Dover District Council

Local Air Quality Management

Final Action Plan

October 2007

CONTENTS

EXECUTIVE SUMMARY

This Air Quality Action Plan is the culmination of the second round of local air quality review and assessment for Dover District Council (DDC). The process of Local Air Quality Management (LAQM) review and assessment has been set down in Part IV of the Environment Act 1995, which forms part of the Government's response to European Directives on Air Quality to which the UK Air Quality Strategy responds.

The first round of review and assessment resulted in the declaration of one Air Quality Management Area (AQMA): the 'Dover Docks AQMA' for SO_2 largely due to sulphur dioxide emissions from shipping activity within the docks.

The results of the second round review and assessment resulted in the declaration of a second AQMA in Dover, the 'A20 Townwall Street AQMA' which covers a stretch of the A20 Townwall Street in Dover between the York Street Roundabout and a point 140m from the Eastern Docks. This AQMA was declared due to predicted exceedences of the annual mean Air Quality Objectives for nitrogen dioxide (NO_2).

In compiling this Action Plan, Government guidance LAQM.PG (03) and guidance from the National Society for Clean Air has been referred to, alongside guidance provided by the Department for Environment, Food and Rural Affairs through its Air Quality Action Plan Help Desk. The draft Action Plan was initially completed in July 2006. Comments and suggestions from statutory and non-statutory consultees are included in this final Action Plan and are attached as Appendix 1. Some changes in text of the report have been implemented where appropriate and where the Council considers the changes necessary to clarify issues. Issues raised by the Highways Agency have been addressed by correspondence which has been included in the Appendix along with informal comments from their consultants Parsons Brinkerhoff. Control of traffic into Dover through the main A2/A20 routes is complex and the views included in this report from stakeholders are welcomed.

The aim of this Action Plan is to identify how Dover District Council will use its existing powers and work together with other organisations in pursuit of the annual mean Air Quality Objective for nitrogen dioxide. Measures are proposed to improve air quality both within the AQMA and throughout the District as a whole. The proposed actions will help work towards the NO2 annual mean objective. It was not possible to assess the air quality impacts of the measures outlined within this Plan through detailed modelling, however a qualitative assessment of impacts of all measures has been included in the action plan summary tables by way of indication of potential benefits. The impacts of measures will be further considered through future progress reports.
The Further Assessment predicted that the annual mean NO2 objective would be met at the worst-case receptors by 2010, based on current traffic growth forecasts, without local intervention through Air Quality Action Plan measures. However, it should be noted that the Dover Harbour Board proposals for future expansion of the Port, could mean much higher growth in traffic than modelled at that time and recent traffic growth indicators show significant increases in traffic.

The Highways Agency is responsible for the management of the A20 Townwall Street and as such is responsible for any direct actions proposed for the AQMA in order to reduce road traffic emissions. Dover District Council will work together with the relevant transport authority, the Highways Agency, and other relevant stakeholders to improve air quality within the AQMA and throughout the District.

The direct measures proposed for the AQMA are:

- Improved traffic management through junction improvements
- Dualling of the A2 between Lydden and Dover
- Strategic Signage Improvements
- Improvements to Eastern Docks Layout
- New Dover Eastern Docks Exit Road to A20 Townwall Street
- Consideration of the Effects of the Development of a Port Buffer Zone
- Consideration of the Effects of Expansion to Western Docks
- Transfer of Freight from Road to Rail

The general measures to improve air quality across the whole District are:

