



A Review & Assessment
Of
AIR QUALITY
In
CAMBRIDGESHIRE
Stage 3

Consultation Response Report
Spring 2001

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

CONTENTS

	Page
1 Consultation Process	1
2 Responses from Statutory Consultees	2
3 Questionnaire - Overall Analysis of Common Questions	3
4 Conclusions - The Way Forward	9

Appendices

A DETR response to Stage 3 Report and district response letters	
i) DETR letter	11
ii) Cambridge City Response to DETR	25
iii) East Cambridgeshire Response to DETR	27
iv) DETR reply to East Cambridgeshire	29
v) Fenland Response to DETR	31
vi) DETR reply to Fenland	33
vii) Huntingdonshire Response to DETR	35
viii) South Cambridgeshire Response to DETR	37
ix) DETR reply to South Cambridgeshire	39
B Cambridge City analysis	41
C East Cambridgeshire analysis	45
D Fenland analysis	49
E Huntingdonshire analysis	51
F South Cambridgeshire analysis	53

1. CONSULTATION PROCESS

The Environment Act 1995 requires local authorities to review and assess their local air quality periodically, which is the first step in a process known as Local Air Quality Management. The Act also provides the statutory basis for consultation, which has to be undertaken with specified bodies including the Secretary of State, Environment Agency, highway authority, contiguous local authorities, and representatives of industry in the area and “any others as considered appropriate by the authority” e.g. members of the public.

A Review and Assessment of air quality in Cambridgeshire began in 1997 with the formation of a partnership group consisting of the five District Councils and the County Council. A report covering the results of the first two stages of Review and Assessment was produced in December 1998 and results of consultation on that report were taken into account during Stage 3 of the process.

Stage 3 of Review and Assessment was completed in June 2000 with production of a full **technical report**. This comprehensive countywide report was distributed to all statutory consultees and made available for inspection at local libraries and local authority offices. The partnership authorities also produced a **non-technical summary** that highlighted the main findings of the report. This had a much wider circulation which included parish councils, local councillors, environmental groups and businesses with greater than 100 employees.

Consultation on the results of Stage 3 was undertaken during September and October 2000. In order to make this a more **participative exercise** each district produced a **questionnaire leaflet**. This provided general information and results specific to the district plus a number of common questions and, where desired, supplementary questions relevant only to that district. Respondents submitting completed questionnaires were given the option of entering into a draw for a mountain bike.

A **display trailer** visited every local authority area in the county in order to help publicise the Stage 3 results and encourage people to participate in the consultation. Each district, prior to the trailer visiting their area, made **press releases** to advertise dates and times of where the trailer would visit. In addition to the press releases, Cambridge City, East Cambridgeshire and South Cambridgeshire Councils publicised the consultation through an article in the local press. A limited version of the questionnaire was published with this.

Cambridge City and South Cambridgeshire District Council undertook additional consultation by holding a **public meeting**. Fenland District Council undertook to distribute its questionnaire leaflet to every household in their locality.

This document summarises the results of the consultation.

2. RESPONSES FROM STATUTORY CONSULTTEES

The level of response from the statutory consultees was disappointing, with a total of 11 written responses, four of which were acknowledgements of receipt without comment. The remaining seven responses are summarised below.

The **Department of Environment, Transport and the Regions (DETR)** sent a standard response together with comments by the DETR's consultants regarding specific items for each district. Appendix A contains the letter from DETR together with the responses made by each local authority.

Cambridgeshire County Council offered their continuing support to improving air quality through partnership working and commented that monitoring for transport related pollutants should continue and be enhanced in order to verify model predictions. They view the information as being very important to developing sustainable transport and land use plans, and pointed out that additional monitoring equipment for nitrogen dioxide and fine particles (PM₁₀) would be possible through monies secured through the Local Transport Plan.

Cambridgeshire Health Authority also offered their continuing support. They commented that the findings of the Stage 3 consultation document confirm that 'the risk to the health of the population from air pollution is minimal' in Cambridgeshire.

The **Environment Agency** was glad to have been of assistance in providing data of regulated processes and noted that 'no Agency regulated processes are expected to be the cause of exceedences of objectives by the relevant due dates'. They would also like to be kept informed of further relevant monitoring and review work undertaken by the Cambridgeshire authorities.

Of the contiguous local authorities consulted only **Bedford Borough Council** responded. Letters were received from their Department of Environment and Community Services and Department of Planning. Both were concerned with the cross boundary issue of the A1 and A1(M) and that similar methodology should be used for their review and assessment.

English Nature responded with a detailed letter expressing that their main concerns lie in the acidification effects of sulphur dioxide (SO₂) and nitrogen oxides (NO_x) and the fertilisation effects of NO_x. English Nature are responsible for over 100 statutory Sites of Special Scientific Interest (SSSI) in Cambridgeshire and are looking for careful consideration of planning applications in terms of their potential to affect these statutory sites. They also pointed out the harmful effects of ground level ozone on vegetation, caused by the photochemical oxidation of NO_x and volatile organic compounds. They made reference to the European Directive (99/30) which sets limits for SO₂ and NO_x for the protection of ecosystems and the Habitat and Species Directive, pointing out that in certain situations tighter standards may be required (e.g. for Special Areas of Conservation and SSSI's). However, assessment against these limits does not form part of Local Air Quality Management.

Acknowledgements of receipt without comment were received from two **Members of Parliament** and the **Countryside Agency**. Huntingdonshire **Friends of the Earth** returned the documentation, as there is no longer a local group in the area.

3. QUESTIONNAIRE - OVERALL ANALYSIS OF COMMON QUESTIONS

This section provides overall analysis of the core questions asked by all five authorities. A further question regarding development of air quality strategies was asked by four of the five authorities (Cambridge City, Fenland, Huntingdonshire and South Cambridgeshire). Each authority then asked supplementary questions if it so wished. Detailed analysis of all questions asked by each district can be found in Appendices B - F.

A total of 869 questionnaires were returned as follows for each local authority. There is no explanation for the extremely low response rate in Huntingdonshire, except that non-statutory consultation may not have been as extensive as in the other local authorities.

Cambridge City (CCC)	231
East Cambridgeshire District Council (ECDC)	200
Fenland District Council (FDC)	228
Huntingdonshire District Council (HDC)	25
South Cambridgeshire District Council (SCDC)	185
Total	869

Age analysis

Respondents were invited to identify their age group. The response rate from the under 25 age group was low. The 40 - 60 age group was the most represented. This was generally as expected, indicating that older age groups tend to be more concerned about air quality.

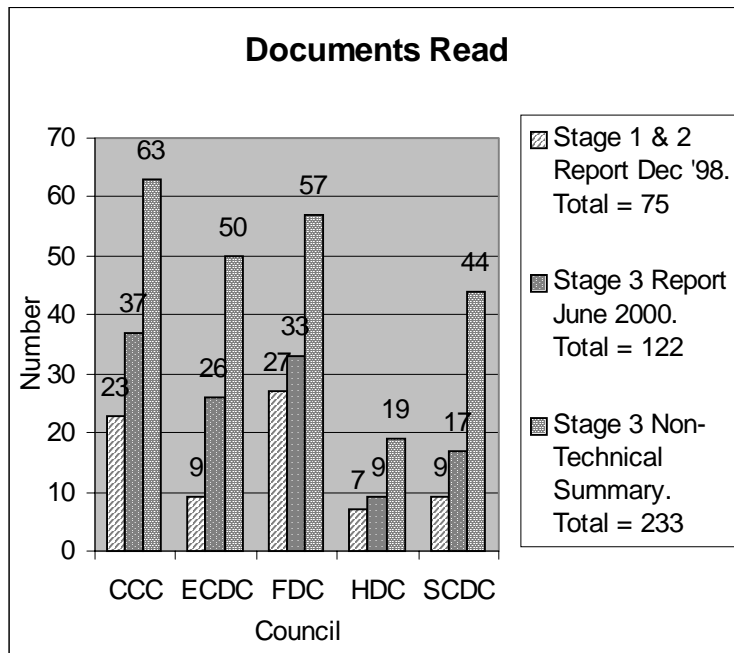
1 Which of the following list of documents have you read regarding air quality?

The list included the two technical reports produced in 1998 and 2000, and the non-technical summary but not the questionnaire leaflet. This may well have been the only information source read by many and explains why not all respondents answered this question.

Analysis of those that did respond indicates that the non-technical summary proved to be the most popular document read in all districts. This was produced as a result of the consultation exercise carried out for Stages 1 and 2 of the Review and Assessment which highlighted the need for summary of the major aspects and findings in a concise format.

Although it was possible for respondents to have read more than one document, this number was low.

Air Quality Review and Assessment
 Results of Consultation for Stage 3 Report
 3. Questionnaire - Overall Analysis of Common Questions



2 Where did you see the information?

The most popular means for seeing the information were either at the road-shows or in the press. However, the wording of this question may have confused respondents and probably explains why there was a high “no response” rate. Respondents were given the option of ticking “attended exhibition” but did not equate this with visiting the road-show where questionnaire leaflets were handed out. These road-shows proved to be a good way to raise awareness and distribute information and were generally more popular in the larger cities e.g. Cambridge, Ely than rural villages.

Although the response rate to articles published by Cambridge City, East Cambridgeshire and South Cambridgeshire Councils in the press was low, the information provided would have been seen by a wider audience and helped to raise awareness of air quality issues. Fenland District Council undertook to distribute the questionnaire free with local papers.

Respondents also inspected information at Council offices and libraries.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report
3. Questionnaire - Overall Analysis of Common Questions

3 Did the material you read provide you with adequate information?

Although there was a high “no response” rate to this question, a high percentage of those that did respond indicated that the information they had read gave them sufficient details. Reasons given for responding negatively included lack of detail about effects of specific pollutants and empirical data, and information being too vague.

