

Environmental Policy Division / Environment and Heritage Service

Local Air Quality Management Policy Guidance

LAQM. PGNI(03)

The Environment (Northern Ireland) Order 2002

Department of the Environment

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Chapter 1

Introduction: What is this Guidance for?

- 1.01 This guidance is designed to help relevant authorities, which may be a Northern Ireland Department, a district council and or any other public body with their local air quality management duties under Part III of the Environment (NI) Order 2002. The relevant authorities mentioned in the Order are prescribed in the Air Quality Regulations (NI) 2003. The guidance sets out:
- the statutory background and the legislative framework within which relevant authorities have to work;
 - the new principles behind reviews and assessments of air quality up to 2010 and the recommended steps that relevant authorities should take;
 - the timetable for reviews and assessments up to 2010;
 - how district councils should handle the designation of air quality management areas;
 - how relevant authorities should handle the drawing up and implementation of action plans;
 - recommendations and suggestions on taking forward the development of local and regional air quality strategies;
 - suggestions of how relevant authorities should consult and liaise with others;
 - local transport measures which Roads Service might wish to consider;
 - the general principles behind air quality and land-use planning; and
 - how enforcing authorities should use powers of entry under Article 19 of the Order (Appendix A)
- 1.02 This guidance document represents major aspects of policy in regards to ambient air quality management. It includes policy guidelines on air quality reviews and assessments, air quality action planning, transport planning and land use planning. It replaces the second set of policy guidance documents, published in March 2000¹.
- 1.03 **The Department recommends that this policy guidance should be made available to relevant departments within all relevant authorities.** Those chapters covering “air quality and transport” and “air quality and land use planning” are relevant for those working in respective Government Departments and their agencies. Such bodies may include the Department for Regional Development, (Roads Service, Regional Planning and Transport Division); Department of the Environment, (Planning Service); and the Northern Ireland Housing Executive. This guidance should therefore be taken into account by those departments when carrying out their relevant duties. The guidance may also be of value to businesses, the public and other stakeholders.

¹ LAQM.G1(00) Framework for review and assessment of air quality, LAQM.G2(00) Developing local air quality action plans and strategies – the main considerations, LAQM.G3(00) Air quality and transport and LAQM.G4(00) Air quality and land use planning

- 1.04 Neither this guidance, nor the technical guidance LAQM.TG (03), is meant to restrict the non-statutory work of relevant authorities. For example, the Department would encourage district councils to develop local air quality strategies and strongly recommend that **all district councils and other relevant authorities**, particularly those that do not need to designate an AQMA but have areas close to the exceedence levels, **should consider drawing up a local air quality strategy**. For further guidance on local air quality strategies, see chapter 5.

Statutory Background

- 1.05 This guidance is issued by the Department of the Environment in Northern Ireland under Article 16 of the Environment (Northern Ireland) Order 2002 ("the Order"). It replaces the guidance previously issued as LAQM.G1, G2, G3 and G4(00). Under section 16 of the Order, district councils and other relevant authorities are required to have regard to this guidance when carrying out any of their duties under, or by virtue of, Part III of the Order. An Equality Impact Assessment 'Screening Analysis' was carried out for the air quality legislation in Part III of the Environment (NI) Order 2002. That screening analysis would also apply to this policy guidance document.
- 1.06 This guidance sets out the legislative framework for the system of local air quality management (LAQM). This system is an integral part of delivering the air quality objectives set out in the Air Quality Strategy for England, Scotland, Wales, and Northern Ireland, ("the Air Quality Strategy") published in January 2000, the Addendum to the Strategy and in the Air Quality Regulations (NI) 2003. Relevant authorities should consider this guidance in conjunction with the technical guidance in LAQM.TG(03).
- 1.07 The Environment (Northern Ireland) Order 2002 provides the framework for local air quality management across Northern Ireland. The provisions in Part III of the Order are largely enabling and give relevant authorities the flexibility to take forward local policies to suit local needs. Circumstances will determine the content of local air quality strategies, the designation of AQMAs and the content of AQAPs.
- 1.08 The Department of the Environment has reserve powers under Article 14 of the Order to direct district councils to take action where they are failing to make sufficient progress. The Department may issue directions to district councils requiring them to take any of the following steps:-
- Carry out an air quality review and assessment under Article 11 of the Order;
 - Re-do an air quality review and assessment in whole or in part;
 - Make an order designating an AQMA;
 - Revoke or modify an AQMA order;
 - Prepare an action plan;
 - Modify any action plan;
 - Implement any actions in an action plan.

1.09 The Department see these powers as a last resort, only to be used where district councils have clearly failed to carry out their local air quality management duties. These powers would only be used when dialogue has failed in an effort to ensure the duties have been undertaken.

Financial Resources

1.10 Article 18 of the Order allows the Department to make grants or loans to any body or person for the purposes of or in connection with:-

- Carrying out an air quality review;
- Carrying out an air quality assessment;
- Preparing and implementing an action plan;
- The assessment or management of the quality of air.

1.11 The Department is currently providing funding under a Local Air Quality Grant Scheme to district councils of approximately £1m per year until 2003/04. Following completion of the grant scheme in 2003/04 the Department proposes to introduce a financial scheme under Article 18 of the Order, subject to future budget outcomes.

Air Quality and Health

1.12 The main reasons for tackling poor air quality are the link between air quality and the quality of life and the need to minimise the risk of poor air quality to human health. We now have a better understanding of the short-term and the long-term health effects of air pollution largely due to the work undertaken by the Committee on the Medical Effects of Air Pollutants (COMEAP²).

1.13 Short-term increases in particles, sulphur dioxide and nitrogen dioxide are associated with increased deaths brought forward and increased respiratory or cardiovascular hospital admissions in the elderly and those who are already ill. These pollutants can also worsen symptoms in those with asthma. COMEAP has also recently reported that long-term exposure to particles is associated with reduced life-expectancy mainly as a result of earlier deaths from heart disease. Carbon monoxide increases symptoms in those with heart disease, and lead affects brain development in children. Benzene and 1,3-butadiene both cause cancer.

Links to Climate Change

1.14 The Government's and the Devolved Administrations' strategic approach to tackling climate change is set out in the UK Climate Change Programme, published in November 2000. It focuses on practical action to reduce emissions up to 2010 and recognises the contribution that district councils and other public bodies can make by taking forward the local actions needed to cut emissions.

² COMEAP research can be found via the Department of Health web site at www.doh.gov.uk/comeap/index

- 1.15 Policies to improve air quality cannot be considered in isolation from those designed to reduce greenhouse gas emissions, as some policies to improve local air quality can often have the added benefit of producing additional carbon savings, and vice versa. For example, policies designed to reduce the impact that transport has on air quality by tackling congestion and encouraging a shift to public transport, walking and cycling should also reduce carbon dioxide emissions. Measures to improve energy efficiency and cut energy demand should also reduce the air pollutants that are produced during electricity generation.
- 1.16 The Department therefore expects district councils and other relevant authorities to address the impacts on greenhouse gas emissions of the measures they propose to implement in their air quality action plans. It is recognised though that this is likely to be qualitatively in many instances. District councils and other relevant authorities might also wish to consider including policies to reduce greenhouse gas emissions in their local air quality strategies.
- 1.17 The Department also expects district councils and other relevant authorities to take an integrated approach to dealing with environmental issues, such as climate change and air quality. For example, it may be possible to use the data gathered as a part of Air Quality Reviews to provide information on greenhouse gas emissions, particularly carbon dioxide. Emission inventories could be particularly useful for this.
- 1.18 Such information will also be useful for assessing the impact of other policy areas, such as land use planning, transport planning and community strategies. The Department would therefore encourage relevant authorities to make use of information gathered as part of local air quality management within these other policy areas.
- 1.19 District councils and other relevant authorities can find out more about what their authority can do to respond to the challenge of climate change in two publications: “Community leadership and climate change: guidance for local authorities” and “Community leadership and climate change: guidance for chief executives”. These are available from Defra Publications – telephone: **08459 556000** or fax: **0208 957 5012** and are also available on the Defra website at **<http://www.defra.gov.uk/environment/climatechange/laguide/index.htm>**

Links to Environmental Noise

- 1.20 The growing pressure to consider the impact of noise on local populations makes it sensible to consider possible synergies and conflicts with Air Quality Plans. A study on Potential Synergies and Conflicts Between Noise and Air Quality Action Plans(**<http://www.defra.gov.uk/environment/noise/synergy/index.htm>**) may help with such considerations. The future noise mapping required under Directive 2002/49/EC will provide further information and tools to consider the impact of air quality action plans on the noise environment.

Air Quality Objectives

- 1.21 The air quality objectives set out in the Air Quality Regulations (NI) 2003 will provide the statutory basis for the system of LAQM.

Table 1: Proposed objectives included in the Air Quality Regulations (NI) 2003 for the purpose of Local Air Quality Management

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 $\mu\text{g}/\text{m}^3$	running annual mean	31.12.2003
	3.25 $\mu\text{g}/\text{m}^3$	running annual mean	31.12.2010
1,3 Butadiene	2.25 $\mu\text{g}/\text{m}^3$	running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	maximum daily running 8-hour mean	31.12.2003
Lead	0.5 $\mu\text{g}/\text{m}^3$	annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	annual mean	31.12.2008
Nitrogen dioxide ¹	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1 hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	annual mean	31.12.2005
Particles (PM ₁₀) (gravimetric) ²	50 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 35 times a year	24 hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	annual mean	31.12.2004
Sulphur dioxide	350 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 24 times a year	1 hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 3 times a year	24 hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 35 times a year	15 minute mean	31.12.2005

1. The objectives for nitrogen dioxide are provisional

2. Measured using the European gravimetric transfer standard or equivalent.

Particles Objective

- 1.22 The new national particles objectives (PM₁₀) for 2010, included in the addendum to the Air Quality Strategy published in February 2003, will not, for the time being, be included in Regulations for the purposes of LAQM. This means that local councils are **only required to review and assess air quality against the 2004 objectives**. The Department however, intend that the new particles objectives should be included in Regulations **as soon as practicable after the review of the EU's first Air Quality Daughter Directive** (due to be completed during 2004 and taking into account the outcome of the EU Review). The new objectives are:

Region	Pollutant	Concentration	Measured as	Date to be achieved by
London	Particles (PM10) (gravimetric)	50µg/m ³ not to be exceeded more than 10 times a year	24 hour mean	31 December 2010
London	Particles (PM10) (gravimetric)	23 µg/m ³	annual mean	31 December 2010
London	Particles (PM10) (gravimetric)	20 µg/m ³ *	annual mean	2015
Rest of England	Particles (PM10) (gravimetric)	50µg/m ³ not to be exceeded more than 7 times a year	24 hour mean	31 December 2010
Rest of England	Particles (PM10) (gravimetric)	20 µg/m ³	annual mean	31 December 2010
Wales	Particles (PM10) (gravimetric)	50µg/m ³ not to be exceeded more than 7 times a year	24 hour mean	31 December 2010
Wales	Particles (PM10) (gravimetric)	20 µg/m ³	annual mean	31 December 2010
Northern Ireland	Particles (PM10) (gravimetric)	50µg/m ³ not to be exceeded more than 7 times a year	24 hour mean	31 December 2010
Northern Ireland	Particles (PM10) (gravimetric)	20 µg/m ³	annual mean	31 December 2010

- This is an aspirational target to work towards after 2010 with the aim of achieving it by 2015 where cost-effective and proportionate local action can be identified.

- 1.23 Although district councils are not yet statutorily required to assess levels of particles for 2010, there is a strong case for starting this work early. The reasons for this include:
- the fact that councils are likely to need to carry out this work for the updating and assessment exercise in 2006 and subsequent round of reviews and assessments; and
 - the fact that district councils will have a key role to play in helping the Department deliver the EU limit values for particles by 2010. The sooner district councils can identify any potential local exceedences, the better district councils and other relevant authorities are placed to be able to tackle them.
- 1.24 The air quality *standards* set out in the Strategy are based purely on medical evidence of the effects of particular pollutants on health. They represent minimum or no significant risk levels. They are not based on a costs and benefits assessment or on technical feasibility, but on the advice of the Expert Panel on Air Quality Standards (EPAQS). The EU limit values are derived from World Health Organisation (WHO) guideline values (these guidelines are equivalent in concept to the UK standards).
- 1.25 However, the air quality *objectives* in the Strategy do take account of costs and benefits, and the feasibility of moving towards those standards. The objectives represent the Department's medium term policy intentions and are based on the recommended standards. Air quality objectives therefore provide a framework for determining the extent to which policies should aim to improve air quality. They also provide a measure for each of the pollutants of concern against which future progress can be judged.
- 1.26 The most significant judgement district councils have to make is **whether the air quality objectives are likely to be achieved in their area by the relevant deadline**. Where objectives are likely to be met, a district council will not be required to designate an AQMA. Where, in the district council's judgement, they are **not** likely to be achieved in any relevant locations (see paragraphs 1.19 – 1.21 on exposure in LAQM.TG(03)), the council must designate such locations as AQMAs.

Relationship between the UK LAQM System and the EU Air Quality Framework and Daughter Directives

- 1.27 The European Union's Air Quality Framework and Daughter Directives prescribe limit values for certain pollutants which all member states must meet. The local air quality management system has a key role to play in helping the UK to meet its objectives under these Directives.

1.28 The limit values are as follows:

Pollutant	Limit value (Target Values in 3 rd DD below)	Measured as	Date to be achieved by
First air quality daughter directive			
Nitrogen dioxide	40µg/m ³	annual mean	2010
Nitrogen dioxide	200 µg/m ³ not to be exceeded more than 18 times per year	1 hour mean	2010
Particles (PM10)	40 µg/m ³	annual mean	2005
Particles (PM10)	50 µg/m ³ not to be exceeded more than 35 times per year	24 hour mean	2005
Particles (PM10)*	20 µg/m ³	annual mean	2010
Particles (PM10)*	50 µg/m ³ not to be exceeded more than 7 times per year	24 hour mean	2010
Lead	0.5 µg/m ³	annual mean	2005
Sulphur dioxide	350 µg/m ³ not to be exceeded more than 24 times per year	1 hour mean	2005
Sulphur dioxide	125 µg/m ³ not to be exceeded more than 3 times per year	24 hour mean	2005
Second air quality daughter directive			
Carbon monoxide	10mg/m ³	8 hour mean	2010
Benzene	5 µg/m ³	annual mean	2010
Third air quality daughter directive			
Ozone#	120 µg/m ³ not to be exceeded more than 25 times per year averaged over 3 years	8 hour mean	2010
Ozone#	120 µg/m ³	8 hour mean	(Long-term objective)
Fourth air quality daughter directive			
Currently under negotiation.			

* the "stage 2" particles limit values for 2010 are indicative limit values, to be reviewed in 2004.

in respect of ozone, the values are target values (to be achieved where practicable and where the costs of doing so do not outweigh the benefits) rather than binding limit values.

- 1.29 The dates by which EU limit values are due to be met are usually expressed as 1 January in a particular year. The indicative stage 2 limit values for particles in the first Air Quality Daughter Directive, for instance, are due to be met by 1 January 2010. National Air Quality Strategy objectives on the other hand have a compliance date of 31 December for the year concerned. The date proposed for achieving the new annual mean provisional objectives for particles is 31 December 2010. There is, in practice, no difference between these dates. The EU limit values have to be achieved for the year in which the date is set. So compliance with the indicative stage 2 limit values for particles set in the first Air Quality Daughter Directive would be assessed for the year beginning 1 January 2010. The UK would have to demonstrate compliance after the end of 2010. Compliance with provisional national objectives set for 31 December 2010 would also be assessed after the end of 2010.
- 1.30 The Department will closely monitor progress towards these limit values, and will keep under review the need for further action. Under the first Daughter Directive the UK is required to submit to the European Commission:
- by the end of 2002, a list of those parts of the country which currently exceed the limit values plus a “margin of tolerance³”
 - by December 2003, an action plan for any area identified above, setting out what national and other measures are already in place, or will be put in place, to achieve the limit values set out in the first Air Quality Daughter Directive.
- 1.31 There are similar requirements under the other Daughter Directives, albeit with longer timescales. As part of its national action plan under the first Air Quality Daughter Directive, the UK intends to notify the Commission of all of the local air quality action plans that are in place by December 2003. In due course, where any exceedences of the 2010 limit values are forecast, the Department will need to work closely with the relevant authorities to identify any further measures that might be implemented.

