in place.

6 Edinburgh City Council

Planning permission will only be granted for development where:

a) there will be no significant adverse effects for health, the environment and

Ref. Policy

amenity and either

b) there will be no significant adverse effects on: air, and soil quality; the quality of the water environment; or on ground stability

c) appropriate mitigation to minimise any adverse effects can be provided.

7 Falkirk Council

Development should not exacerbate existing air quality issues or introduce new sources of pollution which impact on local air quality without appropriate mitigation. Impacts on air quality will be taken into account in assessing development proposals, particularly within Air Quality Management Areas (AQMA). An Air Quality Assessment may be required for developments that are within an AQMA or where the proposed development may cause or significantly contribute towards a breach of National Air Quality Standards. Development proposals that result in either a breach of National Air Quality Standards or a significant increase in concentrations within an existing AQMA will not be permitted unless there are overriding issues of national or local importance.

8 Highland Council

Development proposals which, individually or cumulatively, may adversely affect the air quality in an area to a level which could cause harm to human health and wellbeing or the natural environment must be accompanied by appropriate provisions, such as an Air Quality Assessment, (deemed satisfactory to the Local Authority and SEPA as appropriate) which demonstrate how such impacts will be mitigated.

Some existing land uses may have a localised detrimental effect on air quality. Any proposals to locate development in the vicinity of such uses and therefore introduce receptors to these areas (e.g. housing adjacent to busy roads) must consider whether this would result in conflict with the existing land use. Proposals which would result in an unacceptable conflict with the existing land use to air quality impacts will not be approved.

9 Inverclyde Council

Development that could have a detrimental impact on air quality, or would introduce a sensitive receptor to an area with poor air quality, will be required to be accompanied by an Air Quality Assessment, which identifies the likely impacts and sets out how these will be mitigated to an acceptable level.

10 Midlothian Council

The Council may require further assessment (either as part of Environmental Impact Assessment or separately) to identify air quality impacts where the Council's Environmental Health service and the Scottish Environment Protection Agency (SEPA) considers it requisite. It will refuse planning permission, or seek effective mitigation, where development proposals cause unacceptable air quality or dust impacts, or would result in sensitive uses, which give rise to air pollution concerns, being located within or close to uses with potential to generate such pollution.

11 Perth and Kinross Council

The Council has a responsibility to improve air quality. The LDP does this by seeking to prevent the creation of new pollution hotspots, and to prevent introduction of new human exposure where there could be existing poor air quality.

Ref. Policy

The LDP extends support to low emission technologies for both transport and energy production.

As well as aspiring to improve air quality, the policy also aspires to eliminate the gradual worsening in air quality that is caused by the cumulative impact of many small developments. Within or adjacent to designated Air Quality Management Areas, where pollutant concentration are in excess of the national air quality objectives and may pose a risk to human health, development proposals that would adversely affect air quality may not be permitted. There is a presumption against locating development catering for sensitive receptors in areas where they may be exposed to elevated pollution levels.

Any proposed development that could have a detrimental effect on air quality, through exacerbation of existing air quality issues or introduction of new sources of pollution (including dust and/or odour), must provide appropriate mitigation measures. The LDP expects that some type of mitigation of air quality impacts will be required for all but the smallest developments. Best practice design measures should therefore be considered early in the design and placemaking process.

Proposals and mitigation measures must not conflict with the actions proposed in Air Quality Action Plans.

An air quality impact assessment will usually be required where the Council considers that there may be a risk of an air quality impact upon human health.

The main ways in which development may potentially impact upon air quality are as follows:

- (a) introducing new human exposure at a location with poor air quality (e.g. within an existing Air Quality Management Area or close to a busy road or junction);
- (b) the development may itself lead to a deterioration in local air quality (e.g. from increased vehicle emissions or flue emissions from heating or energy production plant); and
- (c) if the demolition/construction phase will have an impact upon the local environment (e.g. through fugitive dust and/or exhaust emissions from machinery and vehicles).

The cumulative impact of other consented development and of these three criteria will be taken into account. In line with best practice, screening criteria will be used to identify where impacts are insignificant. Supplementary guidance will set out how air quality will be considered when determining planning applications. The Council keeps an evidence base of air quality and has developed a high-resolution dispersion model for the LDP area.