<i>Council</i>	<i>Yes</i>	<i>No</i>	<i>Not answered</i>
CCC	69	22	140
ECDC	120	28	52
FDC	103	30	95
HDC	22	1	2
SCDC	50	10	125
Total	364	91	414

4 How concerned are you about air quality?

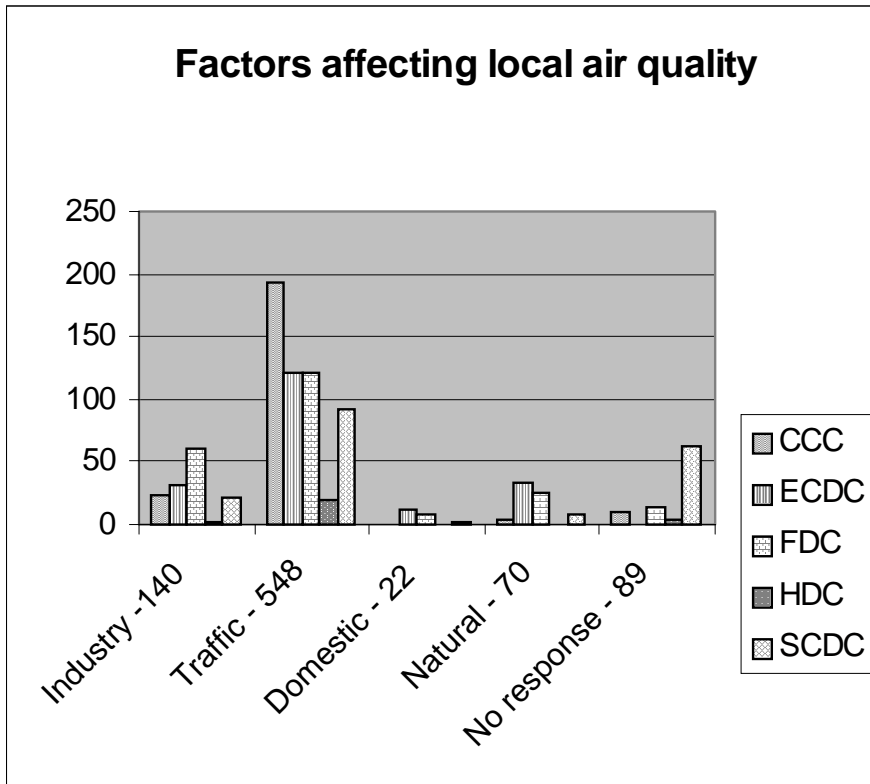
The table below indicates that air quality is of concern throughout the County with the majority of respondents indicating that they are very or extremely concerned. Impact on health and asthma were the main reasons given for concern.

<i>Council</i>	<i>Extremely</i>	<i>Very</i>	<i>Moderately</i>	<i>Not very</i>	<i>Not at all</i>	<i>No response</i>
CCC	85	83	50	11	1	1
ECDC	56	61	67	12	2	2
FDC	72	90	46	9	6	5
HDC	9	4	8	2	2	0
SCDC	35	55	28	11	2	54
Total	257	293	199	45	13	62

5 What do you think is the most important factor affecting your local air quality?

In all districts traffic was considered to be the most important factor affecting air quality. Industry was considered the next most important factor in all districts except East Cambridgeshire where natural causes such as dust were considered to be the second most important cause. In Fenland, industry was considered to be an important factor, which is likely to be in recognition of the problem with combustion products in Wisbech. Other factors mentioned which are considered to affect air quality include bonfires and the straw-burning power station at Sutton in East Cambridgeshire.

Air Quality Review and Assessment
 Results of Consultation for Stage 3 Report
 3. Questionnaire - Overall Analysis of Common Questions



6 How confident are you in computer model predictions for future years?

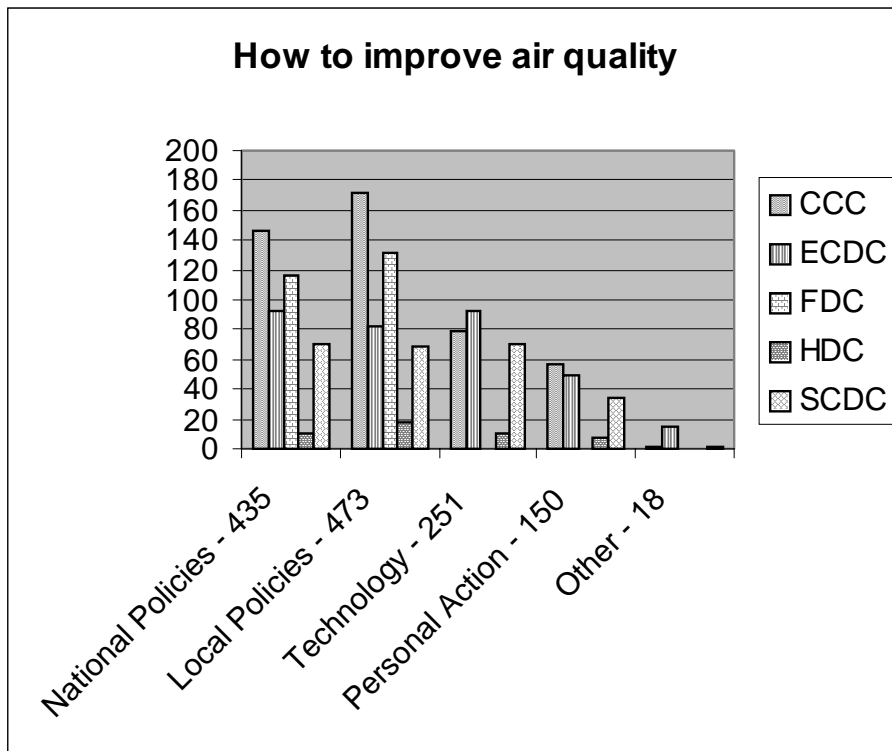
It would appear that the one area of the Review and Assessment work that was not widely understood was the computer modelling and confidence in this is poor. Most respondents indicated that they did not know whether they were confident in the results obtained from computer model predictions and in all districts, apart from Huntingdonshire, there were more who were not confident than were confident. This indicates the need for easily interpretable information to create a better understanding of the subject.

7 How do you see air quality improving?

This question allowed respondents to choose more than one answer. However, In Fenland choice was limited to national or local policies.

Respondents across the County saw their air quality improving by a combination of local and national policy measures and in four of the five districts, technological advances were thought to also play an equal role. Interestingly, personal action was not thought to be an important factor in effecting a change in local air quality.

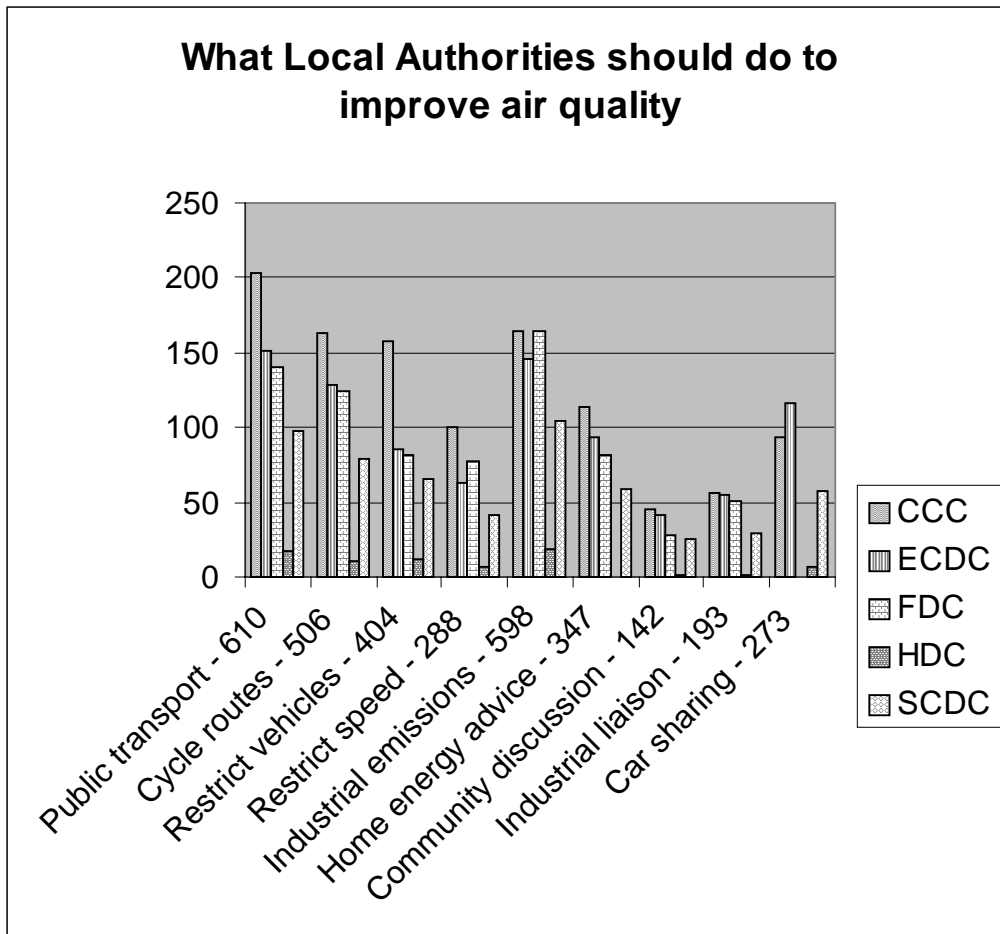
Air Quality Review and Assessment
Results of Consultation for Stage 3 Report



8 What do you think local authorities should do to improve air quality?

Respondents were invited to choose from a range of air quality improvement measures and there were a variety of responses. Overall the suggested actions were ranked as improving public transport, controlling industrial emissions, creating cycle routes, restricting vehicle use in certain areas of poor air quality, providing advice on home energy efficiency measures, reducing vehicle speeds, promoting car sharing and facilitating liaison groups between industry and community groups. However, a local authority on its own cannot achieve these improvements and joint working with the Highways Agency, Environment Agency, businesses and communities will be necessary to achieve success.