Role of District Councils

Reviews and Assessments of Air Quality

- 1.32 For the purposes of this guidance, a *review* of air quality means a consideration of the levels of pollutants in the air for which objectives are relevant in Regulations, and estimations of likely future levels. An *assessment* of air quality is the consideration of whether estimated levels for the relevant future period are likely to exceed the levels set in the objectives.
- 1.33 A review and assessment of air quality is the first step in the LAQM process. Article 11 of the Order requires each district council to review air quality “from time to time”. The Air Quality Regulations (NI) 2003 prescribe air quality objectives and the dates

³ “margin of tolerance” is the pollutant level set at a fixed percentage above the limit value. The margins decrease by a constant percentage year by year until the date for attainment of the limit value. From that date onwards, no margins of tolerance are permitted. This provision gives a guide for the rate at which pollutant levels may need to fall in order to reach the limit value successfully.

for meeting them. For each objective, district councils have to consider present and likely future air quality, and assess whether the objectives are likely to be achieved in time. District councils should note that they also have a duty to continue to work towards meeting the air quality objectives beyond the deadlines set out in the Air Quality Regulations (NI) 2003. An objective, for example, which is due to be met by 2005 must also be met in every subsequent year.

- 1.34 District councils are already in the process of completing the first round of reviews and assessments to determine the need for designation of any AQMAs in their area (guidance on handling the designation of AQMAs is in chapter 2). This first round should act as a benchmark against which relevant authorities can measure their future progress in making improvements to their local air quality.
- 1.35 Over 100 local authorities across the UK have to date designated AQMAs in their areas. The vast majority of these AQMAs are in respect of emissions from road transport with only a small percentage being designated in respect of industrial sources alone. Other AQMAs have been designated as a result of other transport-related emissions such as in the vicinity of airports or due to emissions from shipping. The vast majority of AQMAs have been designated in urban metropolitan boroughs but several are located in smaller market towns due to the street canyon effect, where the roads are narrow, traffic congestion is a problem and air pollution is unable to disperse effectively.

Role of Regional Groupings

- 1.36 District councils should note that Section 104 of the Local Government (NI) Act 1972 provides the power to a council to make arrangements with any other council or any public body or Government Department for the exercise of any functions. Schedule 2, Paragraph 1 of the Environment (NI) Order 2002 requires a district council when carrying out its functions to consult neighbouring district councils. In addition, under Schedule 2, paragraph 3 of the Order the Department has the power to give directions to any two or more district councils requiring them to jointly carry out functions under Part III of the Order or to revoke or modify their joint arrangements.
- 1.37 During the first round of reviews and assessments, many district councils worked in collaboration on aspects of their air quality review and assessment work, in particular, with respect to air quality modelling work and the development of emissions inventories.
- 1.38 **The Department would encourage the establishment of local or regional air quality steering groups to help deliver aspects of the LAQM process.** Air quality steering groups will play a vital role by allowing stakeholders to work closely together, and share resources and best practice. The Department would use the steering group to provide feedback on national policy developments and to allow stakeholders to share their experiences and seek advice from the Department on carrying out their LAQM duties.

Approach for Second Round of Reviews and Assessments

- 1.39 In September 2001, Defra and the Devolved Administrations commissioned a detailed evaluation of the first round of air quality reviews and assessments by local authorities. The evaluation was undertaken by Air Quality Consultants Ltd. and the University of the West of England, Bristol. The main aim was to look at aspects of the LAQM process that had worked well and aspects that could usefully be improved in order to help inform the next and subsequent rounds of reviews and assessments. The report is available on the Defra web site at <http://www.defra.gov.uk/environment/airquality/laqm/eval/index.htm> and the Review and Assessment Helpdesk web site (see Table 2 below).
- 1.40 The evaluation report published in March 2002 set out the main thoughts and suggestions on the first round of air quality reviews and assessments, and led to 32 recommendations for future rounds of reviews and assessments.
- 1.41 One of the key recommendations suggested is that the next round should be carried out in two steps instead of the previous three staged approach;
- an **Updating and Screening Assessment** for identifying those aspects that have changed since the first round of reviews and assessments, including by way of lessons learnt from the first round, that may require further assessment. The Updating and Screening Assessment should include an explanation of the conclusion reached as to whether the local authority should proceed to a detailed assessment or not (**this step is not intended to be onerous**); and
 - a **Detailed Assessment** of those pollutants and specific locations that have been identified as requiring further work – i.e. where members of the public are likely to be exposed over the averaging period of the air quality objective (see box 1.2 in LAQM.TG(03) for further details on exposure).
- 1.42 Defra and the Department have accepted that the second round and subsequent rounds of reviews and assessments up to 2010 should be carried out in two steps as indicated above. **District councils are advised to follow the guidance on the recommended phased approach to the review and assessment process set out in LAQM.TG(03) – see paragraphs 1.11-1.15).**
- 1.43 The Detailed Assessment should conclude by identifying:
- whether an existing AQMA needs to be amended or revoked (see paragraphs 2.20-2.24 for further details);
 - whether any further AQMAs need to be designated within the area (away from any existing AQMAs);
 - whether any AQMAs need to be designated for the first time due to changed circumstances; or
 - that there is no need to designate any AQMAs

Completion of First Round Review and Assessments

- 1.44 At present district councils are engaged in a phased approach involving three stages. The first stage, which has already been completed by all district councils on a voluntary basis, equates most closely to the 'Updating and Screening Assessment'. The second and third stage equates to the 'Detailed Assessment'. A timetable for completion of the first round of review and assessment is listed in Table 3.
- 1.45 Revised Technical Guidance (LAQM. TG(03)) has been issued based on the new two step approach. The Department recommends that district councils should where feasible use technical guidance LAQM. TG(03) to complete their first round of review and assessments. Using this revised guidance should cause no difficulty or require work already completed to be revised.
- 1.46 Where district councils have commenced second / third stage reviews using the old technical guidance LAQM. TG(00) they may continue using the old guidance. However, district councils are advised to cross-reference their methodology and approach with the new guidance LAQM TG(03) wherever possible. Where decisions on whether to declare an air quality management area or not are marginal, district councils are advised where practicable to base any final decision on the new guidance, or to seek the advice of the helpdesk.
- 1.47 If the Department does not accept the district council's conclusions to proceed or not to proceed from second stage to third stage, then the council will be invited to provide written comments justifying their decision within a specified deadline set out in the appraisal letter. This will be a short deadline in keeping with the need to complete the first round as quickly as possible.
- 1.48 Those authorities that are required to proceed beyond a first third stage review and assessment are expected to submit their draft (but complete) report to the Department (as well as to other statutory consultees) for appraisal by end of December 2003 (see Table 3). District councils will generally wish to consult the public at this stage. Where the Department's appraisal has indicated that the findings are not accepted (i.e. that the proposed AQMA is/are unjustified or that no declaration is proposed when there appears to be a case for one), the council must take the comments into account and carry out the following:
- send further comments in writing to the Department responding to the points made in the appraisal; and
 - where necessary, revise relevant parts of the Detailed Assessment and resubmit the document to the Department within 3 months of receipt of the appraisal report.

Information needed to Complete a Second Stage Review and Assessment

1.49 The report of a second stage review and assessment should begin by listing the pollutants that need further examination, based on the first stage. For each pollutant of concern, the district council should then give the following:

(i) Details of any automatic or non-automatic **monitoring**, including:

- the pollutant species measured;
- the pollutant concentrations and averaging times;
- the monitoring period;
- an estimate of the accuracy and precision of the measurements, including any evidence of positive or negative bias;
- the monitoring technique used (including reference to British or European standards where appropriate);
- whether the sampling system was gas or particulate;
- site details and description, including Ordnance Survey map co-ordinates;
- the basis for site selection;
- quality control and assurance procedures, including (where appropriate) site maintenance, and calibration, service and maintenance of analysers;
- calibration gas trace ability or certification, where appropriate;
- a description of data processing techniques, including validation, screening or review of data;
- information on data return; and
- reference to the technical guidance, or other published material.

(ii) Details of any **modelling**, including:

- model outputs, including where appropriate, predicted pollutant concentrations for current and future air quality;
- details of, or reference to, model input data, including where appropriate, assumed meteorology, pollutant emissions, traffic flows and speeds, road dimensions, street geometry and industrial operating conditions;
- the name and description of models used;
- information on estimated uncertainty in model outputs;
- details of or reference to validation of models; and
- reference to the technical guidance, or other published material.

(lii) Details of the **review and assessment methodology** including:

- references to the technical guidance, or other published material;
- estimated background concentrations used in the assessment, plus a reference to information sources or full details of the estimation method;
- full details of how any indicator pollutants have been calculated; and
- full details of how any surrogate statistics for estimating averaging time for a pollutant concentration have been worked out.

1.50 For simplicity, the authority should consider using a map to show geographically based information and the report of the second stage should conclude by listing which pollutants need further review and assessment at which locations and from what sources.

Information needed to Complete a Third Stage Review and Assessment

1.51 Councils should carry out a third stage review and assessment of a pollutant where the first, and, where undertaken, the second stage review and assessment have revealed a significant risk of an air quality objective not being met for any pollutant of concern. In the third stage, the district council is expected to carry out an accurate and detailed review and assessment of current and future air quality. **District councils must predict whether they are unlikely to achieve an air quality objective on time at a relevant location.** This will be the crucial factor triggering the designation of AQMAs. What each district council needs to do will vary depending on the extent of current modelling or monitoring.

1.52 The report of the third stage review and assessment should begin by listing the pollutants that need further examination, based on the first and/or second stage. For each pollutant of concern, the authority should then give the following:

(i) Details of any automatic or non-automatic **monitoring**, including:

- the pollutant species measured;
- the pollutant concentrations and averaging times;
- the monitoring period;
- an estimate of the accuracy and precision of the measurements, including any evidence of positive or negative bias;
- the monitoring technique used (including reference to British or European standards where appropriate);
- whether the sampling system was gas or particulate;
- site details and description, including Ordnance Survey map co-ordinates;
- the basis for site selection;
- quality control and assurance procedures, including (where appropriate), site maintenance, and calibration, service and maintenance of analysers;

- calibration gas trace ability or certification, where appropriate;
- a description of data-processing techniques, including validation, screening or review;
- information on data return; and
- reference to the technical guidance, or other published material.

(ii) Details of the construction of any **emission inventories**, including:

- the pollutants considered;
- the relevant period;
- the spatial resolution (e.g. whether the information is presented on a 1km x 1km grid square)
- the geographical boundary;
- the information sources used to find the factors influencing current and future pollutant emission levels; and
- a methodological statement referring to the technical guidance on emission inventories. If the authority used another published method, it should include a full methodological statement, detailing any surrogate statistics and assumptions, such as fuel use, activity patterns, traffic models etc.

(iii) Details of any **modelling**, including:

- model outputs, including where appropriate, predicted pollutant concentrations for current air quality and for the end of the relevant period;
- details of, or reference to, model input data including, where appropriate, assumed meteorology, pollutant emissions, traffic flows and speeds, road dimensions, street geometry and industrial operating conditions;
- the name and description of models;
- information on estimated uncertainty in model outputs;
- details of how the model has been validated; and
- reference to the technical guidance on the selection and use of dispersion models, or other published material.

(iv) Details of the **review and assessment methodology** including:

- references to the technical guidance, or other published material;
- estimated background concentrations used in the assessment, plus a reference to information sources or full details of the estimation method; and
- if relevant, full details of how any surrogate statistics for estimating averaging time for a pollutant concentration have been worked out.

1.53 For simplicity, the district council should consider using a map to show any geographically based information.

- 1.54 The report should include a summary of the findings for all regulated pollutants. If, for example, the council has decided not to go beyond a first or second stage review and assessment for particular pollutants, the reasons should be made clear in the report. The report should conclude by listing those pollutants for which the district council considers it will not meet the objectives in time. For these pollutants, it should describe all those areas where there may be exposure over the relevant averaging period and for which it proposes designating an AQMA. This description should take into account likely developments that may affect exposure to existing or new sources.
- 1.55 Where a district council proposes using an administrative boundary for designating an AQMA rather than the exact area of exceedence that the scientific analysis would suggest, it should make this clear in the report. In these cases, councils should include details of the exact area of exceedence suggested by their scientific analysis, and their reasons for designating boundaries that do not exactly match it.
- 1.56 Where it is predicted that an AQMA is required to be designated, it will also be necessary to: -
- Calculate accurately how much of an improvement in air quality would be needed to deliver the air quality objectives within the proposed AQMA;
 - Refine knowledge of the sources of pollution so that air quality action plans can be properly targeted by relevant authorities;

This will allow relevant authorities to use this work to determine the likely effects of particular policy measures, such as for example the introduction of a low emission zone or other traffic management scheme and enable the preparation of action plans at an early stage.

Calculating the Improvement Necessary inside an AQMA

- 1.57 Before designating an AQMA, a district council needs to have shown that, in its judgement, an exceedence of any one of the prescribed air quality objectives is “likely”. The assessment will have shown approximately how large any exceedences are likely to be. It should therefore be relatively straightforward to calculate how much of an improvement in, eg, ambient levels of NO₂ across the different parts of the AQMA would be necessary to achieve the relevant objective.
- 1.58 This, however, is only a first step. The assessment needs to show that the district council has calculated how great a reduction in emissions of oxides of nitrogen (NO_x) it would be necessary to deliver. For example, a 4µg/m³ improvement in ambient NO₂ levels, or by how much emissions of fine particles (PM₁₀) from a quarry would need to be reduced to deliver the prescribed objectives in the vicinity of a nearby row of cottages.
- 1.59 Having done these calculations, the relevant authority will be in a better position to consider whether the measures necessary to achieve these emission reductions would be proportionate and cost-effective. It is important to note that a reduction of 10% in total emissions will not necessarily result in a 10% improvement in ambient air quality, because this fails to take account of background concentrations and also

the complex atmospheric chemistry involved in, for example, the conversion of NO to NO₂.

Source Apportionment

- 1.60 One of the most important elements of an assessment is the consideration of the extent to which different sources contribute to the problem. Is road transport entirely to blame for the exceedence of an NO₂ objective, or is there a significant contribution from an industrial source? To what extent do other sources contribute (e.g. aircraft or train movements)? Within the road transport sector, to what extent are different classes of vehicle responsible for the emissions? The assessment should consider the main types of vehicles that are causing the problem i.e. HGVs, buses, taxis and cars, as this may differ between district council areas. Does the traffic in the whole urban area contribute more to the exceedence than the nearby road? Are sources outside the district council's immediate area contributing to any significant extent?
- 1.61 Only when a reasonably clear idea of the total breakdown of emissions from all sources emerges can a sensibly targeted action plan be produced. It will not always be possible to do this with absolute precision, and of course different meteorological conditions at different times will have an effect on the relative contribution from different sources. But district councils must show that they have calculated, in rough percentage terms where appropriate, the extent to which different sources are responsible for any forecast exceedences. This will allow in due course consultees, including the Department, to form a view on whether the action plan is proportionate and properly targeted.
- 1.62 Likewise, if a source over which a district council has little control (such as aircraft movements within the periphery of an airport) is responsible for a significant percentage of local emissions, a district council should not demand disproportionate emissions reductions from other sources in pursuit of the objectives. Instead the district council should note that further emissions reductions are likely to be needed from, e.g., an airport before the objectives can be achieved.

Completion of Second Round Reviews and Assessments

- 1.63 The Department expects district councils to complete their second round of reviews and assessments **by April 2007**.
- 1.64 District councils are expected to submit their Updating and Screening Assessments to the Department and to other statutory consultees⁴ (see Table 4 on) **by end of April 2006**. The Department does not believe district councils will need to consult widely on these Updating and Screening Assessments but they should still make

⁴ Statutory consultees are those set out in Schedule 2, Paragraph (2) of the Environment (NI) Order 2003; the Department of the Environment, each District council whose district is contiguous to the district council, competent authorities, bodies or persons representative of business in the district, appropriate other bodies or persons.

the results available to the public. It will ultimately be up to district councils as to how wide they consult on these Assessments.