- DDC will encourage Council Travel Plan opportunities and seek to facilitate uptake of sustainable modes of transport
- DDC will continue to work together with Kent County Council to encourage the uptake of Employer and School Travel Plans within the District
- DDC will continue to work with KCC to improve the facilities for cycling and walking within Dover and encourage greater uptake
- DDC Environmental Health will continue to work closely with the Planning Department to ensure that air quality is taken into account in the planning process when located in or close to the AQMA or in areas marginally below air quality objectives.
- DDC will continue to work together with developers to improve sustainable transport links serving new developments
- DDC will develop, through the Kent & Medway Air Quality Partnership, supplementary planning guidance to assist with air quality assessments of development proposals
- DDC will continue to work together with KCC to improve public transport services and encourage the use of more sustainable transport modes
- DDC will continue their commitment to local air quality monitoring within the District to ensure a high standard of data is achieved to assess against air quality objectives
- DDC will make details of the Action Plan measures and annual progress reports available on the Website to ensure broad access to the consultation and implementation process
- DDC will continue to work together with the Kent and Medway Air Quality Partnership on promotional activities to raise the profile of air quality in Dover
- DDC will continue to work together with the Kent Energy Centre to promote and implement energy efficiency measures in Dover

1 INTRODUCTION AND AIMS OF THE ACTION PLAN

1.1 Project Background

Dover District Council has drawn up, with the assistance of Bureau Veritas, a Local Air Quality Management Action Plan for the Air Quality Management Area within Dover District Council identified through the first round of review and assessment of air quality. The Action Plan is required to be undertaken as part of the local authority's statutory duties as defined within Part IV of the Environment Act, 1995.

Bureau Veritas has undertaken previous review and assessment reports for Dover District Council, which includes the Further Assessment (2005).

1.2 Legislative Background

Part IV of the Environment Act, 1995, places a statutory duty on local authorities to periodically review and assess the air quality within their area. This involves consideration of present and likely future air quality against air quality standards and objectives. Guidelines for the 'Review and Assessment' of local air quality were published in the 1997 National Air Quality Strategy (NAQS) [1] and associated guidance and technical guidance. In 2000, Government reviewed the NAQS and set down a revised Air Quality Strategy for England, Scotland, Wales and Northern Ireland[2] (AQS). This set down a revised framework for air quality standards and objectives for seven pollutants, which were subsequently set in Regulation in 2000 through the Air Quality Regulations 2000[3]. These were subsequently amended in 2002[4].

Where it appears that the air quality objectives will not be met by the designated target dates local authorities must declare an Air Quality Management Area (AQMA) and develop action plans in pursuit of the air quality objectives. Following the declaration, Dover District Council is required to develop an Action Plan for the A20 Townwall Street AQMA in the District within 12 – 18 months.

Policy Guidance LAQM.PG(03) was published by the Government in 2003, which included guidance on the development of action plans. The NSCA have published guidance 'Air Quality Action Plans (2000)' and 'Air Quality: Planning for Action (2001)'. These guidance documents have been taken into account in development of this Action Plan for Dover District Council, alongside guidance provided by the Department for Environment, Food and Rural Affairs through its Air Quality Action Plan Help Desk, which provides examples of best practice and an Action Plan appraisal checklist.

1.3 Scope of the Action Plan

The purpose of the Action Plan is to provide the means through which a local authority through joint working with relevant stakeholders, such as the Highways Agency, Kent County Council, Dover Harbour Board and other relevant organisations, can deliver viable measures that will work towards achieving the Air Quality Objectives within an AQMA. The aim is also to encourage active

[1] DoE (1997) The United Kingdom Nation Air Quality Strategy The Stationery Office
[2] DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – Working together for Clean Air, The Stationery Office
[3] DETR (2000) The Air Quality Regulations 2000, The Stationery Office
[4] Defra (2002) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum, The Stationery Office

participation in the achievement of action plan measures by consulting the local community and raising awareness of air pollution issues.

Local authorities are required to prepare a written Action Plan for an AQMA, setting out the action plan measures they intend to take forward and the potential costs and benefits of these measures. The Further Assessment provides the technical backup for the measures to be included within the Action Plan. The Action Plan should refer to the findings of the Further Assessment in terms of source apportionment (i.e. where emissions are coming from) so that action plan measures are targeted appropriately.