Air Quality Review and Assessment
 Results of Consultation for Stage 3 Report
 3. Questionnaire - Overall Analysis of Common Questions



Do you think your local authorities should develop an Air Quality Strategy?

Of the four authorities that asked if a Local Air Quality Strategy should be developed for the area, the majority of responses indicated that development of such a strategy is supported.

4. CONCLUSIONS - THE WAY FORWARD

Consultation on Stage 3 of the Review and Assessment process has been successfully completed and has provided useful pointers for the way forward for each district. It has allowed expression of a wide range of views and confirmed that air quality is a concern throughout the county. The information will be used to take forward the development of Local Air Quality Strategies and will aid policy decisions and formulation.

Cambridge City

Cambridge City Council has found the consultation exercise useful. It intends to use the data and take public views into account during its formulation of a Local Air Quality Strategy. Further consultation will be undertaken once the draft strategy has been prepared. The Council particularly notes the public's concern regarding the reliability of prediction modelling for air quality and has made arrangements, in particular with the County Council, to increase monitoring to improve our predictions when the next Review and Assessment is undertaken in 2003.

East Cambridgeshire

After the successful completion of the Stage 3 review and assessment and the subsequent consultation exercise East Cambridgeshire will now be devising an Air Quality Strategy. The production of an Air Quality Strategy was highlighted during the Local Agenda 21 consultation and the feedback at the air quality road shows confirmed that this was the route the public wished to pursue. The strategy will seek to maintain current air quality standards and where possible to improve the situation and will be in place before the next review and assessment in 2003.

Fenland

Fenland District Council has responded to DETR's comments by declaring 2 Air Quality Management Areas (AQMA) in Wisbech. The Council is continuing to work with the boiler plant operator responsible for emissions of sulphur dioxide (SO₂) and fine particles (PM₁₀) with the intention of agreeing measures to reduce levels so that national air quality objectives can be achieved. Emissions' monitoring is to be carried out and monitoring of ambient levels of SO₂ and PM₁₀ in Wisbech will continue. Further mathematical modelling is being undertaken. ²Unless the AQMA are revoked, the Council will prepare an Action Plan within 12 months of declaration of the AQMA in pursuit of achieving the national objectives. The Council will consider the need for a Local Air Quality Strategy in the light of consultation responses.

Huntingdonshire

Huntingdonshire District Council has completed a review and assessment of air quality in the district in accordance with national air quality guidance. The Council wishes to ensure a good quality of life for its residents and has produced a community plan setting out how it intends to address some of the social, economic and environmental issues in the district. This includes a target of developing a Local Air Quality Strategy by 2003.

South Cambridgeshire

The consultation process confirmed the view that air quality is an important issue with direct links to health and that there is a need to control traffic growth and industrial emissions to ensure that air quality objectives are not put at risk. A high percentage of respondents felt that an Air Quality Strategy should be developed. This is one way to define the method of over-viewing air quality and to establish strong interactive links with the development control and transport policy processes. It is the intention of South Cambridgeshire District Council to produce an Air Quality Strategy that supports our corporate aim of environmental protection.

Over the next year it is the intention to continue with our current monitoring programme which includes 12 sites measuring nitrogen dioxide by the diffusion tube method, 1 site measuring particles by the gravimetric method, 2 sites measuring sulphur dioxide continuously and 1 site at which particles and nitrogen dioxide are measured continuously. The monitoring network will be extended to include a further site measuring sulphur dioxide and a mobile unit measuring nitrogen oxides and particles as part of the Cambridgeshire Transport Strategy and Local Traffic Management Plan. The monitoring programme is a dynamic on-going project which aims to enhance knowledge of local air quality as well as to measure air quality in those areas which must be continuously reviewed to ensure that the air quality objectives are achieved.

APPENDICES

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report



APPENDIX Ai

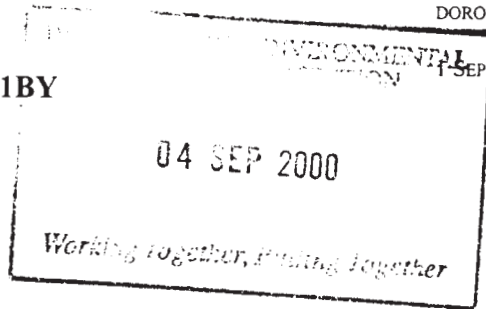
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Dear Mr Anderson

LOCAL AIR QUALITY REVIEW AND ASSESSMENT REPORT

Thank you for consulting the Secretary of State for the Environment, Transport and the Regions on your Stage 3 review and assessment report for Cambridgeshire District Councils. Please find comments, on your reports as attached. Where the comments indicate that your approach and/or conclusions have not been accepted for one or more pollutants, you should take the following action:

- (1) if you are intending to proceed to subsequent stages of the review and assessment process, you should take account of the comments when submitting further reports;
- (2) where your report indicated that you did not intend to proceed any further, but this conclusion is not accepted in respect of one or more pollutants, you should consider carefully the points made and send us a written explanation to justify your approach and the decisions you have taken. This will be particularly important where an authority's decision not to designate an AQMA is not accepted on the evidence provided.

If you have any specific queries about these comments, or you would appreciate further advice on the application of the Pollutant Specific Guidance, please contact the help desk funded by the Department and operated by Air Quality Consultants and the University of the West of England. Details of the help desk are enclosed.

Yours sincerely

DOROTHY DICKSON
On behalf of the Secretary of State for the Environment, Transport and the Regions

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Ref: RA3-475

Review & Assessment Appraisal Report

Report Prepared by: **Cambridge City Council**

Date Review & Assessment Report Issued: **17 July 2000**

The Report covers Stage 3 of the Review & Assessment required under the Environment Act 1995 and subsequent Regulations.

It covers nitrogen dioxide, PM₁₀ and sulphur dioxide, and concludes that no air quality management areas will be required for any of the regulated pollutants.

The approach to the Stage 3 Review & Assessment and the conclusions reached are accepted for all pollutants.

Ref: RA3-475

Commentary

The report provides most of the information specified in the Guidance.

There are a number of specific items to draw to the local authority's attention:

1. No details of QA/QC for monitoring data are provided.
2. No use appears to be made of the diffusion tube results. For instance, do they support the choice of worst case locations for the modelling?
3. It is not clear how large an area was covered by the model, including area sources.
4. The approach to background sources is not ideal. There may be significant traffic sources not included by relying just on the traffic on the 77 links. This may account for some of the underestimation by the model.
5. There is no allowance for the urban background contribution to PM₁₀ (in addition to the regional background) for use with the DMRB modelling. This may account for the apparent under-prediction
6. The monitoring data would suggest that the DMRB has underestimated concentrations. There are locations with higher predicted concentrations than Parker Street, thus there is a risk that the objective might currently be exceeded at these locations. This should be recognised.
7. The case for not declaring air quality management areas appears marginal. Careful attention will need to be paid to all three pollutants during future Reviews and Assessments.

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority in carrying out further Review & Assessment work.

Issues can be followed up through the Review and Assessment helpdesk as follows:

Help desk telephone: 0117 344 3668
Help desk email: aqm-review@uwe.ac.uk
Web site: www.uwe.ac.uk/aqm/review

Ref: RA3-475

Review & Assessment Appraisal Report

Report Prepared by: **East Cambridgeshire District Council**

Date Review & Assessment Report Issued: **17 July 2000**

The Report covers Stage 3 of the Review & Assessment required under the Environment Act 1995 and subsequent Regulations.

It covers nitrogen dioxide, PM₁₀ and sulphur dioxide, and concludes that no air quality management areas will be required for any of the regulated pollutants.

The approach to the Stage 3 Review & Assessment and the conclusions reached are accepted for all pollutants.

Ref: RA3-475

Commentary

The report provides most of the information specified in the Guidance. The decision is accepted on the balance of probabilities, as the evidence is not very detailed in places.

There are a number of specific items to draw to the local authority's attention:

1. There is no information on the QA/QC for the diffusion tubes, in particular whether there is any evidence for bias.
2. At face value, the diffusion tube concentration of $\sim 50 \mu\text{g}/\text{m}^3$ in 1999 at Fordham could indicate an exceedance in 2005, using the adjustment factors in Box 6.4 in Guidance TG4(00). Further attention should be given to this location. It is not clear whether there is relevant exposure. (see also comment on QA/QC).
3. The diffusion tube data are difficult to interpret without details of the type of monitoring site, kerbside, roadside etc, and whether they reflect relevant exposure.
4. No details are provided on the traffic speeds assumed in the modelling.
5. The model results table says corrected for validation. It is not clear what adjustments have been carried out.
6. The impact of point sources is more significant for short-term peaks. For PM_{10} , only the annual mean has been modelled. The impact on 24-hour concentrations should be considered.

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority in carrying out further Review & Assessment work.

Issues can be followed up through the Review and Assessment helpdesk as follows:

Help desk telephone: 0117 344 3668
Help desk email: aqm-review@uwe.ac.uk
Web site: www.uwe.ac.uk/aqm/review

Ref: RA3-475

Review & Assessment Appraisal Report

Report Prepared by: **Fenland District Council**

Date Review & Assessment Report Issued: **17 July 2000**

The Report covers Stage 3 of the Review & Assessment required under the Environment Act 1995 and subsequent Regulations.