- 1.65 If the Department does not accept the district council's conclusions to proceed or not to proceed to a Detailed Assessment, then the council will be invited to provide written comments justifying their decision within a specified deadline set out in the appraisal letter. This will be a short deadline in keeping with the need to complete the first step as quickly as possible.
- 1.66 Those authorities that have to proceed to a Detailed Assessment are expected to submit their draft (but complete) report to the Department (as well as to other statutory consultees) for appraisal by end of April 2007 (see Table 4). District councils will generally wish to consult the public more fully at this stage. Where the Department's appraisal has indicated that the findings are not accepted (i.e. that the proposed AQMA or proposed adjustments to an existing AQMA is/are unjustified or that no declaration is proposed when there appears to be a case for one), the council must take the comments into account and carry out the following:
- Send further comments in writing to the Department responding to the points made in the appraisal;
 - Where necessary, revise relevant parts of the Detailed Assessment and resubmit the document to the Department within 3 months of receipt of the appraisal report.
- 1.67 District councils may wish to seek clarification on the findings of the appraisal process and should in the first instance contact the Review and Assessment Helpdesk for further help. The Review and Assessment Helpdesk can discuss the details of individual cases and provides advice on responding to any points raised in the appraisal.

Helpdesks

- 1.68 The Government and the Devolved Administrations continue to fund a number of helpdesks that provide technical guidance on monitoring, modelling, and emissions. The Review and Assessment Helpdesk also provides general advice on all aspects of the review and assessment process. All the Helpdesks' web sites contain useful advice, as well as lists of frequently asked questions and answers. District councils are strongly recommended to make full use of the Helpdesks to help them with the first round and subsequent rounds of air quality reviews and assessments. Defra and the Devolved Administrations are funding an Air Quality Action Plan Helpdesk operated by Casella Stanger (in association with Transport & Travel Research (TTR)) to assist authorities with their air quality action plans.

Table 2: Helpdesks for District Councils

Helpdesk	Operated by	Contact Details
Review & Assessment	Air Quality Consultants Ltd. and University of West of England, Bristol	0117 344 3668 aqm-review@uwe.ac.uk www.uwe.ac.uk/aqm/review
Monitoring	Netcen	01235 463356 aqm.helpline@aeat.co.uk www.airquality.co.uk
Emissions	Netcen	01235 463356 aqm.helpline@aeat.co.uk www.airquality.co.uk
Modelling	Casella Stanger	020 7902 6119 modelhelp@stanger.co.uk www.stanger.co.uk/airqual/modelhelp
Action Plans	Casella Stanger	020 7902 6130 actionplanhelp@stanger.co.uk http://www.stanger.co.uk/actionplan

Future Air Quality Reviews and Assessments

1.69 The Department expects that district councils should undertake reviews and assessments of air quality every three years. This means that all district councils should commence an Updating and Screening Assessment during 2005 and 2008 for submission to the Department by April 2006 and 2009 respectively. Those authorities that need to carry out a Detailed Assessment will have to submit their more detailed review and assessment reports by end of April 2007 and 2010 (see Table 4 for timescales).

Review and Assessment Progress Reports

1.70 The evaluation of the first round of reviews and assessments recommended that Defra and the Devolved Administrations should request local authorities to produce annual air quality progress reports. The Department accepts this recommendation and therefore recommends that district councils provide review and assessment progress reports according to the recommended timescales in Table 3 and 4 to ensure continuity in the LAQM process.

1.71 The Department expects district councils to produce these review and assessment progress reports in between the next rounds of review and assessment. All district

councils are requested to submit these progress reports by end of April 2005 (reporting, where possible, on any provisional monitoring data collected over 2004) and end of April 2008 (reporting on any provisional monitoring data collected over 2007).

- 1.72 Those councils that do not have to carry out a Detailed Assessment following the Updating and Screening Assessments in April 2006 and 2009 will be expected to submit review and assessment progress reports by end of April 2007 and 2010 as well as in 2005 and 2008.
- 1.73 Guidance on the content of progress reports will be issued separately by the Department following a consultation exercise. The format of the review and assessment progress report is likely to mirror the Updating and Screening Assessment. **It is intended to check if there have been any changes in respect of all seven pollutants.** At the time of submission of the progress report, district councils will be expected, where possible, to report any provisional monitoring data over the previous calendar year. Further details on the progress reports will be provided via the helpdesks by mid 2003.
- 1.74 For district councils these progress reports will:
- Make the three-yearly assessment work that much easier;
 - Provide regular and useful indicators for district council bench-marking, quality of life or sustainability indicators (or equivalent);
 - Help maintain the profile of local air quality management within the district council;
 - Provide for information needs in relation to planning and transport planning processes (i.e. transport plan annual reviews, development control);
 - Help towards satisfying or perhaps for some district councils justifying the expenditure on air quality modelling and monitoring.
- 1.75 For the Department, these reports will provide a valuable indication of:
- Progress towards meeting the air quality objectives;
 - The extent to which any air quality action plan is delivering improvements in air quality;
 - The impacts of any new road schemes or other developments
- 1.76 At any time during the progress reporting years, if a district council identifies a risk of air quality objective exceedences, then that council should proceed to carrying out a Detailed Assessment to identify formally the need to declare any AQMAs. District councils in this situation should not delay until the next full round of reviews and assessments.
- 1.77 Details of the recommended timescales for subsequent rounds of reviews and assessments and submission of progress reports can be found in Table 4.

Timescales for Key Stages of the LAQM Process

1.78 Local air quality management is fundamental to helping the Government and the Devolved Administrations achieve the objectives in the Air Quality Strategy, many of which reflect the legally binding EU limit values. All relevant authorities therefore have a crucial role to play in delivering cleaner air and should carry out their LAQM duties according to the recommended timescales in Tables 3 and 4.

Table 3: Recommended Timescale for Submission of Reviews and Assessments from the First Round

LAQM Activity	Completion Date	Which Authorities?
Stage 2/3 Report	31 December 2003	All district councils who identified the need to proceed beyond stage 1
Consultation on Stage 2/3 reports and notification to all other relevant authorities if intending to declare an AQMA	March 2004	All district councils
Declaration of AQMA	April 2004	Those councils who have determined that areas within their district will exceed AQS objectives
Submission of draft action plan to other relevant authorities	July 2004	Those councils who have determined that areas within their district will exceed AQS objectives
Submission of actions to district councils	October 2004	All other relevant authorities indicated in AQMA assessment reports
Consultation on completed draft action plans	March 2005	Those councils who have determined that areas within their district will exceed AQS objectives
Submission of actions plans	April 2005	All district councils who have declared AQMA's
Progress Report	April 2005	All district councils

Table 4: Recommended Timescale for the Submission of Reviews and Assessments and Annual Progress Reports of the Second Round.

LAQM Activity	Completion Date	Which Authorities?
Updating and screening assessment	April 2006	All district councils
Detailed assessment	April 2007	Those district councils which have identified the need for one in their April 2006 updating and screening assessment.
Progress report	April 2007	Those district councils which identified that there was no need for a detailed assessment in their April 2006 updating and screening assessment.
Progress Report	April 2008	All district councils
Updating and screening assessment	April 2009	All district councils
Detailed assessment	April 2010	Those district councils which have identified the need for one in their April 2009 updating and screening assessment.
Progress report	April 2010	Those district councils which identified that there was no need for a detailed assessment in their April 2009 updating and screening assessment

Air Quality Management Areas

- 1.79 District councils have to designate those parts of their areas, where the prescribed air quality objectives are not likely to be met by, or at any point beyond the relevant deadline, as AQMAs. This applies only to those locations where members of the public might reasonably be exposed. Under Article 12 –(1) of the Order, district councils have to designate these AQMAs “by means of an order” (see chapter 2 for further details).
- 1.80 If at any time throughout the LAQM process, it becomes apparent to the district council that there are likely to be exceedences in any part of their borough or district through collecting monitoring data, they should submit the monitoring data and proposals for designating any AQMAs to the Department. They should not await subsequent rounds of reviews and assessments before designating an AQMA.

- 1.81 District councils should aim to designate their AQMAs as soon as possible after they have formally identified the need for them. In practice, authorities should aim to make the necessary orders within 3 months following recognition of the need to declare and subsequent approval from the Department that an AQMA is needed.

Assessments of Air Quality within AQMAs

- 1.82 Article 13 –(1) of the Order requires district councils to carry out an assessment of existing and likely future air quality in an AQMA. This further assessment is intended to supplement information the authority already has. For more details on these further assessments see chapter 2.

Air Quality Action Plans

- 1.83 Where district councils have designated any AQMAs, they have a duty under Article 13 –(2)(b) of the Order to produce an action plan. This plan must set out what measures the authority intends to introduce **in pursuit of the air quality objectives**. It should also include timescales to indicate by when the measures will be implemented. District councils **are not obliged** to meet the objectives but they must show that they are working towards them. Further information and guidance on the preparation and implementation of action plans can be found in chapter 3.
- 1.84 The Environment (NI) Order 2002 does not prescribe any timescale for preparing an action plan but the Department expects them to be completed within 12 months following the designation of any AQMAs. (see Table 3)
- 1.85 **District councils should note the need to submit an action planning progress report following completion of the final action plan.** Once a local authority has produced its final action plan, it will generally need to submit a first progress report by the end of the following April. In some cases, where this progress report would only cover a period of a few months, the requirement to produce a first progress report may be waived. Thereafter, progress reports will need to be submitted by end of April every year. These reports are to be submitted to the Department to update them on progress on implementing the measures (see paragraph 3.37 in chapter 3 and Appendix C).

Chapter 2

Designation of Air Quality Management Areas

2.01 District councils have a duty under Article 12 –(1) of the Order to designate those areas, where the air quality objectives are not being achieved or **unlikely** to be met on time (or beyond the deadline), as air quality management areas (AQMA). These areas have to be designated officially by means of an “order”.

Setting the Boundaries of AQMAs

2.02 There are no hard or fast rules in determining the boundaries of an AQMA. Whilst the legislation requires authorities to designate as AQMAs only areas where air quality objectives are not being achieved, or are not likely to be achieved within the relevant period, drawing boundaries on the latter basis necessarily involves an element of judgement. In some cases this has resulted in whole borough designations (e.g. some of the London district councils). Some local authorities in Great Britain have designated isolated buildings, single streets, road networks or parts of motorway or trunk road junctions. A number of authorities have chosen to designate more than one individual AQMA in their areas – some have designated two, three or four separate areas, with over 10 and even 20 individual AQMAs in some local authorities.

2.03 In deciding where to draw the boundaries of an AQMA, district councils might wish to consider some of the following points:

- It may be administratively much simpler to designate a wider area, based on existing boundaries and natural features. This avoids the need to draw artificially precise lines on maps;
- Wherever the boundaries of the AQMA are drawn, the action plan is likely to need to cover a wider area;
- Designating a number of smaller AQMAs, rather than one single large area, can allow an authority to demonstrate progress by “ticking off” individual areas as air quality improves there;
- Declaring smaller, individual AQMAs may provide a clear focus on the hotspot locations within a district council. This may prove particularly important for informing the DOE/DRD planning processes as to where the more sensitive planning proposals may need to avoid;
- A more focussed approach to declaring AQMAs may provide a better indication of where resources need to be allocated in terms of equipment and overall effort.

2.04 The ultimate decision for defining the boundaries of an AQMA is entirely up to each individual district council either working on its own or in partnership with other councils, where a joint AQMA is proposed. They will need to explain and justify their proposed boundaries to the Department.

- 2.05 District councils may also wish to take into account the advice in the National Society for Clean Air and Environmental Protection's (NSCA's) informal practical guidance: "Air Quality Management Areas: Turning Reviews into Action" which provides a toolkit for authorities to help them define and declare AQMAs. This guidance can be found on the NSCA web site at www.nasca.org.uk

What should an AQMA Order look like?

- 2.06 The exact wording to be included in an order is at the discretion of the individual district council, although a model example of an order can be found in Appendix B. It is recommended that district councils include a map showing the area to be designated and to include a description of the area. For example, a larger AQMA may be described according to its boundaries near to major roads/motorways (i.e. bordered by M1 to the south, etc). A smaller AQMA may need a more detailed description listing individual streets or other physical features. In some cases, it may be appropriate to list the individual properties affected but there is no legal requirement to do this, however the Department has a power in the legislation to prescribe the form of an order.
- 2.07 It is also recommended that the order should include the date on which it is intended that the AQMA should come into force, a list of the pollutants and the actual objective/s for which the AQMA has been designated. District councils should notify all other relevant authorities as appropriate that an AQMA has been designated by submitting a copy of the order. They are also required under Article 12—(3) to publish in the Belfast Gazette and once at least in each of two successive weeks in more than one newspaper circulating in the district a notice stating that the order has been made and specifying a place where a copy of the order and map may be inspected free of charge.

AQMAs and Local Land Searches

- 2.08 There is no legal requirement to include information on AQMAs in local land searches, but it may be very helpful to do so.

Duties in an Air Quality Management Area

- 2.09 Under Article 13 –(1) where an AQMA has been designated the district council is required to:
- Assess existing and likely future air quality within the AQMA;
 - Assess why air quality standards or objectives are not being achieved within the AQMA by the relevant dates.
- 2.10 To guide district councils in completing air quality assessments that fulfils the requirements of Article 13 (1) of the Environment (NI) Order 2002 they should consider the requirements of technical guidance LAQM TG (00) and where practical LAQM TG (03) and in addition consider the points discussed below
- 2.11 District councils will only have to undertake assessments under Article 13, if: -

- They have to designate a AQMA within their area - either as the result of a review and assessment or where the evidence subsequently comes to light from continuous monitoring that an AQMA needs to be designated;
- They extend the boundaries of an existing AQMA;
- The predicted pollution levels within an existing AQMA have increased significantly; or
- The AQMA stayed the same or became smaller but the pollution sources changed significantly (in the latter two cases, it might be appropriate for further source apportionment)

2.12 The assessment should provide the technical justification for the measures an authority includes in its action plan. It allows district councils to:

- Calculate accurately how much of an improvement in air quality would be needed to deliver the air quality objectives within the AQMA; to refine their knowledge of the sources of pollution so that air quality action plans can be properly targeted by other relevant authorities;
- Take account of national policy developments;
- Take account as far as possible of any local policy developments which are likely to affect air quality by the relevant date, and which were not fully factored into earlier calculations.

2.13 The Department considers that assessments within AQMAs are not an onerous or difficult task. They should form an integral part of the assessment carried out under Article 11 –(2) of the Order as part of the third stage review or detailed assessment where much of the information required will already have been gathered. Councils should by this stage have already identified which sources are responsible for the problem, and calculated how much of an emissions reduction from each would be necessary to achieve compliance with the prescribed objectives. AQMA assessments should be taken forward in parallel with the development of air quality action plans, and might usefully be seen as a technical annex to the action plan, providing a scientific justification for the measures in the main body of the plan.

2.14 Article 13 of the Order requires that a report of the results of the assessment shall be completed within a prescribed period of the AQMA order having come into force and sent to the Department and other relevant authorities. The Department advises that district councils should forward AQMA assessment reports with the action plan and submit them within 12 months following the designation of any AQMAs. Reports on AQMA assessments should also be made available to the public.

Costs and Benefits

2.15 As well as determining the impact of particular measures on emissions and ambient air quality, relevant authorities should also show that they have given due consideration to their likely costs and benefits. This will allow relevant authorities to show that they have considered a range of options and chosen the most cost-effective solution.