The Action Plan should contain simple estimates of the costs and benefits and timescales for implementing the proposed action plan measures, so that measures can be prioritised for implementation and subsequently monitored. The Action Plan should also indicate how far the measures will work towards achieving the Objectives.

1.4 Reporting of Action Plan

The A20 Townwall Street AQMA has been declared due to road traffic emissions from vehicle movements in the vicinity of the Port of Dover, notably HGV movements.

The Highways Agency is the relevant transport authority for the A20/M20 corridor, including the A20 Townwall Street (AQMA). Kent County Council (KCC) is the relevant highway and transport authority for roads on the local network (e.g. Woolcomber Street, which joins the A20 Townwall Street in the AQMA) and will work jointly with Dover District Council (DDC) on transport measures within the District. County Councils have a duty under section 86 (3) of the Environment Act 1995 to put forward proposed actions which they themselves can implement to work towards meeting the air quality objectives in AQMAs. KCC should include these measures within the air quality section of the Local Transport Plan (LTP).

The Action Plan reflects the relevant organisational responsibilities for actions within the AQMA and proposed measures (Section 7) are reported as:

- Direct actions proposed for the A20 Townwall Street AQMA (responsibility of the Highways Agency, in partnership with DDC, KCC and Dover Harbour Board);
- Indirect actions District-wide to improve air quality throughout the Dover area, including the AQMA (responsibility of DDC and KCC).

2 OVERVIEW OF AIR QUALITY IN DOVER

The main source of air pollution in the District is road traffic emissions from major roads, notably the A2 and A20 Trunk Roads in Dover as well as a number of primary urban roads through Dover town centre. In addition, sulphur dioxide emissions from shipping activity in the Eastern Docks have been shown to be a problem within a localised area. Other pollution sources, including commercial and domestic sources, also make a contribution to background pollution concentrations.

A summary of Dover District Council's second round of review and assessment of air quality, which commenced in 2003, is shown in table 1. The individual stages are summarised briefly with respect to outcome below:

- *Updating and Screening Assessment*

The Updating and Screening Assessment (2003) was the first phase of the second round review and assessment. Similar to Stage One of the previous round, there was consideration of the seven pollutants of concern to health and an assessment was made as to whether Air Quality Objectives for these pollutants would be met. Dover District Council completed this in July 2003, with the conclusion that a Detailed Assessment was required for NO_2 due to emissions from road traffic at the junction of the A20 Townwall Street, and Woolcomber Street and the junction of High Street and Ladywell in Dover. All other Air Quality Objectives were expected to be met.

- *Detailed Assessment*

The Detailed Assessment (2004) and subsequent Addendum Report considered the nitrogen dioxide (NO_2) annual mean objective at the two locations identified in the Updating and Screening Assessment, through dispersion modelling using ADMS-Roads and additional monitoring undertaken at relevant receptor locations.

The results showed that there were predicted exceedences of the NO_2 annual mean Objective identified at the nearest receptors to the A20 Townwall Street / Woolcomber Street junction and the High Street / Ladywell junction:

The Detailed Assessment concluded that Dover District Council should consider declaring an Air Quality Management Area (AQMA) for the A20 Townwall Street / Woolcomber Street junction on the basis of the potential exceedences in the assessment area as highlighted in the Detailed Assessment Report where exposure criteria are fulfilled. The detailed assessment also concluded that on the basis that the assessment was highly precautionary, there was no necessity to declare an AQMA at the junction of High Street and Ladywell. Instead, it was recommended that additional NO_2 monitoring should be undertaken at this junction, in particular monitoring of NO_2 using diffusion tubes mounted at the most significant receptor identified in the detailed assessment (13 High Street). The Department for Environment, Food and Rural Affairs (DEFRA) accepted the Detailed Assessment conclusions.

Dover District Council declared the A20 Townwall Street, between the York Street Roundabout and a point 140m from the Eastern Docks, as an AQMA in October 2004.