It covers nitrogen dioxide, PM₁₀ and sulphur dioxide, and concludes that no air quality management areas will be required for any of the regulated pollutants.

The approach to the Stage 3 Review & Assessment and the conclusions reached are not accepted for all three pollutants.

Nitrogen dioxide from the point source in Wisbech has not been adequately assessed.

PM₁₀ and sulphur dioxide are predicted to exceed the objectives in 2004 and 2005 respectively in Wisbech. This requires an air quality management area to be designated. It is understood that the operator is considering replacement of the boilers that are causing the exceedance. Once this becomes a firm commitment, then the authority can revoke the air quality management area.

Ref: RA3-475

Commentary

The report provides most of the information specified in the Guidance.

There are a number of specific items to draw to the local authority's attention:

1. There is no information on the QA/QC for the diffusion tubes, in particular whether there is any evidence for bias.
2. At face value, the diffusion tube concentrations of $\sim 50 \mu\text{g}/\text{m}^3$ in 1999 at Wisbech Mobil could indicate an exceedance in 2005, using the adjustment factors in Box 6.4 in Guidance TG4(00). Further attention should be given to this location. It is not clear whether there is relevant exposure. (see also comment on QA/QC).
3. The diffusion tube data are difficult to interpret without details of the type of monitoring site, kerbside, roadside etc, and whether they reflect relevant exposure.
4. No details are provided on the traffic flows or speeds used in the modelling.
5. The statement that if the annual mean meets the objective then the 1-hour objective will also be met, is only relevant for roadsides. Point sources are more significant in relation to short-term impacts and the relationship would be different.
6. The model results table for nitrogen dioxide says corrected for validation. It is not clear what adjustments have been carried out. The validation work has not covered a point source impact due to nitrogen dioxide.
7. No details are provided on how the background nitrogen oxides and point source nitrogen oxides have been treated in the modelling.
8. No details are provided as to how the modelling has been carried out for nitrogen dioxide, so it is not possible to check if it is appropriate, e.g. how was nitrogen dioxide calculated from nitrogen oxides.
9. It is stated that model contours have been produced. They are not shown.

10. It is not clear how the 99.8%iles were derived for the combined road and point source modelling for nitrogen dioxide.

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority in carrying out further Review & Assessment work.

Issues can be followed up through the Review and Assessment helpdesk as follows:

Help desk telephone:	0117 344 3668
Help desk email:	aqm-review@uwe.ac.uk
Web site:	www.uwe.ac.uk/aqm/review

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Ref: RA3-475

Review & Assessment Appraisal Report

Report Prepared by: **Huntingdonshire District Council**

Date Review & Assessment Report Issued: **17 July 2000**

The Report covers Stage 3 of the Review & Assessment required under the Environment Act 1995 and subsequent Regulations.

It covers nitrogen dioxide, PM₁₀ and sulphur dioxide, and concludes that no air quality management areas will be required for any of the regulated pollutants.

The approach to the Stage 3 Review & Assessment and the conclusions reached are accepted for all pollutants.

Ref: RA3-475

Commentary

The report provides most of the information specified in the Guidance.

There are a number of specific items to draw to the local authority's attention:

1. The statement that if the annual mean meets the objective then the 1-hour objective will also be met, is only relevant for roadsides. Point sources are more significant in relation to short-term impacts and the relationship would be different.
2. No details are provided on the QA/QC for the monitoring.
3. It is not really valid to adjust modelled data on the basis of one validation result, especially if the adjustment is downward, as would appear to have been done for the A14 modelling.
4. It is stated in para 6.61 that the objective may not be met now, with reference to Table 6.8 and 6.9. The highest value is 38 $\mu\text{g}/\text{m}^3$ in Table 6.9, which is below the objective. The basis of this statement is not clear, unless it is an unstated allowance for uncertainty.
5. No details are provided on the traffic speeds used in the modelling, nor on whether junctions were considered for nitrogen dioxide, especially in the towns.

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority in carrying out further Review & Assessment work.

Issues can be followed up through the Review and Assessment helpdesk as follows:

Help desk telephone:	0117 344 3668
Help desk email:	aqm-review@uwe.ac.uk
Web site:	www.uwe.ac.uk/aqm/review

Ref: RA3-475

Review & Assessment Appraisal Report

Report Prepared by: **South Cambridgeshire District Council**

Date Review & Assessment Report Issued: **17 July 2000**

The Report covers Stage 3 of the Review & Assessment required under the Environment Act 1995 and subsequent Regulations.

It covers nitrogen dioxide, PM₁₀ and sulphur dioxide, and concludes that no air quality management areas will be required for any of the regulated pollutants.

The approach to the Stage 3 Review & Assessment and the conclusions reached are accepted for all pollutants.

Ref: RA3-475

Commentary

The report provides most of the information specified in the Guidance

There are a number of specific items to draw to the local authority's attention:

1. No details are provided as to the validation correction applied. It is not really valid to adjust modelled data on the basis of one validation result, especially if the adjustment is downward, as would appear to have been done for the A14 modelling.
2. It is not clear why the numbers in Figure 3 and those in Table 6.13 for the same year appear to be so different.
3. No details are provided as to how the 90.4-percentile was calculated for the PM₁₀ modelling. The annual mean to 90-percentile ratio seems unusually high compared with monitoring results (see Guidance TG4(00)).

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority in carrying out further Review & Assessment work.

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Help desk telephone: 0117 344 3668
Help desk email: aqm-review@uwe.ac.uk
Web site: www.uwe.ac.uk/aqm/review

In case of enquiry contact Jo Dicks
 Direct Dial 01223 457892
 Fax 01223 457909
 email j.dicks@cambridge.gov.uk



Dorothy Dixon
 Local Air Quality Management
 Air and Environment Quality Division

DETR
 Zone4 E1
 Ashdown House 123
 Victoria St
 LONDON SW1E 6DE

6 September 2000
 Our Ref KJD
 Your Ref

Dear Mrs Dickson

Re Stage 3 Review and Assessment Report Comments

Thank you for the comments relating to our stage 3 review and assessment of air quality in Cambridge City.

I feel it would be helpful to us both to clarify some of the points raised and fill in any omissions highlighted by the helpdesk.

1. 'No details of QA/QC for monitoring data are provided.' - The three continuous monitoring sites at Parker St, Gonville Place and Silver St, have their data QA/QC as part of the AEA technology/NETCEN Calibration Club scheme. Only QA/QC data was used in the third stage review.
 NOx/NO2 monitoring at Regent Street is part of the AUN and as such undergoes QA QC procedures as part of that scheme.
2. 'No use appears to have been made of tube data for the choice of worst case locations for modelling' – Where numerical modelling was carried out using ADMS Urban the whole of Cambridge City District was covered by modelling it was therefore not necessary to target modelling efforts. For the review of PM10 the locations chosen for assessment were based upon the largest traffic flows and thus creating worst-case scenarios using DMRB. The extensive tube data for the City (now 42 sites) was looked at in relation to this modelling work and was found to broadly concur with the modelling results found. The Inherent inaccuracy of the diffusion tube monitoring method was felt by us to preclude them from any further detailed analysis.
3. 'It is not clear how large an area was covered by the model, including area sources.' – Please see attached map and note highlighted zone corresponds to areas including area sources. The model output grid is referenced as follows OS (538,252 554,264) this covers the Cambridge City District.

Roger Coey
 Head of Environmental Health & Protection
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 Telephone 01223 457890



Awarded for excellence



INVESTOR IN PEOPLE

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

4. 'The approach to background sources is not Ideal....' – Whilst we accept that the treatment of background air quality data is not ideal we feel that we have been open in our presentation of the data and methods used. It would have been ideal to produce a detailed emissions inventory for all sources in Cambridge, however time and staffing constraints meant that available data from NETCEN was the best information open to us. The model validation exercises carried out for NO₂ would suggest that the background sources used were reasonable.

As for the use of 77 road links it is likely that a slight under prediction was due to this. It was felt however that these links comprised the majority of traffic flow within and through the district. It would have been both time consuming and difficult to measure flows for all road links and indeed to model them using ADMS urban, which slows considerably with every source added. This therefore constituted a compromise, which we felt necessary and have made no attempt to disguise. Further more for the 2005 model run the traffic figures used represented the maximum possible (20%) predicted increase in traffic flows across all source segments. Traffic planners have indicated to us that due to the City road network being at capacity already that no traffic growth in the city would be a more likely scenario. That given we feel we have given a comfortable margin of error for traffic sources in the city.

5. 'There is no allowance for the urban background contribution to PM₁₀....' The methodology and results of calculations for the estimate of an urban background PM₁₀ concentration can be found on pages 71 & 72 of the stage 3 report.
6. 'Monitoring data would suggest that DMRB has underestimated concentrations. ' There is a very good reason why monitored data gives a high result when compared to DMRB derived values for Parker St. Parker St. is a true canyon and thus experiences elevated PM₁₀ concentrations which are not accounted for in the DMRB model. Those other streets, which exhibit higher modelled concentrations using DMRB, are not canyons and thus the results can be relied upon more readily. Admittedly, this could have been explained more fully in the report.
7. 'The case for not declaring AQMA's is marginal' - All of the work carried out at stage 3 has a degree of conservatism built in to it, and given the results of modelling exercises particularly for PM₁₀ and NO₂ we feel that it would have been impossible to justify declarations. For SO₂ we feel we have successfully secured an air quality improvement that will cause the objective to be met, which makes it pointless declaring an AQMA. That given the City Council has declared openly its commitment to monitor the situation closely over the coming years to ensure compliance. Where monitored levels of NO₂ presently exceed objectives we are particularly interested to see whether government predictions for improvements in emissions over the next five years will be borne out. At no point have we ruled out declaration in the future should monitoring show that objectives are unlikely to be met.