- 2.16 The Department considers the place for a discussion of the cost effectiveness of various policy options is in the action plan. The key thing is for a relevant authority to show that, in drawing up a package of measures for inclusion in its action plan, it has given proper consideration to the relative merits of each, including their costs and benefits. More detail on cost benefit analysis is provided in Chapter 3.
- 2.17 Once a district council has designated a AQMA and completed an assessment within that AQMA, they will not need to undertake a further assessment for that AQMA in the future, unless circumstances change (see below). **Instead, they will keep the AQMA under review on a continuous basis and monitor progress following subsequent rounds of reviews and assessments.** Where necessary, district councils should consult the Review and Assessment Helpdesk for specific advice on how extensive their assessment should be in each case.
- 2.18 If there is only to be a minor extension to an existing AQMA order, such as the encompassing of a few further buildings or inclusion of a road junction, as long as the authority has access to substantial information about the area of the extension or can reliably extrapolate from information it has about the area originally designated, the Department would not expect that authority to have to undertake extensive assessment.
- 2.19 In the case of an extension to an existing AQMA, where an order is varied by a **more substantial change, such as going from a few streets to a whole borough designation, the authority would be expected to undertake a more comprehensive assessment.**

Amendments and Revocations of AQMAs

- 2.20 District councils are able to amend or revoke an existing AQMA order at any time as set out under Article 12 –(4) of the Order. Where a district council considers it necessary to amend or revoke an AQMA, the Department expects the council to consult all the relevant statutory consultees, local stakeholders, businesses and members of the public. Those district councils should submit their further reports for appraisal showing the monitoring results and other evidence to justify their decision to take action. Where it is accepted by the Department that the revocation or amendment is justified, district councils will be expected to take the relevant action within 4 months following receipt of comments from the Department.
- 2.21 In the future, the Department expects district councils to undertake any amendments or revocations of existing AQMA orders within 4 months following submission of the Detailed Assessments or the further assessments within AQMAs where new AQMAs have been designated (**provided there is sufficient evidence to justify the proposed amendment or revocation of an AQMA**).
- 2.22 However, where a district council feels that it has sufficient evidence to justify the need to amend or revoke an AQMA **at any time**, it should submit that evidence to the Department for appraisal. For those authorities that have continuous monitoring, the Department would expect them to keep the AQMA under regular review, and to take action, where necessary, sooner rather than await the next round of reviews

and assessments.

- 2.23 Where an AQMA is revoked, district councils might wish to consider drawing up a local air quality strategy to ensure air quality issues maintain a high profile locally and to respond to any public expectations.

Notification of Amendment or Revocation of an AQMA Order

- 2.24 Once an amendment or revocation has taken place, the district council should submit the amended or revocation order to the Department for information. District councils should also notify other statutory consultees and publicise the amendment or revocation widely through the local media, so as to ensure that the public and local businesses are fully aware of the situation.

Chapter 3

Air Quality Action Plans

- 3.01 Under Article 13 –(2) of the Order a written action plan is required to be submitted to the Department in pursuit of the achievement of air quality standards and objectives in AQMAs. Action planning is the most important and significant aspect of the LAQM process, providing the practical opportunity for improving local air quality in an area where the assessment has shown that national measures will be insufficient to meet the relevant air quality objectives. Action taken at the local level can often be the most cost-effective way of tackling localised air quality problems. These action plans will also play a key role in helping the UK Government deliver the EU limit values for some pollutants.
- 3.02 The prime responsibility for preparing and submitting action plans lies with district councils. However there is also a responsibility on other relevant authorities to identify proposals in pursuit of the achievement of air quality objectives, so far as is compatible with their powers and functions. To assist this process district councils are required by the legislation to consult with all other relevant authorities prior to the final determination of the action plan.
- 3.03 An air quality action plan must include the following:
- Quantification of the source contributions to the predicted exceedences of the objectives; this will allow the action plan measures to be effectively targeted;
 - Evidence that all available options have been considered on the grounds of cost- effectiveness and feasibility;
 - How the district council will use its powers and also work in conjunction with other relevant authorities **in pursuit** of the air quality objectives;
 - Clear timescales in which the district council propose to implement the measures within its plan;
 - Details of proposals and implementation timetables submitted by other relevant authorities;
 - Quantification of the expected impacts of the proposed measures and, where possible, an indication as to whether the measures will be sufficient to meet the air quality objectives;
 - How the district council intends to monitor and evaluate the effectiveness of the plan.
- 3.04 The Environment (NI) Order 2002 does not prescribe any timescale for preparing an action plan. However, the Department expect them to be completed within 12 months following the designation of any AQMAs.
- 3.05 All relevant authorities should be aware of the NSCA’s guidance: “Air Quality Action Plans: Interim Guidance for Local Authorities” and “Air Quality: Planning for Action”

published in June 2001, which set out practical guidance on drawing up an air quality action plan and a local air quality strategy. Copies are available from NSCA tel: 01273 878770 and are on their web site at www.nasca.org.uk

- 3.06 Defra and the Department are funding an Air Quality Action Plan Helpdesk operated by Casella Stanger (in association with Transport & Travel Research (TTR)) to assist relevant authorities with their air quality action plans. Details of the Action Plan Helpdesk are as follows: Tel: 020 7902 6130 and Email: actionplanhelp@stanger.co.uk Casella Stanger have also provided information on action plans on their web site at www.stanger.co.uk
- 3.07 All relevant authorities should note the similarities in drawing up action plans with taking forward the development of local air quality strategies (see also chapter 5 on local air quality strategies).

How to make an Action Plan Effective?

- 3.08 Relevant authorities should take the following points into account:
- The assessment work within an AQMA (see paragraphs 1.60– 1.62, chapter 1) should have helped to identify the main sources of the air pollution, such as road transport, industry, domestic sources, etc. Once the main sources of the pollution have been identified, relevant authorities should carefully assess the options and measures available to them to improve the air quality locally. Authorities should ensure that the measures to be included in the plan should be cost-effective and proportionate taking into account the contribution of pollution from the different sources. They should also make sure they strike the right balance between the use of regulatory powers and other non-regulatory measures (such as travel plans, public information campaigns, “walk to school” initiatives, etc.) Examples of local transport measures can be found in chapter 6.
 - Relevant authorities should appraise and where possible quantify the wider environmental, economic and social consequences of each option and package of options. It is important that action plans do not unduly or unfairly penalise local residents and businesses. In many cases, measures that authorities take to improve air quality will have a positive impact in other ways – for example, introducing a “clear zone” may improve air quality, reduce noise and benefit pedestrians. In other cases, there may be negative impacts associated with some air quality measures – re-routing traffic away from an AQMA, for example, might increase congestion and pollution elsewhere. Relevant authorities might wish to refer to NSCA’s guidance: “Air Quality Action Plans: Interim Guidance for Local Authorities” which sets out in Appendix D of the guidance a list of potential options to be included in an action plan and their likely non-air quality impacts.
 - Equally importantly, relevant authorities should assess the cost-effectiveness of each individual measure proposed. The Department does not expect authorities to carry out a full cost-effectiveness assessment (or indeed a cost-benefit analysis – this was undertaken as part of the work in establishing the national air quality objectives), as this would be too onerous. The appraisal of cost-effectiveness should simply show that the authority has considered the costs of

implementing various options before reaching a decision as to whether it is cost-effective for the authority to implement any particular measure.

Corporate Approach

3.09 The Department expects air quality issues to be dealt with in a corporate and multi-disciplinary way. Relevant authorities need to ensure that the measures within the action plan enjoy the support of, and wherever possible are actively endorsed by, all parts of the authority.

Set up a Steering Group

3.10 It is recommended that district councils establish a steering group to take forward the development of an action plan. The members of the steering group should include officers from the district council and the other relevant authorities. Where a regional-level action plan is being drawn up it may be appropriate to include officers from different district councils. The steering group may also decide on engaging support from other outside bodies, businesses and local community groups to take the process forward.

3.11 An action plan must have the support of many departments in relevant authorities in order for it to work effectively, including in particular:

- Transport planning;
- Land use planning,
- Town centre management;
- Environmental protection
- Energy management;
- Waste management;
- Economic development,
- Regeneration
- Tourism;
- Corporate policy and resources.

3.12 Committee meetings or their equivalent may be held across departments to discuss how the action plan can be taken into account in many authority plans such as the Local Transport Plan, Development Plan, Local Community or Agenda 21 Strategy. **The involvement and support of the Chief Executive, or equivalent, with these meetings would help ensure a fully corporate approach.**

3.13 A number of commercially available models exist to help district councils and other relevant authorities to develop integrated action plans. Details of these are held by the relevant helpdesks, who can advise on their applicability and relevance to authorities individual circumstances.

Lead by Example

- 3.14 Central to an air quality action plan should be a district council's or other relevant authority's own contribution to improving air quality. Relevant authorities as major institutions, employers, regulators and service providers, have the opportunity to improve air quality through their own behaviour and actions. In that way, they can prompt others to act positively to improve air quality. Please also see paragraphs 5.06 – 5.08 in chapter 5.

Co-operation between District Councils

- 3.15 Air quality within AQMAs is likely to be influenced by factors beyond district council boundaries and action plans should reflect this. District councils are already required under Article 13 to consult with other relevant authorities on the content of action plans. It is recommended that they also consult neighbouring authorities. In many cases, action plans will need to complement those of adjoining authorities, whilst in some cases, they may need to complement the action plans of other more distant authorities, due to the fact that some measures might have a knock-on effect elsewhere. In England, Scotland and Wales some local authorities have recognised this fact and have chosen to develop regional air quality action plans. The Department welcomes this approach and recommends that district councils and other relevant authorities should consider drawing up regional air quality action plans, where appropriate.

Engaging the Public

- 3.16 Effective consultation and interaction with the general public is extremely important in preparing an action plan. Local residents, community groups and local businesses must be involved from the start when the action plan is being drawn up. Relevant authorities must explain fully why such measures have to be introduced and should seek innovative ways to engage the local stakeholders. The action plan will not work or be effective unless it has support from the local community. This also applies to developing a local air quality strategy. More detailed information on consulting and engaging the public can be found in chapter 4.

Actions outside a District Council's Control

- 3.17 Some of the actions needed to improve air quality may well be outside the district council's remit. This is the case where, for example, an industrial process regulated by the Industrial Pollution and Radiochemical Inspectorate is contributing to air quality exceedences, or where high levels of pollutants exist as a result of motorways or trunk roads, regulated by the Roads Service.
- 3.18 All the relevant Government Departments are committed to the local air quality management process and are statutorily required to contribute in the development of action plans where the review and assessment process has identified sources and exceedences of air quality objective attributed to that department's responsibility.

- 3.19 Some district councils may have air quality problems around airports located within or close to their council area. As well as tackling pollution from the traffic flowing to and from an airport, in some cases, there may be a need to address pollution from the airport itself. District councils in this situation will have to liaise closely with the airport operators in considering solutions and measures in pursuit of the air quality objectives. Further details on airports can be found in chapter 6.
- 3.20 District councils should make clear any limitations in their action plans and show the extent to which they rely on actions by other relevant authorities to work towards meeting the objectives.
- 3.21 Some district councils may feel that further action at the national level or new legislative powers will be required to tackle localised air quality problems. District councils may wish to make this case to the Department of the Environment. They may wish to take this forward through their Regional Groups or Local Government Associations or other professional organisations. These organisations might then act as co-ordinators on the district councils' behalf.

Format of an Air Quality Action Plan

- 3.22 The key points to include are as follows:
- Introductory chapter should explain what the local authority's duties are under Part III of the Environment (NI) Order 2002 and identify the main sources of pollution that need to be tackled to bring about improvements to air quality within the AQMA;
 - List the measures that have been considered to tackle the poor air quality and identify those to be implemented following a basic cost-effective analysis of the different measures;
 - The measures within the plan should indicate, **where possible**, what the anticipated air quality improvements are likely to be;
 - Each of the measures should set out, **where possible**, what the wider improvements or impacts might be following their implementation. Examples include the impact on local noise levels, impacts on road safety and whether traffic congestion is increased or reduced elsewhere in the trunk road network;
 - The action plan should indicate what action is expected from the district council and the other relevant authorities. The plan should indicate who else is responsible for helping to work towards achieving the objectives, for example, airport operators.
 - A timetable should be included showing by when each of the measures will be implemented.
- 3.23 Relevant authorities should be aware of the checklist used by Casella Stanger to appraise the action plans. This may help authorities in developing and revising their action plans. The checklist is available from the Casella Stanger web site at www.stanger.co.uk/actionplan

Taking Account of National Policy Developments

3.24 In many cases, national policy developments may affect the extent to which local actions are necessary to achieve the prescribed air quality objectives. Examples of the sort of policy development that might be relevant are:

- Changes to nationally prescribed air quality objectives, which may themselves reflect changes to EC limit values (note, however, the Department have announced that, in the short term at least, there are unlikely to be any changes to the objectives which district councils are currently working towards. Any changes to the PM₁₀ objective in particular are likely to take effect well beyond the current 2004 deadline);
- Scientific and technical developments, such as changes to the emissions factors to be used in certain calculations;
- Major policy developments such as the announcement of new local road schemes;
- The introduction of new powers for district councils / relevant authorities e.g., roadside emission testing powers.
- Measures to promote the use of cleaner fuels, which might affect the composition of the total vehicle fleet by the relevant date;
- Decisions on major planning cases, such as the location of a new bypass, or the siting of new airports or runways;
- Developments in the industrial pollution control framework.

3.25 In each case, the authority should consider whether there are any local implications to be taken into account. For example, an authority may find that a national policy development means that the forecast area of exceedence is larger or smaller than it would otherwise have been. In such cases, the AQMA order can be amended or even revoked. In other cases, the forecast area of exceedence may stay the same, but the amount by which air quality is forecast to exceed the prescribed objectives increases or decreases. This will have implications for the scope and severity of the measures to be included in the action plan.

Taking Account of Local Policy Developments

3.26 Local developments too can have a bearing on AQMA designations and action plans. Examples of the sort of local developments which should be taking into account are:

- Changes to the local or regional plans, which may affect long-term air quality forecasts;
- The granting or refusal of planning permission for particular developments which were not known about at the time of the AQMA designation;
- Changes to the operation of local industrial processes (some plants may be operating at lower or higher capacity, or may have changed the nature of their operation, or may have been granted different pollution permits).

Costs-effectiveness Analysis

- 3.27 In determining the impact of particular measures on emissions and ambient air quality, district councils and other relevant authorities should show that they have given due consideration to their likely costs and benefits. Contained within the action plan there should be an estimate of the costs and feasibility of different abatement options. This will enable authorities to show that they have considered a range of different abatement options and chosen the most proportionate and cost-effective solution.
- 3.28 This part of the guidance has been the source of concern to many authorities, who have interpreted it as meaning that complex economic theory needs to be applied to the development of their action plans. This is not the case. DEFRA and the devolved administrations do not expect authorities to undertake full cost / benefit analyses, or to attempt to calculate for themselves, e.g., the monetary value of lives lost. The objectives included in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland already take full account of the relevant costs and benefits⁵, and authorities should not attempt to redo these calculations.
- 3.29 It is, however, important that district councils and other relevant authorities consider all the costs (direct and indirect), although there is no need to attempt to quantify all the indirect costs. They should also look at the feasibility of different abatement options.
- 3.30 The Department does not expect a detailed analysis of the cost-effectiveness of every conceivable policy option for improving air quality inside an AQMA. This would take too long and prove far too costly for most authorities. For some policy options (such as, e.g., providing better information on air quality to local people through the local media, or encouraging local employers to adopt transport plans for their staff) it will be all but impossible to estimate the effectiveness in any scientific way.
- 3.31 What the Department will want to see, however, is an indication that district councils and other relevant authorities have considered a range of options and have tried to quantify, in however crude a way, their relative cost effectiveness. Where a particular option is not considered to be cost-effective or feasible (e.g. imposing such tight constraints on an industrial process that it has to close down, or restricting traffic access to a town centre to such an extent that the local economy suffers), an authority is under no obligation to implement it. Article 13 of the Order makes it clear that authorities are required to comply with or pursue the achievement of air quality standards and objectives in the designated area.
- 3.32 The main purpose of the cost-effectiveness evaluation is to ensure that authorities are pursuing a balanced and realistic approach. Examples of questions that authorities might consider are as follows:

⁵ See too "An economic analysis of the National Air Quality Strategy objectives (the interim report of the Interdepartmental Group on Costs and Benefits), published in January 1999.

- Is an authority, for example, imposing heavy costs on the operator of a small industrial process in order to secure reduced emissions of NO_x when in practice this will have very little impact on NO₂ concentrations?
- Where abatement options are likely to be expensive (e.g. in respect of an industrial process), has consideration been given to minimising the costs for the operator?
- Have different possible traffic control strategies been assessed to see which is likely to deliver the greatest reduction in emissions for the lowest cost?