- *Further Assessment*

The results of the source apportionment work from the Further Assessment indicate that road traffic emissions are the main source of NO_X concentrations in the AQMA. The HDV class vehicles are contributing disproportionately to NO_x concentrations in the AQMA area; contributing approximately two thirds of NO_X from road traffic but being a relatively small proportion (20%) of the vehicle fleet.

Source apportionment of NO_X concentrations at a building façade within the AQMA

Location/ AQMA	**NO_X concentrations 2005**	**%**	**µg/m^3**
Gateway (X=632296 Y=141420) A20 Townwall Street AQMA	Background	14.0	24.7
	Road traffic	86.0	151.2
	HDV contribution	67.8	119.2
	LDV contribution	18.2	32.0

The maximum predicted concentrations of NO_X/NO_2 at the worst-case receptors and required reduction in NO_X emissions for the AQMA are shown as follows:

The maximum NO_x reduction required within the A20 Townwall Street AQMA at the façade in Gateway (X=632296 Y=141420) is 37.3µg/m^3 (equivalent to a 21% improvement in NO_X) in 2005 and NO_2 reduction is 4.5µg/m^3 (equivalent to a 10% improvement in NO_2). Consequently, the proposed action plan measures aim to reduce the levels of NO_x/NO_2 within the AQMA by this amount.

The Further Assessment predicted that the annual mean NO_2 objective would be met at the worst-case receptors by 2010, based on current traffic growth forecasts. It should be noted that the Dover Harbour Board proposals for future expansion of the Port, could mean much higher growth in traffic than modelled at that time. To achieve the objective in 2005, the Further Assessment predicted that a 30% reduction in HGV movements would be required. This was a scenario tested to consider the impact of rerouting some of the current port traffic HGV movements from the A20 to the A2.

Table 1: Summary of the second round review and assessment process for Dover District Council

Source	Updating and Screening Assessment (2003)		Detailed Assessment (2004)	Further Assessment (2005)
Road Traffic	SO_2		Exceedence of the annual mean NO_2 Objective resulted in declaration of the A20 Townwall Street in Dover, AQMA due to road traffic emissions.	Further assessment of NO_2 in AQMA. Support for continuance of the AQMA – Action Plan required.
	NO_2	➔		
	PM_{10}			
	Carbon monoxide			
	Benzene			
	1,3 Butadiene			
	Lead			

3 EXISTING POLICIES AND STRATEGIES TO IMPROVE AIR QUALITY

There are a number of related policies and strategies at the local and regional level that can be tied in directly with the aims of the Air Quality Action Plan, and will help contribute to overall improvements in air quality across the District.

3.1 Dover District Local Plan (Adopted 2002)

The adopted Local Plan, which forms part of the overall development plan for Dover up to 2006, details the land use planning policies and proposals for the District. Local Plan policies were automatically saved for a period of three years from the date of the Planning Compulsory Act and the District Council has recently submitted an application to 'save' various Local Plan policies until they are replaced by policies contained in the Local Development Framework (LDF).

It is fundamental to the achievement of the aims of the Air Quality Action Plan to have a Local Plan that recognises the importance of air quality in terms of the environmental impact of development and the need for sustainable transport measures. The Kent & Medway Structure Plan contains three policies in relation to air quality (considered in more detail in section 3.10), which will provide additional protection with regards to air pollution for it to be applied for the purposes of development control.

The Government has introduced a new national planning system which has seen Local Plans replaced by LDF's which will comprise of a series of Local Development Documents (LDDs).

Dover District Council has produced a Sustainability Assessment Scoping Report (January 2005) which considers the priorities for action in the LDF and sustainability problems in the Dover area, which includes relatively poor transport access. The Scoping Report sets out indicators and objectives for appraisal of the LDF and is currently in the process of being updated.