I hope that this clarifies the matters raised and thank you for your constructive comments.

Yours sincerely

Jo Dicks LLB MSc DIC PGCert
Pollution Officer

Please file 07/P 020A

APPENDIX Aiii



EAST CAMBRIDGESHIRE DISTRICT COUNCIL

THE GRANGE, NUTHOLT LANE
ELY, CAMBRIDGESHIRE CB7 4PL

Telephone: Ely (01353) 665555 Ext 342
Direct Dial (01353) 668833 Fax: (01353) 665240

Mrs Dorothy Dickson
Local Air Quality Management
Department of the Environment Transport & Regions
Zone 4/E11 Ashdown House
123 Victoria Street
London SW1E 6DE

DX 41001 ELY

This matter is being dealt with by:

Mr P Wright

My Ref: PW/LS
Your Ref:

15 December 2000

Dear Mrs Dickson

Re: Local Air Quality Review and Assessment

Thank you for your objective and constructive comments made on East Cambridgeshire's Stage 3 review and assessment. I would like to take this opportunity to try and address the issues raised in the commentary on our report.

The first point raised was in relation to QA/QC information regarding NO₂ diffusion tubes. Information pertinent to this matter can be found in our review of stages 1 and 2 sections 3.16 - 3.24 and further data in relation to this matter can be found in the UK NO₂ diffusion tube network instruction manual.

Point three relates to location of the NO₂ tubes, whether they are kerbside, roadside etc. This information should have been included and can only apologise for its absence, the type of site at each location is as follows, where K = Kerbside, I = Intermediate and B = Urban background.

38 Market Street, Ely = K
58 Market Street, Ely = I
Abbott Thurston, Ely = B
Fieldside, Ely = B
Station Road, Ely = K
Main Street, Littleport = I
High Street, Soham = K
Park Road, Sutton = I
Market Street, Fordham = K
Sheriff Court, Burrough Green = B
Egremont Street, Ely = I
Station Road, Haddenham = K
Brook Street, Sutton = I
Tramar Drive, Sutton = **I**

cont'd.../

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Point four relates to traffic speeds assumed in modelling, these were taken from the 1997 traffic report, sections of which are included in appendix 4 of our stage 1 and 2 assessment.

Point five relates to section 6, table 6.2 for NO₂ modelling results and the validation correction. The model used was ADMS urban using a correction value of 21.5% over read.

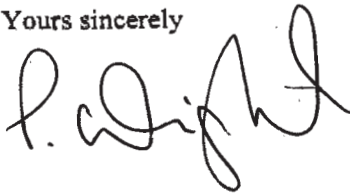
This figure was calculated on the basis of information derived from Huntingdonshire District Council, which has had a long term deployment of a diffusion tube co-located at their roadside automatic NO_x analyser. In 1998, the annual mean NO₂ concentration as measured by this diffusion tube was 48.7 ug/m³, compared to the annual mean NO₂ concentration as measured by the automatic analyser of 40.ug/m³, hence the over read figure of 21.5%.

The diffusion tubes in question are supplied and analysed by Harwell Scientific, Harwell carry out this service for all Cambridgeshire local authorities and therefore, the use of this data is applicable to East Cambridgeshire.

The other points raised in your commentary have been noted and will be considered further in the 2003 review.

Please do not hesitate to contact me for further information or assistance, if required.

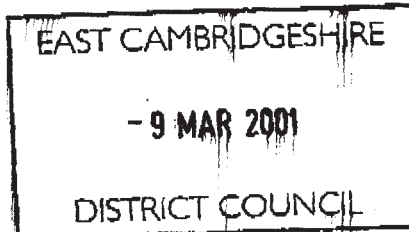
Yours sincerely



P Wright
Technical Officer Environmental Health

m381s

Mr P Wright
Technical Officer
Environmental Health
East Cambridgeshire Council
The Grange
Nutholt Lane
Ely
Cambridgeshire, CB7 4PL



TRANSPORT AND THE REGIONS
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DIRECT LINE: 020 7944 6258
DIVISIONAL ENQUIRIES: 020 7944 6258
FAX: 020 7944 6290
GTN CODE: 3533
martin_burrows@detr.gov.uk

08 MARCH 2001

Dear Mr Wright

LOCAL AIR QUALITY REVIEW AND ASSESSMENT

Thank you for your letter of 15 December 2000 to Dorothy Dickson enclosing comments in response to the appraisal received in respect of your authority's Stage 3 review and assessment report. I apologise for the delay in responding.

We copied your letter to the Review and Assessment Team for their information. I am now writing to confirm that they consider all issues in respect of your stage 3 report to have been dealt with satisfactorily.

Yours sincerely

A handwritten signature in black ink, appearing to read "Martin Burrows".

MARTIN BURROWS

ON BEHALF OF THE SECRETARY OF STATE FOR THE ENVIRONMENT, TRANSPORT AND THE
REGIONS



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Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Mike Hill
Head of Environmental Health

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Mrs D Dixon
LAQM
Air & Environment Quality Division
DETR, Zone 4E1
Ashdown House
123 Victoria Street
LONDON
SW1E 6DE

APPENDIX Av



**Fenland
District Council**

Committed to Equal Opportunities

Community Services Directorate
Fenland Hall, County Road,
March, Cambridgeshire. PE15 8NQ
Telephone: (01354) 654321

Our Ref: GC/la
Ask for: Graeme Carson (01354 622431)
Your Ref: RA3-475

13 December 2000

Dear Mrs Dixon

Local Air Quality Review and Assessment Report

Thank you for your comments on the Council's report. The Council's response is as follows:

1. A revised section on nitrogen dioxide is enclosed for your consideration. This takes into consideration the points made in your Commentary.
2. The operator of the boiler plant in Wisbech is currently trialling the use of low-sulphur, imported, Columbian coal. The operator has agreed to carry out flue gas analysis and supply the results to the Council for further modelling of PM₁₀ and SO₂ emissions. Concurrently, monitoring of SO₂ and PM₁₀ ambient concentrations will continue at the Council's air quality monitoring station in Wisbech. In view of these activities, it is not possible at present to define the boundaries of an AQMA in Wisbech. Therefore, the Council proposes to review its decision not to declare an AQMA in Wisbech at a meeting of the Environmental Services Committee in April 2001 when the situation will be clearer. However, it is accepted that, unless the operator is able to give a firm commitment to replace the boiler plant with gas-fired replacements before the objectives dates, the Council will have to declare an AQMA in Wisbech.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

2
Mrs D Dixon
GC/la
13 December 2000

I hope this is acceptable to you, but I would be grateful for any further comments or advice you may be able to offer.

Yours sincerely

Mr G Carson
Environment Protection Manager
Fenland District Council
Community Services Directorate
Fenland Hall
County Road
March
Cambridgeshire
PE15 8NQ

CAROL TIDMARSH
LOCAL AIR QUALITY MANAGEMENT
AIR AND ENVIRONMENT QUALITY DIVISION

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WEB SITE: www.detr.gov.uk

YOUR REF: RA3-475

29 JANUARY 2001

Dear Mr Carson

LOCAL AIR QUALITY REVIEW AND ASSESSMENT

Thank you for your letter of 13 December to Dorothy Dickson enclosing further comments in response to the appraisal received in respect of your authority's Stage 3 review and assessment report.

Our consultants have considered your comments concerning NO₂ emissions from the boiler plant in Wisbech and have reported that this matter has now been dealt with satisfactorily. The conclusions reached are therefore now accepted for NO₂.

As you know, you are legally required to designate an AQMA if, on the basis of the evidence available to you, it seems likely that there will be exceedences of any of the prescribed air quality objectives in your area by the relevant dates. We are aware that your authority has chosen not to declare an AQMA in respect of PM₁₀ and SO₂, even though both of these pollutants are predicted to exceed the objectives in 2004 and 2005 respectively in Wisbech.

However, we note that the operator of the plant is considering replacement of the boilers that are causing the exceedence and that your authority proposes to review its decision not to declare an AQMA at a meeting of the Environmental Services Committee in April 2001.

I should be grateful if you could keep us informed of developments.

Yours sincerely



CAROL TIDMARSH



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Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

**Mrs Dorothy Dixon
LAQM, Air & Environment Quality Division
DETR, Zone 4 E1, Ashdown House 123
Victoria Street
LONDON
SW1E 6DE**

**Our Ref: DOS/AB/SM/EH 15/1
Your Ref: RA3-475**

21 September 2000

Dear Mrs Dixon

Stage 3 Review and Assessment Report Comments

Thank you for your useful and constructive consultation comments relating to our Stage 3 Review and Assessment of air quality in Huntingdonshire. I am pleased to be able to provide clarification of some of the points raised and to rectify omissions where these have been highlighted. The numbered points below refer to the numbered commentary points raised by the Review and Assessment helpdesk.

1. The comment is noted and accepted. However, it should also be noted that in our Stage 1&2 Review and Assessment report, the areas of concern with respect to exposure at relevant locations were limited to sites adjacent to heavily trafficked major highways and motorways and at roadside sites in Market Towns. This situation was confirmed when we revisited the Stage 2 assessment of point sources at Stage 3. Of interest here also is the fact that the model validation that was done at the monitoring site on the Huntingdon Ring Road includes a significant point source of NO_x emissions from an EPA 1990 Part I (A) regulated glass process which is within 1500 metres of the monitoring station. The validation did not appear to show any anomalies with respect to the expected relationship between annual mean and maximum hour nitrogen dioxide concentrations.
2. The comment is noted and accepted. QA and QC procedures at monitoring stations in Huntingdonshire follow almost completely the calibration, scaling and validation procedures adopted for affiliated sites on the AUN. The exception is that there is no 6 monthly external calibration.

Cont ...