12 Renfrewshire Council

Development proposals individually or cumulatively should not have a significant adverse effect on air quality particularly within or adjacent to Renfrewshire's Air Quality Management Areas as shown on the Proposals Maps. Where required, planning applications should be accompanied by an air quality assessment which demonstrates the likely impact on air quality and how such impacts will be mitigated, including measures that support active travel and public transport as an alternative to private vehicular traffic.

13 Scottish Borders Council

Development proposals that, individually or cumulatively, could adversely affect the quality of air in a locality to a level that could potentially harm human health

Ref. Policy

and wellbeing or the integrity of the natural environment, must be accompanied by provisions that the Council is satisfied will minimise such impacts to an acceptable degree. Where it is considered appropriate the Council may request that an Air Quality Assessment is undertaken to assist determination of an application.

14 South Ayrshire Council

We will not allow development which would expose significant numbers of people to unacceptable levels of air, noise or light pollution.

15 South Lanarkshire Council

Development proposals which have the potential to have a detrimental impact on air quality or introduce new relevant human exposure into an area where there is existing poor air quality will not be acceptable unless measures to mitigate the impact of air pollutants are proposed and can be agreed with the planning authority. The Council will, in assessing an application for such developments, require the submission of an assessment of the likely impact of the development on air quality and any proposed mitigation measures. This assessment should include:

- existing air quality in the study area (base year),
- prediction of the future air quality without the proposed development in place (future base year),
- future air quality with the development in place,
- measures required to mitigate the potential impact on air quality,
- future year air quality predictions with and without proposed development in place should include any other committed developments,
- a construction phase dust impact assessment may also be required based on the size and location of the development.

In addition, developers must take cognisance of other relevant planning guidance, including the Council's Air Quality Action Plan.

16 West Dunbartonshire Council

Air:

Development that would have a significant adverse impact on air quality, exacerbate existing air quality problems, or introduce sensitive receptors close to areas with air quality problems, will not be permitted unless adequate mitigation measures are included with the proposals.

17 West Lothian Council

Where appropriate, developers will be required to provide additional information on the impact of their proposed development on air quality.

Where a development is likely to affect air quality, developers should identify and provide details of potential mitigation measures and, where appropriate, should make provision for developer contributions or planning obligations to mitigate the development's individual or cumulative impacts upon air quality.

Development promoting behaviour change programmes in Linlithgow and Broxburn/Uphall to facilitate modal shift of shorter journeys to walking and cycling is supported in principle.

Development will not be supported where it is not possible to mitigate the adverse effects of that development on air quality effectively or where development proposals cause unacceptable air quality or dust impacts, or would result in sensitive uses, which give rise to air pollution concerns, being located

Ref. Policy

within or close to uses with potential to generate such pollution.

Where appropriate, planning conditions will be imposed which require air quality monitoring apparatus to be installed.

Annex C NICE Quality Standard Q181

QS 181 'Air pollution: outdoor air quality and health' contains quality statement 1 on strategic plans and quality statement 2 on planning applications and was therefore considered of relevance to this project. Quality statements 1 and 2 are considered in detail in the following sections.

Quality statement 1: Strategic plans, is as follows:

“Local authorities identify in the Local Plan, local transport plan and other key strategies how they will address air pollution, including enabling zero- and low-emission travel and developing buildings and spaces to reduce exposure to air pollution.”

The rationale behind quality statement 1 is stated as follows:

“Local authorities should be strategic leaders of local initiatives to address air pollution, working in a coordinated way with key partners to ensure a consistent and planned approach. Identifying their approach to air pollution in the Local Plan, local transport plan and other key strategies will provide a clear framework for joined-up local action. The key components of their approach should include enabling zero- and low-emission travel (including active travel such as cycling or walking) and developing buildings and spaces to reduce exposure to air pollution.”

Quality statement 2: Planning applications, is as follows:

“Local planning authorities assess proposals to minimise and mitigate road-traffic-related air pollution in planning applications for major developments.”

The rationale behind quality statement 2 is stated as follows:

“The built environment can affect the emission of road-traffic-related air pollutants by influencing how and how much people travel, for example, by ensuring good connections to walking and cycling networks. Buildings can affect the way air pollutants are dispersed through street design and the resulting impact on air flow. Addressing air pollution at the planning stage for major developments may reduce the need for more expensive remedial action at a later stage. It can also help to maintain people's health and wellbeing during and after construction. Assessing proposals to minimise and mitigate road-traffic-related air pollution will help to ensure they are robust and evidence based.”



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