3.33 The estimate of costs should include not only direct costs (such as the costs to the Roads Service of pedestrianising a particular high street, or the costs to an operator of fitting emissions reduction kit to an industrial process), but also indirect costs (such as the potential reduction in income for a retail outlet on a newly pedestrianised street). This process should allow authorities to reach an informed decision on the most cost-effective package of measures to deliver the necessary local air quality improvements.

3.34 Precise estimates will not be possible, nor does the Department intend to prescribe exactly how the calculation should be undertaken. The key things that authorities should consider are:

- How much of an improvement in ambient air quality is likely to result from a particular action or policy measure;
- How much the implementation of a particular action or policy measure is likely to cost, both directly and indirectly, and on whom the costs are likely to fall;
- Whether there might have been other policy options for delivering the same result, and, if so, why they were considered to be less cost-effective (if there were no real alternatives that could have been considered, this should be explained within the action plan).

District councils and other relevant authorities should note that doing nothing is not always a cost-free option, as there might be indirect costs involved, such as health impacts on the local community.

Feasibility

3.35 As with costs and benefits, district councils and other relevant authorities will not be expected to provide detailed feasibility studies of various policy options. They will, however, be expected to show that they have considered the likely social as well as economic impacts of the policy measures they intend to pursue as part of their action plans. They should also consider any other environmental benefits or disbenefits that might result from their proposed actions (particularly where there are likely to be impacts on, e.g., noise or greenhouse gas emissions).

Links with Local Transport Plans

3.36 In England, where an air quality problem arises primarily because of transport pollution, authorities can choose to integrate their action plans into the local

transport plan (LTP). This approach can support closer alignment of transport and air quality policies and the involvement of all relevant expertise in tackling the problems. District councils and other relevant authorities may wish to consider the merits from adopting a similar approach in Northern Ireland

Keeping the Action Plan under Review

- 3.37 District councils have a duty to keep their action plans up to date. Article 13 –(6) of the Order states that a district council may from time to time revise an action plan. Whenever an action plan is revised, district councils must consult the Department and other relevant authority.
- 3.38 In order to ensure that district councils and other relevant authorities implement the measures within an action plan by the timescales indicated within that plan, the Department expects district councils to submit annual action planning progress reports once the final action plan has been drawn up. These progress reports would simply list the measures within the action plan and include the timescales by when they are/were due to be implemented and give an update on progress in terms of implementing them (see Appendix C for the recommended format for these reports). Where measures are due to be implemented by other relevant authorities the district council will need to liaise with those authorities and provide a co-ordinated response.
- 3.39 These action planning progress reports should be submitted by the end of April each year (see para.1.83 chapter1), and where possible, be submitted in parallel with the review and assessment progress reports referred to in chapter 1. District councils with air quality action plans may wish to incorporate the two progress reports into one document at that stage.

Examples of District Council Measures to Improve Air Quality

- 3.40 District councils can implement a number of measures to improve air quality. The most significant measures are likely to be introduction of smoke control areas and regulation of prescribed industrial processes. The following are some examples of legislative controls within the environmental protection regime of local government that may assist in improving local air quality.

Regulation of Industrial Emissions – Local Air Pollution Control

- 3.41 District councils can control emissions from certain industrial processes under the Local Air Pollution Control regime. This regime was introduced under the Industrial Pollution Control (NI) Order 1997 and covers emission to atmosphere from approximately 450 individual processes. District councils may grant an ‘authorisation’ for a process to operate subject to certain conditions, reflecting those set out in the Process Guidance Notes issued by the Department to ensure consistency across the country, whilst also including site specific conditions. Operators must use the best available techniques not entailing excessive cost (BATNEEC) to ensure pollution is minimised. Breaching conditions of an

authorisation is an offence and authorities may serve Enforcement, Prohibition or Revocation notices on operators, preventing further pollution.

- 3.42 This regime allows district councils and operators to work together over the long term to reduce atmospheric pollution to a minimum.
- 3.43 LAPC is gradually being subsumed by Local Authority Pollution Prevention and Control (**LAPPC**), which covers installations known as **C installations**.
- 3.44 These systems require the operators of specified industrial and other installations to obtain a permit to operate. An application must be made and the regulator then decides whether to issue or refuse a permit. If a permit is issued, it will include conditions aimed at minimising pollution.
- 3.45 The installations regulated under LAPPC (**Part C installations**) are those whose air emissions have been regulated by district councils under the Industrial Pollution Control (NI) Order 1997 which do not come under the scope of the IPPC directive and will remain subject to **air-only regulation**.

Industrial Smoke Control – Clean Air (Northern Ireland) Order 1981

- 3.46 District councils can also control emissions from certain industrial processes, which fall outside the provisions of LAPC using provisions of the Clean Air (Northern Ireland) Order 1981. This Order includes powers to:-
- Prohibit dark smoke from a chimney of any building (subject to certain permitted periods and exemptions);
 - Prohibit dark smoke from industrial or trade premises (subject to certain exemptions);
 - Approve chimney heights of certain furnaces.

Domestic Smoke Control – Clean Air (Northern Ireland) Order 1981

- 3.47 The provisions for domestic smoke control have helped to reduce and regulate smoke and ground level sulphur dioxide from domestic sources effectively since 1964. District councils may declare a smoke control area by making a smoke control order. Its effect is to:
- Require people to adapt their fireplaces to burn smokeless fuel;
 - Restrict the burning of unauthorised fuels except in exempted fireplaces;
 - Restrict the sale of unauthorised fuels.
- 3.48 In a smoke control area, it is an offence to emit smoke from any chimney. It is also an offence to acquire for use or to sell for delivery any fuel, other than an authorised smokeless fuel, unless it is to be burned on a fireplace exempted from the smoke control order.

Statutory Nuisance – Public Health (Ireland) Act 1878

- 3.49 Section 107 of the Public Health (Ireland) Act 1878, as amended, lists categories of statutory nuisance. If a district council is satisfied that a nuisance exists, or is likely to recur, it is required to serve an abatement notice. Subject to certain exemptions, the following can constitute a statutory nuisance when prejudicial to health or a nuisance:
- Smoke other than smoke from a chimney
 - Premises in such a state as to be a nuisance or prejudicial to health (e.g. fumes or gases emitted from private dwellings); and
 - Grit, dust, or effluvia arising on industrial, trade or business premises.
- 3.50 The nuisance regime complements the more specific industrial pollution control regimes of the Clean Air (Northern Ireland) Order 1981, the Pollution Control and Local Government (Northern Ireland) Order 1978, the Industrial Pollution (Northern Ireland) Order 1997 and the Environment (Northern Ireland) Order 2002. District councils use nuisance provisions to deal with emissions that, by definition, are prejudicial to health or constitute a nuisance. It is not a standards-based approach.

Chapter 4

Consultation and liaison

Background and Statutory Requirements

4.01 The 2002 Order provides the statutory basis for consultation and liaison in respect of local air quality management. The Department expects district councils to continue to work closely with other district councils, other relevant authorities, agencies, businesses and the local community to improve local air quality. District councils need to exchange data with other relevant authorities and neighbouring district councils.

4.02 Schedule 2 of the Order and the Air Quality Regulations (NI) 2003 require district councils to consult:

- The Department;
- All neighbouring district councils;
- Other relevant authorities;
- Bodies representing local business interests;
- Such other bodies or persons as considered appropriate

4.03 For the purposes of the Order, district councils **must** consult on their:

- Air quality review and assessment;
- Air quality assessment in an AQMA;
- Preparation or revision of an AQMA action plan.

Consultation on Reviews and Assessments

4.04 In terms of consultation on reviews and assessments, the Department recommends the following:-

- On the completion of first round review and assessments district councils will need to consult the Department, other relevant authorities, local businesses, the general public and other appropriate bodies or persons as set out in Schedule 2.
- On the Updating and Screening Assessments, which will commence in the second round, district councils will need to consult the Department and other relevant authorities. It is at the discretion of the district council as to how wide the consultation should be at this stage, and there may not be a need for a full public consultation. However, district councils should make these assessments available to the public.
- On the Detailed Assessments, district councils will need to consult the Department, other relevant authorities, local businesses, the public and other

appropriate bodies or persons. This should be a more comprehensive consultation exercise than at the Updating and Screening stage.

- 4.05 On the review and assessment progress reports, district councils will need to submit these to the Department for consideration. District councils may choose how wide they wish to circulate these reports but it would be good practice to make copies available to all other relevant authorities, local stakeholders, and the general public for information.
- 4.06 For those district councils with AQMAs, action planning progress reports are also required to be submitted to the Department. Councils may wish, to incorporate the action planning progress report with the review and assessment progress report into one document and submit the reports at the same time. Similarly, with the review and assessment progress reports, district councils should consider making the action planning progress reports available to all relevant authorities, local stakeholders and the general public for information.

Consultation on Assessments of Air Quality inside AQMAs

- 4.07 If an AQMA is needed or there is an extension to an existing AQMA, or where further source apportionment is needed, district councils must assess air quality within the proposed area once again. At this stage, consultation is likely to be most meaningful if it is carried out when the authority has completed its third stage or detailed assessment, as this information will drive or feed into an action plan. District councils should, where necessary, produce a report containing any relevant data collected at different stages of the review and assessment. It should also explain the methodologies it used and the conclusions it reached. Following consultation, the authority should take account of consultees' comments.

Consultation on Air Quality Action Plans

- 4.08 District councils must consult on their preparation of an AQMA action plan. Before finally determining the content of an action plan, district councils are required under Article 13 –(3) to send to the Department and each relevant authority
- (i) a copy of the order designating an AQMA;
 - (ii) a copy of the results of the assessment of air quality within the AQMA;
 - (iii) a copy of the report on the assessment of air quality within the AQMA; and
 - (iv) a copy of the district council's proposed action plan.

The Department recommends that (i) – (iii) be forwarded to relevant authorities as soon as the AQMA is declared. This information will enable relevant authorities to form a preliminary view on the plan and determine what additional proposals they need to consider implementing in order to improve air quality. Article 13 –(4) of the Order imposes a responsibility on relevant authorities to submit proposals and timescales for the implementation of measures, to the district councils within a prescribed period upon receipt of district council's proposed action plan. The prescribed period is defined in the Air Quality Regulations (NI) 2003.

4.09 When the action plan has been determined, taking account of comments and proposals submitted from other relevant authorities, the district council should consult in accordance with Schedule 2. This consultation should include:

- Details of which pollutants the district council is to consider and an indication of the pollutant emission source/s;
- What the district council is proposing to do or will need to do to meet the action plan's objectives;
- Proposals from other relevant authorities;
- The timescales for implementing each proposed measure;
- Details of other individuals, bodies or agencies whose involvement is needed to meet the plan's objectives and what the district council and other relevant authorities are doing to encourage their co-operation.

Action plans may operate over long timescales and authorities may therefore only be able to specify broad proposals initially. It is an important principle, therefore, that a further consultation is carried out if the district council or other relevant authorities revise their initial proposals while carrying out the plan.

4.10 District councils should decide the timescale for consultation. The Department recommends, however, that no consultation exercise should last for less than eight to twelve weeks.

4.11 Exchanging information is important throughout the local air quality management process. Many local authorities in England, Scotland and Wales have successfully established local steering groups to oversee the process. Some authorities have built on existing inter-authority pollution groupings. District councils in Northern Ireland may also wish to consider forming local steering groups. These steering groups should include:

- District councils representatives;
- Representatives from other relevant authorities;
- Representatives of local businesses and community groups; and
- Any other local interest groups and local residents

Co-operation between District Councils

4.12 Co-operation between authorities in England, Wales and Scotland has been greatly helped with the setting up of regional air quality groupings. These groupings can assist with the sharing of experiences and good practice in carrying out the LAQM duties. Some authorities have designated a joint AQMA and others have worked together on regional action plans and regional air quality strategies. In Northern Ireland a Greater Belfast Air Quality Partnership has been established covering six district council areas. District councils should consider the need for establishing regional groupings to address air quality issues and whether a regional approach to air quality would provide particular benefits.

Consultation with Other Relevant Authorities

- 4.13 The Strategy and Part III of the Order recognise the importance of the inter-relationship between district councils and Government Departments and public bodies in Northern Ireland. The Order makes special provision for other relevant authorities input to the review and assessment process and in the preparation of any action plan. For example, it recognises the crucial role of the Department for Regional Development with responsibility for transport policy and the importance of traffic management and transport planning in achieving the Strategy's objectives.
- 4.14 Other relevant authorities should be involved in reviewing air quality at all stages of the process. Schedule 2 also imposes a duty on district councils and authorities to exchange information. It is important, that the outcomes of review and assessments and air quality action plans are properly taken account of and integrated with plans and strategies produced by other relevant authorities. This is particularly the case with Local Transport Plans and Development Plans.
- 4.15 Where an AQMA has been designated, there is a requirement in the Order for other relevant authorities to submit details to the district council of whatever actions they propose for inclusion in an action plan. The prescribed period is defined in the Air Quality Regulations (NI) 2003. In the meantime the Department would recommend that proposals are submitted to district councils within three months. In practice, the Department hopes that other relevant authorities will usually be able to submit their proposals more quickly, particularly if they have been involved in LAQM from the start. District councils should make special arrangements to consult all other relevant authorities as soon as possible.
- 4.16 In practice, this means that district councils should consult all other relevant authorities **immediately after they designate an AQMA**. In other words, at the same time as the district itself is starting to think about its own contribution to the action plan. This should provide other relevant authorities with sufficient time to work up their proposals. District councils should then have long enough to consult more widely on a complete first draft and finalise the action plan soon after

Consultation with the Public, Local Business and other Stakeholders

- 4.17 District councils might wish to look for innovative ways of engaging local stakeholders, including local resident and community groups, as well as local businesses. If people feel personally involved in air quality issues, they are more likely to change their behaviour and support proposed measures to improve air quality locally.
- 4.18 Effective consultation generally involves the following:
- Providing user-friendly information so the recipients can fully understand the situation and how they can become involved with the process;
 - Involving the local stakeholders at an early stage in the whole process;
 - Making full use of existing networks or local community groups and, where possible, extending those networks to capture a diverse range of stakeholders;

- Setting up participative workshops or forums to make the stakeholders feel part of the consultation process
- 4.19 It is important that district councils provide information on local air quality in a clear and accessible way. District councils are ideally placed to inform the public about the causes and effects of air pollution. Many district councils have experience of health education and they should consider exploring links with Local Health Boards. They should use their local contacts, such as local newspapers, radio and libraries, etc. to reach as wide an audience as possible. Some district councils already provide regular information on air quality to the public.
- 4.20 Day to day information on local air pollution levels and advice to the public when pollution is high can be important catalysts for changes in behaviour. The adjectives used to describe levels of air pollution should be consistent nationally, to avoid confusion. The Department advises district councils to adopt the banding system used by Government, i.e. the pollution bands are described against a numerical index as follows: 1-3 (low), 4-6 (moderate), 7-9 (high) and 10 (very high). Defra and the Devolved Administrations published an updated leaflet explaining the system and how air pollution affects health in May 2002. Copies are available from Defra publications – telephone: **08459 556 000** and fax: **020 8957 5012**.
- 4.21 District councils may consider providing these leaflets and their own leaflets on air quality in public places, such as local supermarkets, doctors' surgeries, libraries, etc. They may also set up local residents meetings through their Local Agenda 21 or community plan contacts. District councils could also involve local schools and even local universities through local campaigns, by, for example, promoting more sustainable transport behaviour.
- 4.22 Involving schools in local campaigns can be an effective way of highlighting the issue among parents and children. Pupils, parents and staff can work together to develop school transport plans. The National Society for Clean Air and Environmental Protection has produced a school information pack on air quality issues and district councils could encourage schools to obtain copies. Contact the NSCA for further details on telephone **01273 878770**.
- 4.23 It is essentially up to district councils as to what methods they wish to use to engage the local stakeholders in the consultation process. In general, holding workshops which allow the delegates to take part in simple exercises and also allow them to offer their opinions on specific issues tend to work well. This is because the delegates will feel they are part of the process. Examples and case studies relating to local authority consultation techniques, looking at the techniques used and the people involved, can be found on the Review and Assessment web site at www.uwe.ac.uk/aqm/review/initiatives.html
- 4.24 An informal guidance note prepared by the NSCA contains some practical suggestions for successful consultation during the LAQM process (*Consultation: the 'how to' guide*, NSCA, August 1999). It recommends that consensus based, participative techniques can, among other things, potentially:
- Introduce local skills, knowledge, experience, resources, values and attitudes;

- Engage this with similar input from other experts, professionals and groups (other than just the local authority);
- Help to build (even rebuild) trust and confidence between different groups,
- Highlight, address and hopefully resolve conflicts between parties;
- Speed the overall timetable;
- Save resources overall;
- Introduce the sort of creativity that will make for better decision-making;
- Ensure that all key parties feel a sense of ownership and commitment;
- Provide mutual education and information exchange;
- Engage people during potentially difficult implementation stages

Public Access to Information.