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

Mrs Dorothy Dixon

21 September 2000


Page 2

3. The comment is noted. However, there does not appear to be anything in DETR guidance as to the treatment of model validation results, and it seemed logical at the time to adjust model predictions up or down in line with validation results, regardless of the fact that there was only one validation. The reason for the single validation was the fact that there was a paucity of local monitoring data against which to validate. In the case of the A14, the math modelling gave results that are so far short of the objective concentrations at relevant locations, that the objectives were likely to be met whether or not the results were corrected for validation.
4. Table 6.9 shows a single value that exceeds the hourly objective and this is what is referred to in paragraph 6.61.
5. Traffic speeds used in our modelling are detailed in Appendix 1 of the consultation report. At junctions and roundabouts, separate links are entered into the model, which, whilst using the same traffic flows, have speeds adjusted downwards as appropriate to the perceived level of congestion at each particular feature.

Your consultation response will be included in the final version of the Stage 3 Review and Assessment Report.

Yours sincerely

A Beeching
Scientific Officer
Environmental Health Services Division

 01480 388363
Fax 01480 388361

**SOUTH CAMBRIDGESHIRE
DISTRICT COUNCIL**

ENVIRONMENTAL HEALTH



**South Cambridgeshire Hall
9-11 Hills Road
Cambridge
CB2 1PB**

This matter is being dealt with by: **Mrs Susan Walford**

Our Ref: SW/MEF/1810sw1

Your Ref: RA3-475

Telephone: 01223 443000

Fax: 01223 443248

DX 5848 Cambridge

Direct Dial: 01223 443124

E-Mail: env.health@scambs.gov.uk

18 October 2000

Dear Mrs Dixon

LOCAL AIR QUALITY REVIEW & ASSESSMENT REPORT STAGE 3 COMMENTS

Thank you for your constructive comments relating to our Stage 3 Review and Assessment of air quality in South Cambridgeshire. I am pleased to be able to provide clarification of some of the points raised and to rectify omissions where these have been highlighted. The numbered points below refer to the numbered commentary points raised by the Review and Assessment helpdesk.

1. No details are provided as to the validation correction applied. It is not really valid to adjust modelled data on the basis of one validation result, especially if the adjustment is downward, as would appear to have been done for the A14 modelling.

I have been unable to locate anything in DETR guidance as to the treatment of model validation results. At the time of the assessment it seemed logical to adjust model predictions up or down in line with validation results, regardless of the fact that there was only one validation. Only one validation result was available owing to the paucity of local monitoring data against which to validate. In the case of the A14, the math modelling gave results that indicated that the objectives were likely to be met whether the results were corrected or not.

2. It is not clear why the numbers in Figure 3 and those in Table 6.13 for the same year appear so different.

I assume that this question relates to Figure 6.4 in Appendix 6 (as referenced at paragraph 6.69) and not Figure 3. The comment is noted and accepted. However, may I explain as to the discrepancy. The data used for the contour plots has not been corrected (upwards) for model validation, but the point receptor data in table 6.13 has. This is because there was no validation data for non-roadside receptor sites. Addition of the validation correction at the relevant roadside locations would have brought the numerical values more in line with the point receptor location values, which still show a result below the objective. Additionally, because of the large scale of the contour mapping the very small areas of higher concentrations do not show up.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

- 2 -

3. No details are provided as to how the 90.4th percentile was calculated for the PM₁₀ modelling. The annual mean to 90.4th percentile ratio seems unusually high compared with monitoring results.

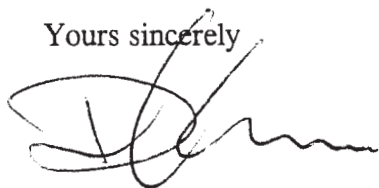
The comment is noted and accepted. The 90.4th percentile concentrations are calculated within the result calculation module of ADMS Urban 1.53, by specifying this as an output statistic.

The 90.4th percentile to annual mean ratios are higher than those currently being observed, but these data were generated using exactly the same model input parameters as those used for the validation at the M4 site, where the validation gave ratios as expected from current monitoring data. The 90.4th percentile of daily means is predominantly a measure of episodic conditions, and will therefore be influenced a lot by the secondary particle contribution. DMRB emission factors that are used in the model predict a 60% fall in vehicle emissions between 1998 and 2005 (for a fleet comprising 25% HDVs) and hence these emissions will become a relatively much smaller fraction of total PM₁₀. Secondary particles on the other hand are predicted to drop only fractionally over the same period. Hence the influence of the secondary particles on percentile statistics will assume more prominence leading to the increased ratios. The observations may be particularly pronounced in the work submitted as the 1996 meteorological data set was used which demonstrates a high frequency of episodic conditions. This assumption will be tested during the review scheduled for 2003.

I hope this clarifies the issues raised. All comments received will be published in the final version of the Stage 3 Review and Assessment Report, due for publication at the end of the year.

Should you require any further information, please do not hesitate to contact Mrs Walford at this office.

Yours sincerely



DALE ROBINSON
CHIEF ENVIRONMENTAL HEALTH OFFICER

Mrs Dorothy Dixon
LAQM, Air & Environment Quality Division
DETR, Zone 4 E1, Ashdown House 123
Victoria Street
LONDON
SW1E 6DE

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report



APPENDIX Aix

CAROL TIDMARSH
LOCAL AIR QUALITY MANAGEMENT
AIR AND ENVIRONMENT QUALITY DIVISION *gw*

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YOUR REF: SW/MEF/1810sw1

14 FEBRUARY 2001

Mrs S Walford
Environmental Health
S Cambridgeshire District Council
South Cambridgeshire Hall
9-11 Hills Road
Cambridge
CB2 1PB

Dear Mrs Walford

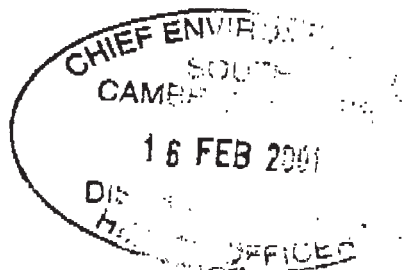
LOCAL AIR QUALITY REVIEW AND ASSESSMENT

Thank you for Mr Robinson's letter of 18 October 2000 to Dorothy Dickson enclosing comments in response to the appraisal received in respect of your authority's Stage 3 review and assessment report. I apologise for the delay in responding.

We copied your letter to the Review and Assessment Team for their information. I am now writing to confirm that they have since reported that they consider all issues in respect of your stage 3 report to have been dealt with satisfactorily.

Yours sincerely

CAROL TIDMARSH



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Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

CAMBRIDGE CITY COUNCIL.

Number and type of responses

231 questionnaire responses were received from respondents living in Cambridge City Council's area. These included 160 newspaper questionnaires from the Cambridge Weekly News, Town Crier and Cambridge Evening News. 71 questionnaire responses were also received. These were handed out at road-show events/exhibitions and were also distributed with copies of the Stage 3 Non-Technical Summary. 31 of the responses were anonymous.

Responses to questions 1 – 9

Question 1 – Which of the following documents have you read regarding air quality?

10 % of the 231 total respondents had read the initial 1998 consultation document, 16% of respondents had read the updated 2000 version and 27.3% of respondents had read the Stage 3 non-technical summary. There were 93 respondents to this particular question, with some of the respondents having read more than one of the documents. In all, 33.8% of the 231 total respondents had read at least one of the 3 documents, with 10% having read 2 and 4.3% having read all 3.

Question 2 – Where did you see the information?

Of the 93 respondents to Question 1, 33.3% had seen information at air quality consultation exhibitions held in Cambridge Town Centre, Sainsbury's and the Grafton Centre, 31.2% had seen information whilst visiting council offices/libraries etc, 26.9% had seen information in the local press, 10.8% had received information by post and 2.2% via the internet. 8.6% of respondents had seen the information in more than one place.

Question 3 – Did the material provide you with adequate information?

Of the 91 respondents to this question, 75.8% answered yes and 24.2% answered no. Respondents were invited to give reasons for answering negatively to this question. These included a lack of detail regarding: monitoring techniques (2.2%), the effects of specific pollutants (5.5%), empirical data (5.5%), solutions to the problem (2.2%), specific industrial sources (2.2%) and general health effects (2.2%). 2.2% of respondents stated that the material was too complex for them to understand.

29.9% of the 231 total respondents had, therefore, received some information regarding air quality which they perceived as being adequate, 9.5% of the total respondents had received some information which they did not perceive as adequate and 60.6% had received no information. This figure would have been significantly lower if the Cambridge Weekly News had published the specified summary of information on the reverse of the questionnaire as instructed.

4. How concerned are you about local air quality?

94.4% of the 231 total respondents state that they are concerned about local air quality to some degree, of these 36.8% are extremely concerned and 35.9% are very concerned.

Respondents were invited to give their reasons for concern. 85% of the 134 respondents who added extra comments are concerned because of health reasons, while other reasons include

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

local environmental/ecological effects (**11.2%**), effects on buildings (**2.2%**) and effects on the global environment (**1.5%**).

5. What do you think is the most important factor affecting local air quality?

84% of the **231** total respondents think that traffic pollution is the most important factor affecting air quality. **10.39%** cite industrial factors and **1.3%** are concerned about natural sources of air pollution.

Respondents were invited to make further comments. These related to specific local industrial facilities (**3.5%**), bonfires (**3%**), agriculture (**1.7%**), poor policy/planning (**1.7%**), household chemicals (**1.3%**), burning tyres (**0.4%**), domestic heating (**0.4%**) and aircraft fuel (**0.4%**).

6. How confident are you in computer model predictions for future years?

22.5% of the **231** total respondents state that they are confident in modelling predictions whereas **31.2%** are not confident. A lack of general understanding regarding the application of computers in the modelling of future air quality is apparent as **44.6%** of respondents are unsure as to their confidence.