The Council's Forward Planning section is currently preparing an LDF. Public consultation is due to take place in the March 2008 on the following LDF documents:

Core Strategy – This is the key document. It identifies the issues facing the District, the aims and objectives and considers the options for addressing the issues. It identifies and elaborates upon a preferred option. It also includes the set of Core Policies to put the preferred option into action. The Core Strategy will also be used to allocate any area of land of strategic nature and has been expanded to include a separate section on general policies.

Site Allocations Document – This Document allocates land for development throughout the District. It also includes policies to guide the development of individual sites where justified by the scale of development and/or the complexity of issues.

3.2 Dover District Council Local Agenda 21 (LA21) Strategy

LA21 originated from the Earth Summit in Rio de Janeiro in 1992. It incorporates the concept of sustainable development – meeting current needs without compromising the needs of future generations. The LA21 process enables

communities to take an active role in conserving their local environment and improving their quality of life.

The Dover District LA21 Strategy aims to achieve the following goals:

Involvement:

1. Actively involve local people and organisations in Local Agenda 21 work.
2. Raise awareness of Local Agenda 21 issues across the whole community

Community and Health:

3. Improve the sense of community locally, especially for those who feel excluded, and celebrate cultural diversity.
4. Improve access for all local people to good quality health, leisure and cultural facilities.
5. Reduce the fear of crime.

Local Economy:

6. Ensure that employment and training opportunities are available to meet everyone's needs.
7. Work with local and potential businesses to support sustainable practices.
8. Encourage communities to support their local businesses and services.

Natural Environment:

9. Protect and improve the landscapes and biodiversity of the district's coast, countryside and villages.
10. Improve sustainable access to the countryside where this will not have adverse effects on biodiversity, agriculture or other countryside users.
11. Improve the sustainability of local food production and distribution.
12. Minimise the local use of products that jeopardise global biodiversity.

Built Environment and Resource use:

13. Improve the efficiency of energy use and increase use of renewable energy forms.
14. Protect water resources and reduce water consumption.
15. Reduce the amount of waste generated and increase the proportion that is reused and recycled.
16. Promote high environmental standards within new developments and refurbishments.
17. Conserve valued buildings and improve public access to them.
18. Bring previously used buildings back into active use where viable and appropriate.

Transport:

19. Improve the integration of transport in the district.
20. Work with public transport users and providers to make public transport a viable alternative to car use in most areas.
21. Improve facilities for walking and cycling throughout the district and promote these low impact forms of transport.
22. Promote more responsible and efficient car use.

The Dover District LA21 Strategy (2001) objectives have largely been incorporated into the Dover District Community Strategy (2003 – 2010).

3.3 Dover District Community Strategy (2003-2010)

The Community Strategy (2003-2010) has been drawn up for Dover District by the Dover Local Strategic Partnership. The Strategic Partnership includes representatives from the District Council, as well as a wide range of public, private and voluntary community organisations. The Environment is listed as a key issue within the Strategy and the Strategy promotes sustainable development and transport in the area. One of the objectives is to:

'fund improvements to the A20 at Townwall Street, Dover, through lobbying the Highways Agency for structural improvements'

3.4 Dover District Council Corporate Plan (2006 – 2012)

The Corporate Plan outlines a six-year programme which includes challenging targets aimed at improving the quality of life in the Dover district. The Corporate Plan sets out how Dover District Council will take forward the actions proposed in the Community Strategy for the local area. One of the aims within the plan is to 'ensure sustainable communities' by focusing on housing, urban and community regeneration in priority areas of Dover town, North Deal and Aylesham. With regard to air quality, the Plan includes targets to ensure compliance with responsibilities as set out within the National Air Quality Strategy. Other targets include ensuring sustainable development of proposed regeneration sites including the White Cliffs Business Park; revision of the district's waste strategy and promoting recycling and waste minimisation; improving public transport, notably through an ambitious transport strategy and through promoting the provision of sustainable infrastructure.