- 4.25 The information which district councils holds on air quality is covered by the Environmental Information regime (i.e. the Environmental Information Regulations (Northern Ireland) 1993, as amended by the Environmental Information (Amendment) Regulations (Northern Ireland) 1998, and later to be replaced by the new Environmental Information Regulations 200*). The new Regulations are expected to be introduced before 2005. It is expected that separate guidance on implementation of the new access to Environmental Information regime will be issued to councils etc. to accompany the introduction of the new regime.
- 4.26 The 200* Environmental Information Regulations will oblige public authorities to make all reasonable efforts to organise the environmental information which is relevant to their functions with a view to its active and systematic dissemination to the public, in particular by means of computer telecommunications or electronic technology (or by both means).
- 4.27 The regulations require proactive dissemination of:
- a) texts of national, regional or local legislation on the environment or relating to it;
 - b) policies, plans and programmes relating to the environment;
 - c) progress reports on implementation of the items referred to in a) and b) when prepared by public authorities;
 - d) reports on the state of the environment; and
 - e) data or summaries of data derived from the monitoring of activities affecting, or likely to affect the environment.
- 4.28 They also oblige public authorities, subject to limited exceptions, to make any environmental information they hold available on request.
- 4.29 Within Schedule 2 of the Environment (Northern Ireland) Order 2002 there is also provision for public access to information. As well as the review and assessment reports on which they are required to consult, district councils should proactively make available copies of:

- Reports of air quality reviews
- Reports of assessments
- Orders designating an AQMA;
- Action plans;
- Other relevant authorities proposals for measures to be included in the action plan;
- Any directions given to the council by the Department.

4.30 District councils should consider the most appropriate targeting of information and how best to make it easily accessible and widely available and should consider including them in their Publication Scheme.

Chapter 5

Developing Local and Regional Air Quality Strategies

5.01 District councils do not have a statutory obligation to prepare or adopt a local air quality strategy. The Department, however, strongly recommends that all district councils, **particularly those that do not need to designate an AQMA, but have areas close to the exceedence levels**, should consider drawing up a local air quality strategy. The Department believes that it is important that **all district councils commit themselves to improving local air quality** to ensure that air pollution remains below prescribed levels. Even district councils with very good air quality may wish to develop local air quality strategies setting out how they expect to maintain good levels of air quality and also how they aim to improve on marginal compliance, taking into account cost-effectiveness.

Why Adopt a Local Air Quality Strategy?

5.02 There are many advantages and reasons for developing a local air quality strategy. These include the following:

- It can highlight the main reasons for tackling poor air quality , i.e. the link between air quality and the quality of life and the need to minimise the risk to human health;
- It can emphasise the district council's role in delivering cleaner air and lead others to deliver cleaner air by setting an example;
- It can raise the profile of air quality within a district council area and keep air quality high on the local agenda; thus keeping Councillors/Members interested in these issues;
- It can help authorities handle air quality in a corporate and multi-disciplinary way - allowing air quality considerations to be properly taken into account in all their wider policy areas, such as land use planning, transport planning, energy efficiency, waste management, economic development, and regeneration.
- It can also raise the profile of air quality in the local community and remind them of the main reasons for tackling poor air quality;
- It can be linked to other local initiatives such as community plans and Local Agenda 21, or local inventories of greenhouse gas emissions and measures to achieve local emissions reduction targets;
- It can help authorities build partnerships with local businesses, industry and the community;
- It can encourage people to do their bit to improve the local air quality;
- It can lead to greater co-operation with neighbouring authorities and strengthen the role of regional groupings;
- It can support and feed into any action plans that might be needed in future;

- It can provide a framework to help ensure that air quality objectives are continued to be met over the long-term.

How to Develop a Local Air Quality Strategy?

5.03 In developing a local air quality strategy, district councils should follow the same principles for developing an air quality action plan. **This chapter should therefore be read in conjunction with chapter 3 on action plans.** District councils may also find it helpful to refer to NSCA's Action Planning guidance, which incorporates information on area-based and local air quality strategies.

Setting up a Steering Group

5.04 As with developing an action plan, the Department recommends that district councils should set up a steering group to take forward the process of drawing up a local air quality strategy. This group should consist of council officers from relevant departments and may include officers from other district councils (where a regional air quality strategy is being drawn up) and other key stakeholders such as other relevant authorities, where appropriate.

Co-operation and Liaison within a District Council

5.05 As referred to earlier in chapter 3, the Department expects air quality to be dealt with in a corporate and multi-disciplinary way. There should be effective links between all the relevant council departments. Collaboration with departments, such as economic development and regeneration, will be important for the effective implementation of an action plan and the support from corporate policy and resource departments is of particular importance.

District Council's own Contributions to Improving Air Quality

5.06 The Department is keen that district councils should continue to communicate their commitment to delivering cleaner air in their local air quality strategy and thus act as a catalyst in this way. This will be the basis for encouraging businesses in the community to develop their own strategies to bring about improvements in air quality.

5.07 In England, Wales and Scotland many local authorities already run their own vehicles or those of their contractors on alternative fuels. Local authorities have also led the way in developing travel plans for their staff by encouraging them to use public transport, where possible, instead of travelling to work by car. District councils in Northern Ireland may wish to consider similar initiatives.

5.08 District councils can use their "green" purchasing policies to stipulate the use of low-solvent products and to use products from local sources, where available, thereby reducing transport requirements. District councils should also increase their energy efficiency by reducing emissions from large boiler plants in their buildings (e.g. offices, leisure centres, etc). District councils can also set environmental conditions in their service contracts with outside contractors.

Co-operation between District Councils and other Relevant Bodies

- 5.09 Air pollution does not respect district council boundaries. Even where the effects of pollution are localised, the solution may involve several district councils. Where strategic planning or traffic management is the answer to an air quality problem, different authorities will need to co-operate. There will also be cases where the activities of a relevant authority (for example, in traffic management or land-use planning) may have air quality implications for a number or all of the district councils in Northern Ireland.
- 5.10 It is therefore important when developing a local air quality strategy to discuss it with all other relevant authorities and neighbouring district councils or those within the regional grouping. In England, Wales and Scotland some authorities have drawn up a regional air quality strategy whilst others have drawn up a regional strategy framework which the local authorities use to develop their own local strategies. This level of co-operation can help strengthen links between the various authorities in regional groupings. **The Department recommends that district councils should look for support from other relevant authorities and neighbouring councils in drawing up their local air quality strategies and should consider developing joint air quality strategies (area-based or regional strategies), where appropriate.**

Co-operation and Partnerships with Outside Bodies

- 5.11 Local air quality problems cannot be solved by district council action alone. The success of a local strategy depends upon co-operation with other sectors. District councils may wish to include in their strategies a framework for co-operation with: the Department, other relevant authorities, and other stakeholders as they see fit.
- 5.12 District councils should consider establishing air quality partnerships with local business, industry, other relevant authorities and the community. District councils could use existing partnership arrangements, for example, cycling and public transport liaison groups, town centre management groups and neighbourhood committees and local resident groups. District councils could also seek support from local schools and universities. District councils will already have extensive experience of building partnerships with external organisations.

Format of a Local Air Quality Strategy

- 5.13 The structure and format of a local air quality strategy is entirely up to the district council. Air quality strategies can address all of the pollutants and not just those where exceedences are forecast. District councils could include other pollutants such as ozone or look to tackle pollutants peculiar to their area, such as emissions from particular industrial or domestic sources through an air quality strategy.
- 5.14 The air quality strategy should begin by establishing the problems associated with air pollution and its impact on human health, ecosystems, vegetation and buildings. This provides a focus on the risks and actions necessary to improve local air quality. It might also be useful to explain what work district councils have been

doing as part of their reviews and assessments and point out what the main pollution sources are for the area.

- 5.15 The district council should set out its intentions in the strategy of what actions need to be taken to reduce levels of air pollution, such as greater use of public transport, implement information campaigns to bring about changes in behaviour, etc. It might also be useful to explain how the actions will be carried out and if possible include any timescales. It is important to explain what actions the district council is already undertaking itself, such as using alternatively fuelled vehicles in its own fleet, or reducing emissions from its own boilers.
- 5.16 The strategy should show how district councils will take air quality into account in wider policy areas, for example, in development control and consideration of land use planning and transport policy. Where the district council has an AQMA, the strategy could feed into the air quality action plan.
- 5.17 District councils should also indicate within the strategy the co-operation needed or secured from others, such as neighbouring councils, other relevant authorities, local businesses and community groups.

Keeping the Local Air Quality Strategy up to date

- 5.18 District councils should keep their air quality strategy under regular review and revise it from time to time to take account of developments, changes and proposals with respect to local, regional and central Government relevant responsibilities.

Chapter 6

Air Quality and Transport

Introduction

- 6.01 Road transport is a source of local air pollution, and in urban areas contributes to the total emissions of nitrogen dioxide and particles (PM₁₀) – the pollutants for which targets are the hardest to meet.
- 6.02 Between 1987 and 2001 the number of cars (Private Light Goods) on the road increased by 49%. This continuing increase in car ownership has led to a fundamental change in the travelling patterns of ordinary households: The Travel Survey of Northern Ireland 1999-2001 reports that 82% of the total distance travelled in Northern Ireland was by car. The car's flexibility and convenience enables more people to travel further, with a corresponding increase in vehicle usage.
- 6.03 Reducing the contribution of road transport emissions is therefore a key part of local air quality management. District council officers dealing with air quality duties will therefore need to liaise fully with Roads Service, Planning Service and public transport operators where the pollution arises from roads and traffic.

National Context

- 6.04 The national policy framework has already led to significant improvements in local air quality policy and will continue to lead to further improvements. Key transport initiatives include: -
- Regulatory measures and standards to reduce vehicle emissions and improve fuels;
 - Tax based and other financial measures that encourage people to supply and use cleaner fuels and also encourage them to buy more environmentally-friendly vehicles; and
 - Aviation and shipping policies and regulations.

Regulatory Measures to cut Vehicle Emissions

- 6.05 The vehicles on our roads are becoming progressively cleaner due to the tighter EURO standards on both vehicles and fuels imposed by the European Union's auto-oil programme, which was set up in partnership with the oil and motor industries. These standards alone helped reduce emissions of PM₁₀ and NO_x from road transport by 50% between 1990 and 2000 and are expected to lead to a further reduction of some [30%] by 2010. The trend of declining emissions is expected to slow down considerably from about 2010 as engine and fuel

improvements are offset by continuing traffic growth (see page 88 of the Air Quality Strategy).

- 6.06 To make sure that vehicles do not produce excessive emissions when in use, new vehicle standards are backed up by emissions tests as part of the MOT. The Driver Vehicle Testing Agency carry out around 1000 vehicle emissions checks each year in addition to their roadworthiness enforcement check programme. To improve emissions performance still further, all new vehicles will be required to be fitted with on board diagnostic systems [from 2005] which will immediately alert the driver to any irregularities in the vehicle's emissions.

Tax-based Measures

6.07 The Government continues to use tax-based measures to reduce vehicle emissions. They include:

- Fuel duty differentials to encourage people to use cleaner fuels, including alternative fuels such as bio diesel, liquefied petroleum gas (LPG), and natural gas.
- Since 1 April 2001, Vehicle Excise Duty (VED) for cars has been graduated according to the level of carbon dioxide (CO₂) emissions, with the least polluting paying less in road tax.
- A similar CO₂-based system for taxing company cars has been in place since April 2002, linking the tax charge on the benefit of a company car to the level of its CO₂ emissions. This is intended to incentivise the purchase of more efficient vehicles.
- In December 2001 the Government implemented a new structure of Vehicle Excise Duty for goods vehicles, reflecting more closely the environmental impacts and road wear that different types of goods vehicle cause. The Reduced Pollution Certificate, under which goods vehicles and buses meeting stringent standards for particulate emissions pay a lower rate of VED, continues in force. Further discounts under both the Company Car Tax and VED regimes are available for alternatively powered vehicles, such as electric, hybrid and LPG/natural gas.

6.08 The majority of these measures have been aimed primarily at tackling emissions of CO₂, one of the major greenhouse gases contributing towards climate change. However, air quality considerations have also been taken into account and it is expected that these changes will also have a beneficial effect on local air quality by encouraging the purchase of cleaner, more efficient vehicles.

Promoting Cleaner Fuels: PowerShift and CleanUp Programmes

6.09 The Department for Transport sponsors the Energy Saving Trust's TransportEnergy programmes PowerShift and CleanUp .

6.10 **PowerShift's** main aim is to develop a sustainable market for gas (LPG and natural gas) and electric vehicles by providing grants towards the additional cost of buying such vehicles or converting existing vehicles. Without PowerShift grants, the

economic case for these cleaner vehicles becomes difficult to make, except for very high mileage fleets.

- 6.11 Under the current system, gas vehicles or conversions only qualify for grants if their emissions performance is better than the equivalent petrol or diesel vehicle. The highest grants go to those that offer the greatest emissions benefits. So in addition to stimulating demand for gas vehicles, PowerShift helps ensure that gas vehicles coming on to the market provide real emissions benefits.
- 6.12 PowerShift is also providing grant support towards the additional cost of hybrid cars which combine a petrol or diesel engine with an electric motor to propel the vehicle. These vehicles can offer substantial fuel economy benefits compared to conventional vehicles, particularly in stop-start traffic in, for example, city centres. Some hybrid vehicles can also operate purely on battery power for limited distances which can have an air quality benefit in more polluted areas.
- 6.13 CleanUp provides grants to support the fitment of pollution reducing equipment such as catalytic converters and particulate traps to existing vehicles, in particular heavy diesel vehicles such as buses, trucks and taxis responsible for significant emissions of particulates and oxides of nitrogen. CleanUp only supports technologies that have demonstrated significant emissions reductions. CleanUp is not currently available in Northern Ireland but may be available in the near future.
- 6.14 Further information on the support available through PowerShift and CleanUp is available at: www.transportenergy.org.uk, or from the telephone helpline on **0845 6021425**.

Aviation White Paper

- 6.15 The White Paper, *A New Deal for Transport: Better for Everyone*, published in July 1998, announced the Government's intention to produce a new UK airports policy that would look 30 years ahead and referred to the need to bring forward new policies on civil aviation. This work will be brought together in a new air transport White Paper, which is due to be published later this year. The White Paper will set out policies on a range of aviation matters, including decisions on what additional airport capacity may be needed to meet demand, and where it should be located.
- 6.16 In July 2002, the Department for Transport issued six consultation documents covering Wales, Scotland, the South West, the Midlands, the North of England, and the South East and East of England, seeking views on a range of air transport issues. A further consultation document covering Northern Ireland was published in August 2002. The consultation documents discuss the likely impacts of growth in air traffic in the various regions of the UK over the next 30 years; identify issues of regional and national importance; and set out key policy choices, including options for airport development at various locations. The deadline for responses to the consultation documents was 30 November 2002, however, that deadline has had to be extended to allow for specific consultation on Gatwick. This has delayed the publication of the air transport White Paper which is now expected to emerge later in 2003.