7. How do you see air quality improving?

62.8% of the **231** total respondents state that national policies are required to improve air quality and **74.5%** state that local policies are required. Some of these respondents (**32.5%** of **231** total respondents) think that a combination of national and local action would provide the best result.

8. Do you think your local authority should develop a local air quality strategy?

89.6% of the **231** total respondents think that Cambridge City Council should develop an air quality strategy, with **52.8%** of respondents agreeing strongly and only **2.6%** disagreeing with the development of such a strategy.

9. What do you think the local authority should do to improve air quality?

Respondents were invited to choose any number of a range of air quality improvement measures. Many chose multiple options and some added further comments.

Traffic reduction:

87.5% of the **231** total respondents state that Cambridge City Council should encourage the use of public transport. **71.9%** state that more cycle routes and bicycle racks should be provided and **61.3%** state that car sharing should be encouraged. Further comments related to: improving and encouraging public transport (**12.1%**), encouraging cyclists (**3.9%**), reducing school traffic (**1.7%**) and car sharing (**0.4%**).

Traffic management:

68.8% state that vehicle use should be restricted in areas of poor air quality and **43.7%** state that vehicle speed should be reduced on trunk roads. Further comments related to: specific traffic management suggestions (**13.4%**) and the reduction of parking spaces (**1.7%**).

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

Industrial/household emissions:

73.2% of the **231** total respondents state that Cambridge City Council should work with industry to reduce emissions and **59.3%** that home energy efficiency advice should be provided. Further comments related to the use of cleaner technology and fuels (**3.5%**).

Community and industrial liaison:

26.8% of respondents state that Cambridge City Council should facilitate industrial/community liaison and **21.7%** that community discussion groups should be held. Further comments related to the provision of education, both to adults and children (**7.4%**).

Age analysis

Respondents were invited to identify their age group:

No responses were received from under 18s. **6.1%** of respondents were aged 18-25, **29%** of respondents were aged between 25-40, **41.6%** of respondents were aged between 40-60 and **23.4%** were aged over 60.

Conclusions

In conclusion, it appears that the respondents to the public consultation are generally fairly well informed and concerned about the effects of poor air quality, particularly on health. It is also clear that pollution caused by traffic is of major concern and that the public are aware of the importance of alternative means of transport yet are often deterred from using public transport, cycling and walking due to expense, inconvenience and poor quality of services.

A pleasing number of respondents had obtained and read our Air Quality Review and Assessment literature and many appear to be aware of our monitoring and modelling activities.

The vast majority of respondents indicate that a mixture of national and local measures should be taken to improve air quality and are in favour of the production of a Local Air Quality Strategy.

Members of the public are able to access Cambridge City Council's Air Quality website at www.cambridge.gov.uk/ehp/AQHome.htm. The site contains data from monitors around the City, along with some examples of recent literature and other air quality information.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

EAST CAMBRIDGESHIRE DISTRICT COUNCIL

Number and type of responses

200 questionnaire responses were received from respondents living in East Cambridgeshire. These included **35** newspaper replies

Responses to questions 1-9

Question 1- Which of the following documents have you read regarding air quality?

This question was answered by only 95 people, **48%** of the total respondents. More than one answer could be chosen. **77%** of these had read the questionnaire leaflet, followed by **53%** having read the non-technical document. **27%** had read the Review and Assessment of Air Quality in Cambridgeshire, Consultation document, June 2000, whereas only **9%** had read the 1998 Consultation document.

Of those who had read the documents, **87%** had read one document, **6%** had read two documents, **5%** had read three documents and **2%** had read all four documents.

Question 2- Where did you see the information?

A total of 173 responses were received for this question, of which 94% saw the information from one source and 6% from two or more sources. The breakdown of information sources was 23% from Council/library offices, 24% from the newspapers, 2% from the web site, 19% received information by post, 26% attended one of the exhibitions and 3% obtained information from school. Other sources were Parish Councils and places of work at 3%.

Question 3- Did the material provide you with adequate information?

148 people responded to this question. **81%** of these considered that information was adequate and **19%** considered that the information was inadequate. The majority of the negative responses did not give a reason for their answer. Where a reason was given, **25%** thought that the information was too vague, **7%** would like to have seen more information on the Straw burner at Sutton, **7%** wanted more information on legislation and **4%** wanted more information on computer modeling.

Question 4- How concerned are you about air quality?

1% of respondents did not respond to this question. **93%** of the total **198** respondents stated that they were concerned to some degree about air quality. **28%** were extremely concerned, **31%** were very concerned and **34%** were moderately concerned. Only **7%** of the respondents stated that they were not concerned about air quality. The majority of those who were not concerned about air quality were from respondents that had moved to East Cambridgeshire from other areas. They considered that the air quality in East Cambridgeshire was better than urban areas, where they had been living previously (these were specific comments made).

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

When respondents were invited to give comments for their reasons for concern about air quality, the majority stated that they were concerned because of health reasons and the direct link between air quality and health.

Question 5- What do you think is the most important factor affecting local air quality?

61% of the total respondents considered that traffic was the most important factor affecting air quality. **17%** considered that natural factors were important e.g. wind blown dusts from agricultural land. **16%** considered that industry was an important factor and **6%** considered that domestic factors were the most important.

Question 6- How confident are you in computer model predictions for future years?

33% of the total respondents stated that they were not confident in the computer model predictions. It was considered that this response was due to a lack of understanding regarding computer modeling and computers generally. This could explain why the majority of respondents (**41%**) stated that they didn't know and why only **26%** stated that they were confident.

Question 7- How do you see air quality improving?

This question allowed respondents to choose more than one answer.

48% of the respondents to this question thought that air quality would be improved by national policies. **46%** of respondents considered technological advances would improve air quality and **41%** considered local policies were the way forward. **25%** thought that personal action would improve air quality and only **1%** stated they didn't know.

The majority of these respondents considered that a combination of national policies, technological advances and local policies would improve air quality.

Question 8- What do you think the Local Authority should do to improve air quality?

The majority of respondents chose multiple answers for this question.

The majority of the **200** respondents (**70%**) thought that the Local Authority should encourage the use of public transport. It was also considered that they should work with industry to reduce emissions (**65%**) and provide more cycle routes and bike racks (**63%**). **54%** thought that the Local Authority should promote community transport, **51%** stated they should encourage car sharing and **42%** considered that the Local Authority should restrict vehicle use in areas of poor air quality. **38%** thought that they should provide home energy efficiency advice and **23%** stated that industrial community liaison groups should be facilitated. **17%** considered Local Authorities should hold community discussion groups and only **0.5%** considered that the Local Authority should do nothing.

Additional Questions Specific to East Cambridgeshire's Residents

In addition to the core questions shown above, that were asked by all the Cambridgeshire authorities, East Cambridgeshire District Council also asked specific questions to gauge opinion on subjects closely related to air quality in East Cambridgeshire.

Some key points were identified through these questions. One of these points was that people wanted greater access to air quality data. This is being addressed by the provision of a web site

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

dedicated to air quality in the district at www.eastcambs.com and through a direct link to the straw burning power station, at Sutton, for monitoring stack emissions.

The link between health and air quality was one that residents of East Cambridgeshire were particularly aware of, one resident wrote, *“Improved air quality would have healthy effects on local people. This would ease the burden on our health centres. Good air quality would I am sure improve our quality of life.”*

A desire for liaison between the community, business and transport groups was expressed to help formulate an air quality strategy. Although, unfortunately, the majority of respondents expressed a wish not to take part in such schemes. Many respondents, however, ticked the ‘don’t know’ box and it is anticipated that some of these respondents may be prepared to take part, if they knew the exact level of commitment entailed in taking part in these schemes.

The preferred route for the improvement of air quality indicated by the responses was through an integrated approach involving action at all levels, national down to community and individual action.

Although awareness of community transport schemes was fairly high, when respondents were asked if these helped individual transport needs, the response was disappointing. However, it should be noted that community based transport schemes tend to be targeted at specific groups, e.g. the Addenbrookes bus which provides a service to the hospital. Further targeted services may improve the situation but cost benefit analysis would be needed to assess the viability of such schemes.

Public transport is an important issue for a rural area such as East Cambridgeshire. Difficulties with using it concerned infrequency, poor reliability, lack of service to remote areas, high cost, inadequate access and security. The split between those who did find public transport difficult to use and those who did not was only marginally weighted in favour of those finding difficulty in using the service. The issue of public transport is one of the key elements raised in the Local Agenda 21 consultation exercise and work is being carried out on how best to tackle this matter.

Age analysis

95% of respondents replied to this question. The majority of respondents (**37%**) were aged between 40-60 years old. **28%** were 60+, **21%** were 25-40 years old, **7%** were aged between 18-25 and **7%** were under 18 years old.

Conclusions

In conclusion, the stage three consultation process was successful. There was a good response from questionnaires distributed to all communities of East Cambridgeshire, through a variety of mediums. East Cambridgeshire’s residents clearly indicated that they considered air quality was an important issue that had clear links with health.

The majority of East Cambridgeshire’s residents indicated that they would like to see more information regarding air quality. The response to this can already be seen by the construction of a dedicated web site and the progress towards a link with the straw burner at Sutton to monitor emissions data.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

FENLAND DISTRICT COUNCIL.

Responses to questions 1-9

Question 1- Which of the following documents have you read regarding air quality?

There was clearly some confusion amongst respondents regarding the titles of publications read. Over 50% of respondents thought that they had read either the combined Stage 1 and 2 document or the Stage 3 report or non-technical summary. These documents were available only in Council Offices or Libraries, which were visited by only 7.5% of respondents. In actual fact it is clear that most respondents had only read the leaflet attached to the questionnaire or the article in the paper.

Question 2- Where did you see the information?