3.5 Dover Pride Regeneration Strategy (2004)

The Dover Pride Regeneration Strategy and Action Plan (May 2006) have identified a number of 'critical' priority projects that provide an overall structure for the regeneration programme. A number of key urban development projects are involved: Dover Town Investment Zone (including the St James's Area and York Street); White Cliffs Business Park Phases 2&3, Waterfront Destination Flagship Project, and Buckland Mill, Crabble Hill, Dover. Of these, the Dover Town Investment Zone has significant implications for the A20 Townwall Street AQMA, and the action plan, as these large-scale development proposals are bounded by the A20 Townwall Street. The St James's Area has been subject to a detailed air quality assessment, which predicts a marginal worsening of air quality in the AQMA as a result of the development (<1µg/m^3).

3.6 Dover District Transport Strategy (Aug 2005)

The Dover District Transport Strategy (2000) was revised on 2005 to inform and assist the formulation of the 2nd Kent Local Transport plan (LTP) 2006 – 2011.

The key transport issues in Dover include:

- **A20(T)/M20 and A2(T)/M2 Route Corridor Management**
  Dover District Council, Kent County Council and Dover Harbour Board have continued to voice their concerns that the improvement of the A2(T) route, particularly the dualling of the sections between Lydden and the Port of Dover, are of critical importance. There is a growing perception that the real issues and significance of the A2(T), in the context of Dover's importance as Britain's premier port and the role that it has to play in delivering the regeneration/sustained growth of Dover, has not been understood. Representations have been made, and will continue to be made, to Government on this matter.

- **A20 Townwall Street**
  The A20(T) Townwall Street runs through the heart of the town feeding both the Eastern and Western Docks. In keeping with the established hierarchical standing and associated signing, it currently carries in the region of 75-80% of the port related traffic. These high traffic volumes provide a substantial separation of the seafront from the town centre. More importantly are the effects of the associated road traffic emissions on the surrounding environment.

- **Dover Town Centre Circulation**
  Traffic and pedestrian movement in and around the centre of Dover is perceived to be a problem that is exacerbated by the use of A20(T) Townwall Street by both port and local traffic.

- **Freight Movement**
  The movement of freight is particularly significant because of the Port of Dover. A high number of Heavy Goods Vehicle (HGVs) movements are recorded as a result of this. Although concentrated on the strategic road network they do make a detrimental contribution in general to the environment, as the A20(T) Townwall Street testifies. Reducing the level of road demand by encouraging rail freight services to the area is particularly difficult in the short term because of the competitive service already provided by the Channel Tunnel and the lack of a direct rail connection to the port.

  The key elements of the Transport Strategy, in relation to the A20 Townwall Street AQMA, include:

- **A2(T) Lydden Hill to Dover**
  Provision of full dual carriageway with grade separated junctions, through the Targeted Programme of Improvements.

- **An Eastern Docks Exit Slip Road**
  The current Eastern Docks junction layout and position in relation to the structure of A2(T) Jubilee Way and properties on A20(T) Townwall Street limits the potential to provide greater capacity for vehicle throughput. Dover Harbour Board, partly in the light of predicted growth at the Port of Dover, have promoted the concept of a direct exit slip road connection to the A20(T)

Townwall Street west (town side) of the existing junction. This would supplement the existing exit onto the roundabout and distribute the exiting flows in such as way as to spread the load and alleviate pressure on the existing roundabout junction. However, the Strategy stresses that this proposed exit slip road cannot be considered in isolation to the operation of A20(T) Townwall Street or within the port itself, as easy access to and signage for the A2(T) as an alternative route from Dover within the docks complex are considered paramount. (*see consultation appendix)*

- **Rail Freight – Western Docks**
  There are currently no rail freight services in the district, with the Channel Tunnel providing the only facility in the area. There is an ongoing consideration of the feasibility of reinstating a rail link into the Western Docks. Kent County Council and Dover District Council will continue to work with Dover Harbour Board and the rail authorities to try to realise the potential that exists for introducing rail freight operations at the Port of Dover.