Emissions from Shipping

- 6.17 Emissions from shipping can be a significant issue for local authorities with major ports. In GB at least one local authority has identified emissions from shipping as contributing to AQAPs within the authority. Also, as emissions from other sources decline, global emissions from shipping are becoming more and more significant, with shipping expected to account for up to 75% of total SO₂ emissions in the EU by 2010.
- 6.18 Currently only marine gas oils used for voyages within the EU are regulated by the sulphur content of liquid fuels Directive 99/32/EC. The maximum limit for these fuels since 1 July 2000 is 0.2 % sulphur, this will be reduced to 0.1 % from 1 January 2008.
- 6.19 Shipping is a global industry; therefore efforts to make a significant reduction in emissions from seagoing ships are most effective when agreed and implemented at an international level. Annex VI to MARPOL 73/78 is an International Maritime Organisation (IMO) agreement which aims to prevent and reduce air pollution from ships. It was adopted in September 1997. The agreement, when it comes into force, will set limits on sulphur oxide (SO_x) and nitrogen oxide (NO_x) emissions from ship exhausts and prohibit deliberate emissions of ozone depleting substances. The agreement will set a global sulphur cap of 4.5 % by mass for all heavy marine bunker fuels and a 1.5 % sulphur content by mass limit for fuels burnt in special "SO_x Emission Control Areas". Alternatively, ships must fit an exhaust gas cleaning system or use any other technological method to limit SO_x emissions in these areas. The Baltic Sea is such a designated area.
- 6.20 The agreement also sets limits on emissions of nitrogen oxides (NO_x) from diesel engines. As NO_x emissions from shipping are primarily caused by engine function the Annex provides a mandatory technical specification for ship engines manufactured from 1 January 2000. To date only five countries have ratified – Sweden, Norway, Singapore, the Bahamas and Malawi, representing approximately 12% of world tonnage. The Annex enters into force internationally one year after it has been ratified by at least 15 countries representing 50% of the gross tonnage of the world's merchant shipping.
- 6.21 The failure of Member States to ratify Annex VI and the potential impact of SO₂ and particulate emissions on local air quality in port areas have caused concern at an EU level. In response a proposal to reduce the sulphur content of all marine fuels used in the Baltic and North Seas, and prohibit the use of high sulphur fuel in port areas is expected from the Commission this summer.

Regional Context - Regional Transportation Strategy for Northern Ireland 2002 – 2012

- 6.22 The Northern Ireland Assembly approved the strategic direction and underlying principles of the Regional Transportation Strategy 2002 – 2012 (RTS) in July 2002. This 10 year strategy, totalling £3500 million presents a clear framework for action

which will facilitate implementation of a range of initiatives aimed at bringing about a stepped change in the quality of transport infrastructure and services.

- 6.23 It must be noted that in relation to the level of public expenditure funding for the RTS, the outcome will be determined through the normal budgetary process. However, the Assembly's approval confirms a level of commitment to providing the sustained investment that is designed to deliver the outcomes set out in the RTS.
- 6.24 Delivery of the RTS will be progressed through the Transport Plans (Belfast Metropolitan Transport Plan, Sub-Regional Transport Plan and Regional Strategic Transportation Network Transport Plan) informed by comprehensive transport studies undertaken in conjunction with the local Development Plans. These transport studies will consider a wide range of transportation measures fashioned to local needs and objectives and agreed through the Development Plans' public consultation processes.

Transport Plans and Air Quality Action Plans (AQAP)

- 6.25 These transport studies will consider air quality impacts in appropriate detail and will support the development of AQAPs as necessary.
- 6.26 In developing an AQAP where vehicular traffic has been shown to be a major pollution source, the AQAP will likely involve the use of one or more transportation measures from the 'toolkit' available to the traffic engineer / transport planner.
- 6.27 The following local 'toolkit' measures generally reduce traffic volumes directly:
- Traffic regulation orders – e.g. restricting vehicular access to particular streets;
 - Traffic calming schemes – e.g. schemes which would dissuade traffic 'rat-running' through residential streets;
 - Reallocation of road space – e.g. reducing carriageway width for general vehicles and reallocating to buses;
 - Pedestrian areas – restricting vehicular access from one or more streets to create a pedestrian only area;
- 6.28 The following local 'toolkit' measures seek to change other traffic characteristics to reduce emissions:
- Parking controls – e.g. removal of parking spaces in order to dissuade traffic from circulating in search of parking spaces;
 - Traffic control systems – e.g. linked signal controlled junctions to reduce traffic queuing at junctions.
- 6.29 The following local 'toolkit' measures seek to encourage a shift to alternative less polluting modes of travel:
- Road user charging and workplace parking levy;
 - Improved facilities for walking;

- Improved facilities for cyclists;
- Safer routes to schools;
- Improved bus services;
- Park and ride.

6.30 In selecting from the local ‘toolkit’ and preparing a detailed design, attention will be needed to ensure that a balance is struck between:

- Localised improvements in air quality in the area of immediate interest;
- Changes in air quality outside the area of immediate interest; and
- The safety and efficiency of the transport networks.

6.31 Further details on each of the **local ‘toolkit’ measures** and some additional possible **other local measures** are given below.

Local Toolkit Measures

Traffic Regulation

- 6.32 Article 4 of the Road Traffic Regulation (NI) Order 1997 gives Roads Service extensive powers to make traffic regulation orders (TROs). TROs can prohibit, restrict or regulate traffic or particular types of vehicle on any part of a road, a single road, or a number of roads and may be in force for a specified time period or permanently.
- 6.33 The Environment (NI) Order 2002 allows the Department for Regional Development to make TROs in pursuit of air quality objectives.
- 6.34 Restrictions should be carefully planned and should be fully and accurately signed, preferably indicating suitable alternative routes to avoid generating congestion and pollution elsewhere on the network.

Traffic Calming

- 6.35 Traffic calming schemes may include a number of separate measures including road humps, central islands, build-outs, chicanes, mini-roundabouts and priority junctions.
- 6.36 The objective of traffic calming schemes is to improve driver behaviour and to control speed to a level in keeping with the surrounding urban street environment. The Department for Regional Development’s programme of traffic calming schemes has been directed mainly at improving safety but can also help to create an environment which encourages walking and cycling by reducing the volume and speed of traffic. Traffic calming schemes may have the effect of slowing vehicles and also deterring traffic from using residential roads as a short cut.

- 6.37 Article 65 of the Roads (NI) Order 1993 gives the Department for Regional Development the power to construct road humps and other traffic calming works. The regulations governing the installation of traffic calming measures are the Traffic Calming Regulations (NI) 1995 and the Roads Humps Regulations (NI) 1999.
- 6.38 It is important that traffic calming schemes are designed in such a way that encourages a smooth driving style that avoids repeated acceleration and deceleration, which may otherwise increase vehicle emissions.

Reallocation of Road Space

- 6.39 Reallocating road space to buses, cycles and pedestrians can make these forms of transport more attractive and may lead to an increase in bus ridership or in the number of trips made by cycle or on foot. The resulting reduction in car use should lower emission levels and lead to an improvement in air quality.
- 6.40 The Department for Regional Development uses TROs under the Road Traffic Regulation (NI) Order 1997 to reallocate road space from cars to buses and cyclists.
- 6.41 It is important that any roadspace reallocation is designed in such a manner so as not to increase congestion and possibly worsen pollution. Certain classifications of taxi have also been given access to bus lanes and consideration is being given to permitting powered two wheeled vehicles to have access on a pilot basis.

Pedestrian / Vehicle Restricted Areas

- 6.42 A pedestrianised area is a street or road where vehicular traffic is excluded (either totally or partially). Restricting vehicular access to town centres, through the use of pedestrianised areas, has been shown to improve the local environment. Pedestrians feel safer moving around and air quality is improved.
- 6.43 The Department for Regional Development has the power under the Road Traffic Regulation (NI) Order 1997 to restrict vehicle access, thereby creating the pedestrianised area. Alternatively, the Department for Regional Development can use its powers under article 100 of the Planning (NI) Order 1991 to create a pedestrian area.
- 6.44 In designating pedestrian areas it is important to maintain accessibility and hence safeguard the economic viability of the area. Consideration must therefore be given to:
- Servicing requirements
 - Public transport arrangements;
 - Peripheral car parking;
 - Facilities for cyclists and pedestrians;
 - Access for taxis, where appropriate;
 - Access for people with limited mobility.

Parking Controls

- 6.45 The ability to prohibit and restrict the waiting of vehicles on a road can be a key tool in controlling the volume of traffic within towns and cities. The availability and cost of parking facilities can influence people choosing to drive to a destination or using a more sustainable mode of transport. In addition, a significant level of traffic in town centres may comprise vehicles circulating in search of parking spaces.
- 6.46 The Road Traffic Regulation Order (NI) 1997 enables the Department for Regional Development to determine where motorists can park and how much it will cost them. However, currently difficulties in enforcing parking regulations limits the effectiveness of parking as a traffic restraint tool.
- 6.47 It is proposed that powers for the enforcement of waiting restrictions will pass from the Police Service of Northern Ireland to the Department for Regional Development, therefore making illegal parking a civil rather than a criminal offence. This move to decriminalise parking enforcement should facilitate much more effective enforcement and strengthen the role of parking as a traffic restraint tool. However it is expected to take several years before the necessary legislation is in place to facilitate the change.

Traffic Control Systems

- 6.48 Traffic control systems using electronic detection and signalling systems can reduce traffic queues and hence vehicle emissions. In particular adaptive traffic control systems, such as SCOOT⁶ and MOVA⁷, at signal controlled junctions respond automatically to changing traffic conditions and give better traffic flows than Urban Traffic Control plans or uncoordinated signal networks.
- 6.49 When traffic congestion causes vehicle emissions to exceed a pre-set threshold SCOOT systems can be programmed to hold queues outside the area. This method may be appropriate if the queue is located where relatively few people are exposed to any increased emissions. Overall journey times may well remain similar, but drivers queue for longer while approaching the area and then make faster progress through it. This is called gating.
- 6.50 The MOVA system has been developed for use at isolated, heavy-loaded traffic signal installations. In congested conditions MOVA can extend the green-times to values much longer than usual, in order to maximise capacity and therefore reduce emissions from stationary vehicles.
- 6.51 The powers given in The Roads (NI) Order 1993 and Traffic Signs Regulations (NI) 1997 allow the Department for Regional Development to improve the road network by installing traffic signals at junctions.

⁶ SCOOT Split Cycle Offset Optimisation Technique

⁷ MOVA Microprocessor-Optimised Vehicle Actuation

Road User Charging and the Workplace Parking Levy

- 6.52 Road User Charging is a demand management measure where drivers are charged a fee when they cross a cordon and enter the city limits. Workplace Parking Levies involve businesses located within city limits being charged a fee for each employee that drives to work and parks all day.
- 6.53 In the face of rising car ownership and congestion, pricing instruments such as road user charging and workplace parking levies are increasingly seen as effective components in an integrated strategy to reduce traffic and raise revenue. The area-wide reduction in traffic may result in a decrease in vehicle emissions and consequently an improvement in air quality.
- 6.54 The Department for Regional Development has undertaken an initial assessment of road user charging and workplace parking levy options for Northern Ireland. Various charging scheme options (including both road user charging and workplace parking levy variants) were considered for Belfast, and workplace parking levies were investigated in other Northern Ireland towns and cities.
- 6.55 The Regional Transportation Strategy for Northern Ireland 2002-2012 (RTS) recognises that, in the short term, Belfast is the only urban area in Northern Ireland, which could potentially be considered for road user charging. Although studies undertaken on the introduction of road user charging suggest that it is technically feasible, the Belfast Metropolitan Transport Plan has not proposed road user charging or workplace parking levies for Belfast in the period to 2015. It is important to note that the introduction of any charging scheme will require new primary legislation.
- 6.56 Within Great Britain the first road user charging schemes have been introduced. Durham County Council introduced a small-scale scheme based around the historic core of the city in October 2002 whilst in London the Mayor's Congestion Charging Scheme was introduced in February 2003. Authorities are considering possible schemes in the light of events in London; thus other major schemes are unlikely for some 4-5 years. The Department for Regional Development continues to monitor developments in the use of road user charging and workplace parking levies in Great Britain and Europe (including the London Congestion Charging Scheme) to contribute to an informed decision on whether proposals should be made for such charges in Northern Ireland.

Walking

- 6.57 Walking is an integral part of all journeys and an essential part of most public transport journeys. Walking is sustainable and environmentally friendly and can provide levels of exercise to suit everyone. It is considered that many short journeys (less than one mile) currently made by car, which result in relatively high vehicle emissions, could realistically be made on foot.
- 6.58 Roads Service recognises that walking can be made safer, easier and more pleasant and should be integrated with other modes of travel, and with health and tourism initiatives. Measures provided by Roads Service include new and widened

footways, crossing facilities, measures to cater for people with disabilities and pedestrian safety improvements. Where required the Department for Regional Development uses powers under the Road Traffic Regulation (NI) Order 1997 and/or the Roads (Northern Ireland) Order 1993 to facilitate the introduction of pedestrian measures.

- 6.59 In April 2000 the Department for Regional Development established the Northern Ireland Walking Forum. The Forum brought together major organisations and bodies having an interest in walking and will publish an Action Plan in 2003.

Cycling

- 6.60 Cycling is a healthy, flexible, inexpensive and sociable means of travel. An increase in the proportion of trips made by cycle would help to improve local air quality, personal health and social well being. It is considered that many current car journeys of less than 3 miles could realistically be made by cycle.
- 6.61 The Northern Ireland Cycling Strategy, published in June 2000, sets targets to increase cycle use. Through the Northern Ireland Cycling Forum, the Department for Regional Development will continue to work with other public and voluntary organisations having an interest in cycling to ensure that all elements of the Strategy are successfully implemented.
- 6.62 Where required the Department for Regional Development uses powers under the Road Traffic Regulation (NI) Order 1997 and/or the Roads (NI) Order 1993 to provide cycling facilities.

Safer Routes to Schools

- 6.63 Safer Routes to Schools projects encourage and enable children to walk, cycle and use public transport to travel to school through a combined package of educational and physical measures. Where required the Department for Regional Development uses its powers under the Road Traffic Regulation (NI) Order 1997 to facilitate the introduction of the physical measures on the highway network.
- 6.64 The benefits of Safer Routes to Schools are widespread and include fewer child casualties and road traffic accidents, safer roads for all (especially pedestrians and cyclists), healthier lifestyles and reduced congestion, resulting in reduced vehicle emissions and improved air quality.
- 6.65 Roads Service established an inter-departmental School Travel Advisory Group in 2000 to co-ordinate the introduction of Safer Routes to Schools schemes. Responsibilities lie with the Department for Regional Development, the Department of the Environment, the Department of Education and the individual schools concerned.

Buses

- 6.66 Buses can transport large numbers of people whilst occupying relatively little

roadspace. Modern buses' rates of emission are significantly low to ensure that the use of bus in preference to car can help improve air quality.

- 6.67 The operation of buses in Northern Ireland is controlled by Translink but responsibility for roadside infrastructure remains with the Department for Regional Development. Translink continually monitor the performance and availability of alternative fuels and have examined the latest technological developments in the use of diesel engines. Translink's current preference is to use low sulphur diesel in conjunction with continuous regeneration trap (CRT) exhaust systems. The CRT system renders bus exhaust emissions smokeless and odourless and gives a better result than that currently available from gas powered vehicles. However, it is anticipated that there is significant potential for the use of bio-diesel and diesel-electric engined buses.
- 6.68 Where appropriate, Roads Service develops schemes to reallocate road space and use traffic signal technology to assist buses to maintain journey times by giving them priority over slow-moving traffic. This will encourage motorists to use buses, reduce congestion and also help cut bus emissions by reducing stop-start driving. To gain maximum benefit from bus lanes it is essential that they are adequately enforced. Responsibility for enforcement currently rests with the Police Service of Northern Ireland.

Park and Ride

- 6.69 There will always be many journeys to city-centre locations, which must commence by car because of the widespread distribution of origins, which cannot be served practically by bus services. However, Park and Ride can be an effective policy to assist in reducing city-centre traffic congestion by intercepting these trips and encouraging people to complete their journey by public transport. Park and Ride schemes should be seen as just one of a number of measures making up an integrated transport policy.
- 6.70 Park and Ride schemes will generally be most successful where:
- They are some distance from the town centre, ideally where radial and orbital routes intersect;
 - The town centre is served by a number of high quality sites on the outskirts, with lighting, staff, information for users and CCTV; and
 - Bus priority measures complement park and ride services, whilst cars are restricted in the town centre.