The vast majority of respondents in Fenland received their questionnaires with their free local papers. Approximately 34,000 questionnaires were distributed and a total of 228 were received completed, a return of 0.67%.

Question 3- Did the material provide you with adequate information?

117 respondents thought that they had read one of the named publications and 103 respondents agreed that the publication had given them adequate information. In view of the above it seems that the Fenland public feel that the A4 leaflet provided sufficient detail on the subject.

Question 4- How concerned are you about air quality?

92% of Fenland respondents were moderately, very or extremely concerned about local air quality.

Question 5- What do you think is the most important factor affecting local air quality?

In response to the question concerning the most important factors affecting local air quality 53% of respondents considered traffic, 26% considered industry and 3.5% considered domestic as most important. The Fenland response for industry was higher than for the other districts in the County, perhaps from the recognition of the problem with combustion products in Wisbech.

Question 6- How confident are you in computer model predictions for future years?

Confidence in computer modeling for future years was poor with only 19% expressing confidence in the process.

Question 7- How do you see air quality improving?

Respondents believed that air quality would improve best through national policies (51%) and local policies (58%). Obviously many respondents ticked both boxes thinking that both are important for future air quality.

Question 8 - Do you think your Local Authority should develop an air quality strategy?

Responses were generally supportive.

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

Question 9 - What do you think the Local Authority should do to improve air quality?

The question as to how Local Authorities should best improve Air Quality had multiple answers and most respondents gave more than one answer. The highest response was that industrial emissions should be reduced (72%), again, perhaps due to them having read about emissions in Wisbech, followed by 62% for encouraging public transport use, 54% for providing cycle routes and 36% for restricting vehicles. These responses were expected given the high level of concern about traffic emissions. Some 34% of respondents thought that restricting vehicle speed would reduce emissions revealing some apparent confusion between road safety and traffic emissions.

HUNTINGDONSHIRE DISTRICT COUNCIL

Responses to questions 1-9

Question 1- Which of the following documents have you read regarding air quality?

Of the 25 responses, 19 had read the stage 3 non-technical summary, 9 had read the Stage 3 consultation document and 7 had read the 1998 consultation document.

Question 2- Where did you see the information?

Of the 25 responses, 13 had received the information by post, 7 had viewed the information at council offices or a library and 4 had viewed the information at an exhibition and one didn't answer this question.

Question 3- Did the material provide you with adequate information?

Yes - 22. No – 1. No Response - 2

Question 4- How concerned are you about air quality?

Extremely - 9. Very - 4. Moderately - 8. Not Very - 2. Not at all - 2.

Question 5- What do you think is the most important factor affecting local air quality?

Industry - 2. Traffic - 20. Other – 3.

Question 6- How confident are you in computer model predictions for future years?

Yes - 10. No - 9. Don't know - 6.

Question 7- How do you see air quality improving?

National policies/action - 11. Local policies/action - 18. Technological advances - 10. Personal action - 8.

Question 8 - Do you think your Local Authority should develop an air quality strategy?

Yes - 21. No - 4.

Question 9 - What do you think the Local Authority should do to improve air quality?

Encourage the use of public transport - 17. Provide more cycle routes - 11. Seek to restrict vehicle use in town centres - 12. Seek to reduce vehicle speed limits on major roads - 7. Work with industry to reduce emissions - 19. Hold community discussion groups - 2. Promote car sharing - 8.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL.

Number and type of responses

185 questionnaire responses were received from respondents living in South Cambridgeshire District Council's area. These included **65** newspaper questionnaires from the Cambridge Weekly News, Town Crier and Cambridge Evening News. **120** questionnaire responses were also received. These were handed out at Village Colleges and shopping venues during a road-show event/exhibition and were also distributed with copies of the Stage 3 Non-Technical Summary.

Responses to questions 1 – 9

Question 1 – Which of the following documents have you read regarding air quality?

5% of the **185** total respondents had read the initial 1998 consultation document, **9%** of respondents had read the updated 2000 version and **24%** of respondents had read the Stage 3 non-technical summary. There were **68** respondents to this particular question, with some of the respondents having read more than one of the documents. In all, **4%** of respondents had read all 3 documents. However 94% of respondents replying to the newspaper questionnaire had not read any of the published documents and were therefore responding from a low technical information base.

Question 2 – Where did you see the information?

Of the **68** respondents to Question 1, **7%** had seen information at air quality consultation exhibitions held in Roadshows, **19%** had seen information whilst visiting council offices/libraries etc, **16%** had seen information in the local press, **19%** had received information by post and **1%** via the internet. The results show that most people saw the information either in the local newspaper, the council offices/library or received the information by post as part of the non-statutory consultation process e.g. parish councils.

Question 3 – Did the material provide you with adequate information?

Of the 60 respondents to this question, 83% answered yes and 17% answered no. Respondents were invited to give reasons for answering negatively to this question. There was no pattern to the answers given.

27% of the 185 total respondents had, therefore, received some information regarding air quality which they perceived as being adequate, 5% of the total respondents had received some information which they did not perceive as adequate and 68% had received no information.

It is thought that there was a high number of non-responders because those filling in the newspaper questionnaire tended to leave this question blank, this reflects the response to question 1 where 94% of newspaper respondents had not read any of the published documents on air quality.

Question 4 - How concerned are you about local air quality?

64% of the **185** total respondents stated that they are concerned about local air quality to some degree, of these **19%** are extremely concerned and **30%** are very concerned.

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

Respondents were invited to give their reasons for concern. **27%** of the **131** respondents who added extra comments are concerned because of health reasons, **24%** of the **185** total respondents did not give a reason.

Question 5 - What do you think is the most important factor affecting local air quality?

49% of the **185** total respondents think that traffic pollution is the most important factor affecting air quality. **12%** cite industrial factors and **4%** are concerned about natural sources of air pollution, **1%** are concerned about domestic air pollution (e.g. smoke from chimneys), **34%** of respondents did not complete this question.

Respondents were invited to make further comments. **8%** gave farming as an important factor **26%** gave local traffic, and **5%** cited domestic smoke as an important factor.

Question 6 - How confident are you in computer model predictions for future years?

15% of the **185** total respondents state that they are confident in modelling predictions whereas **26%** are not confident. However this should be considered alongside the **32%** who chose not to answer the question and the **27%** who acknowledged that they had insufficient understanding of computer modelling techniques to make a judgement.

Question 7 - How do you see air quality improving?

38% of the **185** total respondents state that national policies are required to improve air quality and **37%** state that local policies are required, **38%** said that air quality would improve through technological measures, and **19%** said air quality will improve through personal action. **54%** of respondents said it should be a combination of all 4 measures.

Question 8 - Do you think your local authority should develop a local air quality strategy?

130 of the **185** total respondents answered this question. Of these 130 replies **93%** agree or strongly agree that South Cambridgeshire District Council should develop an air quality strategy. **48%** of the 130 respondents agree strongly and only **2%** disagree with the development of such a strategy.

Question 9 - What do you think the local authority should do to improve air quality?

Respondents were invited to choose any number of a range of air quality improvement measures. Many chose multiple options and some added further comments.

Traffic reduction:

53% of the **185** total respondents state that South Cambridgeshire District Council should encourage the use of public transport. **42%** state that more cycle routes and bicycle racks should be provided and **31%** state that car sharing should be encouraged.

Traffic management:

36% state that vehicle use should be restricted in areas of poor air quality and **23%** state that vehicle speed should be reduced on trunk roads.

Industrial/household emissions:

56% of the **185** total respondents stated that South Cambridgeshire District Council should work with industry to reduce emissions, and **32%** that home energy efficiency advice should be provided

Air Quality Review and Assessment Results of Consultation for Stage 3 Report

Community and industrial liaison.

16% of respondents state that South Cambridgeshire District Council should facilitate industrial/community liaison and **14%** that community discussion groups should be held.

Age analysis

Respondents were invited to identify their age group:

0.7% of responses were received from people under 18. **3%** of respondents were aged 18-25, **15%** of respondents were aged between 25-40, **48%** of respondents were aged between 40-60 and **26%** were aged over 60.

This reflects the general age distribution of the district with the largest percentage of people being between 40 and 60 years old.

Distribution of Respondents

There were responses from 54 parishes of the 101 parishes in South Cambridgeshire District Council area. The largest number of responses was received from Cottenham.

Additional Questions Specific to South Cambridgeshire District Council Residents

Of those people completing the questionnaire, 95% of respondents agreed or strongly agreed that air quality affects health. 53% of those agreeing that air quality affects health personally suffered from breathing difficulties such as asthma.

Six of our district specific questions related directly to the process of review and assessment and attempted to identify the views of residents on the results published in the technical and non-technical summary.

49% of respondents were happy that we had properly assessed air quality, (30% had no opinion). Of those who disagreed with the assessment the pollutants of concern were fine particles and nitrogen dioxide.

41% of respondents felt that we had not undertaken sufficient measurements of pollutants and there was general agreement with the recommendations of the report to carry out further monitoring for fine particles, nitrogen dioxide and sulphur dioxide.

18% of respondents gave suggestions for further monitoring which included traffic congestion and exhaust emissions testing, monitoring at schools and centres of population and one request for monitoring in every parish.

With respect to our decision not to declare an air quality management area, 69% of respondents expressed an opinion on its validity. Of these, 40% agreed with the decision made and 29% disagreed. No-one who disagreed with the decision gave an explanation of why they thought an air quality management area should have been declared.

The majority of respondents felt that we should develop a local air quality strategy and it is the intention of this authority to produce such a strategy to support our corporate aim of environmental protection. However it was disappointing that only 3 parish councils and 6 individuals indicated that they were willing to be involved in developing such a strategy and that such a low percentage of respondents felt that personal behaviour could influence local air quality.

Air Quality Review and Assessment
Results of Consultation for Stage 3 Report

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