Other Local Measures

- 6.71 In addition to the above 'toolkit' there are a number of other measures, which could potentially have a role in the preparation of an AQAP. These measures are outlined below.

Low Emission Zones

- 6.72 Low Emission Zones are zones where certain types of vehicles are prohibited from entering towns or cities. A low emission zone would ensure only vehicles meeting minimum emission standards would be allowed to enter pollution hotspots. The main purpose of the zone would be to improve air quality, though it may deliver additional "liveability" and congestion benefits by reducing traffic noise and overall traffic volumes. They may however divert the more polluting vehicles elsewhere.

Home Zone

- 6.73 Home Zones are residential streets in which the roadspace is shared between drivers of motor vehicles and other road users, with the wider needs of residents (including pedestrians, cyclists, and children) in mind. The aim is to change the way that streets are used and to improve the quality of life in residential streets by making them places for people, not just for traffic.

Clear Zones

- 6.74 The Government's Clear Zones initiative is designed to encourage solutions to traffic problems in towns and cities whilst making sure town centres retain their vitality. A Clear Zone seeks to provide a liveable accessible and lively urban centre where traffic congestion, pollution, noise, stress and other negative impacts of mobility are limited or eliminated. In general Clear Zones are implemented by a package of related measures using innovative technologies.

High Occupancy Vehicle Lanes

- 6.75 High Occupancy Vehicle (HOV) lanes are, in principle, a means of using the road network more efficiently and encouraging car sharing. They work on the basis of giving priority to vehicles with more than a pre-determined number of occupants. The introduction of HOV lanes will require new primary legislation.

Rail

- 6.76 Within urban areas, heavy rail and light rapid transit systems are likely to be limited to radial services in the larger conurbations. They may be well suited to serving outlying residential areas, or to substituting for the private car for the final leg of the journey into the town centre through park and ride arrangements. Rail-based park and ride depends on there being enough secure off-street parking at the station. Traffic authorities will also have to consider the capacity of the road network around the station.

Heavy Goods Vehicles (HGVs)

- 6.77 HGVs contribute to road transport emissions and to congestion in some town and district centres. The Department for Regional Development, the Freight Transport Association and others formed a Freight Quality Partnership to produce "Delivering the Goods in Belfast". HGVs are required to meet European standards and their

emissions are regularly tested. Authorities can also encourage local HGV operators to apply for Government grants to retrofit pollution reduction devices. (Possibly needs to be checked with DOE)

Public Health

6.78 The Department for Regional Development is a member of the Northern Ireland Physical Activity Implementation Group (NIPAIG), a group facilitated by the Health Promotion Agency established to oversee the consultation process and development of a Physical Activity Strategy and associated Action Plan. The aim of the Plan is to increase levels of health related physical activity, particularly among those who exercise least.

Powered Two Wheel Vehicles

6.79 Mopeds and motorcycles can provide an alternative means of travel when public transport is limited and where journey length makes walking unrealistic, and they may contribute to a reduction in congestion. While they have some air quality advantages over cars and their engines are small and usually fuel-efficient, their emissions are largely unregulated and the use of catalytic converters is not widespread. There are also concerns about noise and safety.

Workplace Travel Plans

6.80 A Workplace Travel Plan is a general term for a package of measures tailored to the needs of an individual organisation or site and aimed at promoting more sustainable, cleaner travel choices and reducing reliance on the car. It involves the development of a set of mechanisms, initiatives and targets that together can assist an organisation reduce the impact of travel and transport on the environment.

Speed Limits

6.81 The Road Traffic Regulation (NI) Order 1997 enables the Department for Regional Development to set speed limits on roads or for particular classes of vehicle. The speed limits are set in conjunction with the Police Service of Northern Ireland, who are responsible for enforcement. Whilst the reduction of speed limits in urban areas may improve road safety and reduce severance impacts, it is not clear that improvements in air quality will result.

Airports

6.82 All operators of airports in England and Wales with 1,000 or more scheduled and charter passenger air transport movements a year are responsible for setting up Airport Transport Forums (ATFs), whose objective is to improve public transport access to airports. They are also responsible for preparing airport surface access strategies (ASAS), which feed into the Local Transport Plan. ASAS should include challenging short and long-term targets for increasing the proportion of journeys made to airports by public transport; strategies to achieve these targets; and a system to oversee implementation of the strategy. ATFs should include

representatives from local authorities, transport operators, local people and other interested parties.

Partnerships between Businesses and District Councils

6.83 Partnerships with other Departments, District Councils and private sector organisations are beneficial to the Department for Regional Development when monitoring the effects of transportation measures and the level of service provided. Where possible the impact of transportation measures should be reduced to improve air quality and the environment.

Chapter 7

Air Quality and Land Use Planning

- 7.01 The land use planning system can positively contribute to the improvement of Air Quality and therefore help to secure the air quality objectives set out in the Environment (Northern Ireland) Order
- 7.02 Planning Control can contribute to the realisation of air quality objectives through consideration of the location of development which may give rise to pollution, and by ensuring that other developments are, as far as possible, not affected by major existing, or potential future, sources of pollution;

The Relationship between the Planning and Pollution Control Regimes

- 7.03 The planning and pollution control systems are separate but complimentary systems of control and regulation designed to protect the environment from harm as a result of development and related operations.
- 7.04 Planning control focuses primarily on the acceptability of the use of the land for the particular development, rather than the control of the processes or substances involved; and the regulation of the location of development in order to avoid or minimise adverse effects on people, the use of land and the environment.
- 7.05 The pollution control regime is concerned with the control and regulation of proposed operations and processes and their day to day operation. The objective is to ensure that operations can be carried out without endangering human health or causing harm to the environment.
- 7.06 Planning control, however, should not be used to duplicate other statutory controls or be used to achieve objectives relating to other legislation. Planning decisions will therefore be made on the basis that the pollution control regimes will be properly applied and enforced. The relevant expertise and statutory responsibility for pollution control rests with the relevant pollution control authorities.
- 7.07 Nevertheless the dividing line between each system of control is not always clear cut. Planning control is not an appropriate means of regulating the detailed characteristics of potentially polluting activities, while matters relevant to pollution control authorisation may be material planning considerations.
- 7.08 Close consultation is essential to a proper understanding of the scope and requirements of the two regimes. Decisions based on adequate information can minimise costly delays in the decision making process. The Department will continue to work closely with pollution control authorities and take their advice into account when developing policy, in decision taking and in avoiding duplication between the planning and pollution control systems.

Planning Policy and Development Plans

7.09 The following are some of the issues that may be considered in the preparation of Planning Policy Statements and Development Plans and may also be material in the consideration of individual planning applications:-

- ensuring that the land use planning system makes an appropriate contribution to the achievement of national air quality objectives;
- on the appropriate location for new development, including reducing the need to travel and promoting public transport;
- the need to identify land, or establish criteria, for the location of potentially polluting developments and the availability of alternative sites;
- the need to separate potentially polluting and other land uses to reduce conflicts, for example, by identifying, where necessary, areas around existing sources of pollution, including roads, in which other developments should be carefully considered;
- existing, and likely future air quality in an area, including any Air Quality Management Areas (AQMA) or other areas where air quality is likely to be relatively poor. The findings of air quality reviews and assessments will be important in the consideration of local air pollution problems and the siting of certain types of proposals

Air Quality as a Material Consideration

7.10 Any air quality consideration is capable of being a material planning consideration in so far as it affects land use. Whether it actually is and how much weight should be attached to it will depend upon the facts of each individual case⁸.

7.11 Wherever a proposed development is likely to have significant air quality impacts, close co-operation between Planning Service and those with responsibilities for air quality and pollution control will be essential. The impact on ambient air quality is likely to be particularly important:-

- where the development is proposed inside, or adjacent to, an AQMA;
- where the development could in itself result in the designation of an AQMA;
- where the development, including associated traffic, is likely to result in the deterioration of local air quality; or
- where to grant planning permission would conflict with, or render unworkable, elements of an air quality action plan.

7.12 It is not the case that all planning applications for developments inside or adjacent to AQMAs should be refused if the developments result in a deterioration of local air quality. Such an approach could sterilise development, particularly where

⁸ Over the last three years this has been tested through the English courts with regard to the location of residential developments near to major roads,

authorities have designated their entire areas as AQMAs.

- 7.13 Planning Service may be faced with numerous individual, small planning applications which separately might not be considered to have a significant impact on air quality but which cumulatively would have a significant impact. Each planning application should be determined on its individual merits and having regard to the development plan as a material consideration. In practice, this should mean that individual small-scale applications continue to receive approval until such time as one reaches the unacceptable mark.
- 7.14 All planning applications should be supported by such information as is necessary to allow a full consideration of the impact of the proposal on the air quality of the area. Circumstances might arise within an AQMA where in order to allow development to proceed the developer may bring forward measures to offset any increase in local pollutant emissions as a consequence of the proposed development, such as funding of better public transport links, or the purchase of monitoring equipment.
- 7.15 In considering whether a site inside an AQMA is an appropriate location for new housing development, Planning Service will seek advice from the local Environmental Health Officer and consider where, within the AQMA likely exceedences have been identified and by how great a margin the air quality objectives are currently exceeded, as well as when they are forecast to be achieved. It may be that in some cases, housing development might best be delayed until the relevant air quality objectives have been achieved or the layout modified to avoid the area of the exceedence. The Planning Service will in the course of determining the outcome on any such scheme put before them consider what weight to give such exceedences as a material consideration.

Environmental Impact Assessment and Strategic Environmental Assessment

- 7.16 Environmental Impact Assessment (EIA) is an important procedure for ensuring that the likely significant environmental effects (both direct and indirect) of a proposed development are fully understood and taken into account before development is allowed to go ahead. The types of development for which EIA may be required are listed in the Town and Country Planning (NI) (Environmental Impact Assessment) Regulations 1999.
- 7.17 These Regulations require the developer of any project which is subject to EIA to prepare an environmental statement describing the likely environmental effects of the project. Planning Service has to take account of this information before deciding the application for planning permission. The information to be included in the environmental statement is described in Schedule 4 to the Regulations. It must include a description of the development, the likely significant environmental effects (including air quality before and after the proposed development), mitigating measures envisaged, an outline of the main alternatives studied by the applicant and the reasons for his/her choice, and a non-technical summary.

- 7.18 DCAN 10 Environmental Impact Assessment August 1999(revised) provides guidance on the procedures to be followed
- 7.19 Directive 2001/42/EC "Strategic Environment Assessment" or SEA Directive, which comes into effect in July 2004, may be relevant to air quality management. Broadly speaking the Directive will require a formal assessment of certain plans and programmes which are likely to have significant impacts on the environment. The Directive will apply to programmes which:-
- Set the framework (in a broad sense) for future development consent of projects listed in the EIA Directive;
 - Set the framework for future development consent of projects other than those in the EIA Directive which might cause the plan as a whole to have significant environmental effects;
 - Have any effects on Natura 2000 sites which might make them subject to the Habitats Directive
- 7.20 There will however be provisions for exempting some plans and programmes which are concerned with small areas at local level, or which are minor modifications, where these are determined not to have significant environmental effects.
- 7.21 The SEA Directive also requires monitoring the environmental effects of implementing plans and programmes which have been assessed.

Summary

- 7.22 This chapter is intended to serve only as a summary of some of the main ways in which land use planning can help deliver air quality objectives.
- 7.23 The planning system does not however offer any quick-fix solutions to areas of poor air quality, but it can do much to improve local air quality in the longer term through the development plan and development control processes in that :-
- any air quality consideration that relates to land use and its development is capable of being a material consideration
 - the planning system has a role to play in determining the location of development which may give rise to pollution and in ensuring that other developments are, as far as possible not affected by major existing or potential sources of pollution.
- 7.24 The Royal Town Planning Institute (RTPI) published a good practice guide on air quality and land use planning in April 1999. This sets out in general terms the relationship between air quality issues and planning decisions. It also tries to establish how far the planning process itself can contribute to air quality objectives.

Copies of the guide can be ordered from the RTPI, 41 Botolph Lane, London EC3R 8DL (telephone: 0207 636 9107).

Appendix A

POWERS OF ENTRY

Article 19 of the Environment Order (NI) 2002 makes provision for an authorised officer to enter any premises used for residential purposes. In addition to this Schedule 3 of the Order sets out supplemental provisions with respect to powers of entry, i.e., the issue of warrants, information obtained to be admissible in evidence, duty to secure premises and compensation. These provisions are similar to those in other existing environmental legislation, and are necessary in order to carry out the required air quality functions under Part III of the Order.

The Department in conjunction with the Human Rights Commission endorses the principles and best practices, set out in the Enforcement Concordat issued by the Cabinet Office in 1998, on the Principles of Good Enforcement Policy and Procedures. A summary has been set out below for use by district councils and authorised officers of the Department.

Standards

- The primary function of central and local government enforcement work is to protect the public, the environment and groups such as consumers and workers. At the same time, carrying out enforcement functions in an equitable, practical and consistent manner.
- In consultation with business and other relevant interested parties including technical experts, where appropriate, clear standards should be drawn up setting out the level of service and performance the public and business can expect to receive.

Openness

- Information and advice should be provided in plain language on the rules that apply and disseminated as widely as possible. To be open in about how you set about your work, discussing general issues specific compliance failures or problems with anyone experiencing difficulties.

Helpfulness

- Staff should provide a courteous and efficient service and identify themselves by name. There should be a contact point and telephone number for further dealings.

Complaints about Service

- A well publicised, effective and timely complaints procedure should be provided.

Advice from an officer should be put clearly and simply and should be confirmed in writing, on request, explaining why any remedial work is necessary and over what timescale, and making sure that legal requirements are clearly distinguished from best practice advice. Before formal enforcement action is taken officers should provide an opportunity to discuss the circumstances of the case and if possible resolve points of difference, unless immediate action is required (for example in the interests of health and safety or environmental protection or to prevent evidence being destroyed).

Where immediate action is considered necessary, an explanation of why such action was required should be given at the time and confirmed in writing in most cases within 5 working days and, in all cases, within 10 working days. Where there are rights of appeal against formal action, advice on the appeal mechanism should be clearly set out in writing at the time the action is taken (whenever possible this advice should be issued with any enforcement notice).

Appendix B

Example of an AQMA Order

Environment (Northern Ireland) Order 2002 Part III Article 12(1)

[Name of Council]
AQMA Order

[Name of Council], in exercise of the powers conferred upon it by Article 12 (1) of the Environment (Northern Ireland) Order 2002, hereby makes the following Order.

This Order may be cited/referred to as the [name of Council] Air Quality Management Area [No1, 2,3 if more than one is being designated] and shall come into effect on [date]

The area shown on the attached map in red is to be designated as an air quality management area (the designated area). The designated area incorporates [the whole borough of said Council] or [name of street/trunk road] or [stretch of road between junction X and junction Y]. The map may be viewed at the Council Offices

This Area is designated in relation to a likely breach of the nitrogen dioxide (annual mean) objective as specified in the Air Quality Regulations (Northern Ireland) 2003

This Order shall remain in force until it is varied or revoked by a subsequent order.

The Common Seal of [Name of Council}
was hereto affixed on [date] and signed in the presence of /on behalf
of said Council

.....

Appendix C

Recommended format of action plan progress report

Action Plan Measure	Original Timescale	On Target?	Comments
e.g. Publicity Campaign on walking/cycling	August 2002	Introduced on time and due to run for 6 months	Leaflets available in all public places. Exhibition stands in main shopping centres. Campaign linked to work with schools/universities on sustainable travel
e.g. Park and Ride Scheme (state which area in the borough)	To be fully implemented by June 2003	Yes	Scheme is being taken forward with support from Roads Service

Appendix D

Relevant Contact Addresses

District councils should send all correspondence (review and assessment reports, AQMA orders, etc) to:

Air and Environmental Quality Unit
Environment and Heritage Service
Commonwealth House
35 Castle Street
Belfast BT1 1GU

Should you require a copy of this document in a more accessible form, the following formats are available on request: large print, disc, Braille and audiocassette. The document may be available on request in minority ethnic languages to those who are not proficient in English.