- **The Improvement of the A20(T) Townwall Street**
  There are current problems of congestion and air quality on the A20 Townwall Street that need to be addressed, and these are expected to be exacerbated by the growing demands for access to the Port of Dover. Options under consideration to improve flows include: the separation of port and local traffic through the provision of elevated or tunnel sections and influencing driver's trip behaviour and routeing through signing.

These elements are considered further, later in the Action plan, with respect to direct measures for the A20 Townwall Street AQMA.

Work is currently progressing on preparing a Dover Transportation Study which is due to be completed by the end of September 2007. This study is a key part of the evidence base for the LDF as it will include the development of a computerised transport model that will demonstrate how people will travel in Dover and how new development will impact upon travel behaviour, air quality and the performance of highway and public transport networks, Recommendations will be made on the type, location and timing of transport improvements required to improve current accessibility levels in Dover and accommodate growth.

3.7 Dover Issues Report (July 2005)

The Dover Issues Liaison Group regularly meets to discuss and identify traffic issues in Dover, including the transport issues that impact on the A20 Townwall Street. The Liaison Group includes Dover District Council, the Highways Agency, Kent County Council and Kent Police. From these discussions, the Highways Agency has produced an A20 Townwall Street, Dover Issues Report. This report describes the issues impacting on the A20 Townwall Street, AQMA, discusses what can be done and identifies a work programme to look into the potential options to improve the situation.

The proposed options discussed are considered further in section 6, when considering the direct measures to improve air quality in the AQMA.

3.8 Kent Environment Strategy (2003)

The Kent Environment Strategy was drawn up by Kent County Council in partnership with the District Authorities. The objectives of the Strategy relevant to air quality are shown below.

How will we get there?

What?	Why?	Who?	When?
Meeting National Air Quality Objectives			
Develop and implement strategies and action plans to work towards achieving the National Air Quality Objectives.	To reduce the risks on health and the environment from high levels of pollution.	DCs & MC assisted by KMAQP	Prepare, implement and revise AQMA Action Plans from 2002; designation of further AQMAs as necessary
Reducing the impact on environmental health			
Establish and disseminate information about Nitrogen Dioxide (NO_2), Sulphur Dioxide (SO_2), Carbon Monoxide (CO), Particulates (PM_{10} and PM_{25}) and Ozone (O_3) levels.	To provide a better understanding of air pollution, determine trends, inform the future action required and raise the awareness of those susceptible to high levels of pollution.	Kent and Medway Air Quality Monitoring Network (DCs & MC)	• Monthly and annual monitoring reports • Daily bulletins via the internet (www.kentair.org.uk)
Planning new development appropriately			
Incorporate air quality policies in the Kent and Medway Structure Plan and District Council Local Plans informed by the Kent and Medway Air Quality Model's (KMAQM) predictions of the air quality impacts associated with cumulative effects of proposed new development.	To minimise the impact on air quality from future development across Kent, particularly in areas identified as having poor air quality.	KCC, DCs & MC	• KMSP - Draft on deposit 2003 • Local Plan Review – ongoing • Ongoing use of the KMAQM to inform planning application decisi
Raise awareness and encourage greater interaction amongst the relevant decision-makers including environmental health, transport and land use planning officers.	To ensure that the impact of development on air quality is appropriately assessed.	Kent and Medway Air Quality Partnership	Ongoing
Regulate industrial processes through Integrated Pollution Prevention Control (IPPC) and Local Air Pollution Control (LAPC) and raise environmental standards through the use of environmentally friendly technology.	To minimise the impact of current and proposed industrial processes and associated emissions such as volatile organic compounds.	EA, District Councils, DCs & MC	• Ongoing IPPC and LAPC regulati • Raised environmental standards a part of 4 year review of IPPC and LAPC authorisations • Ongoing through planning application decisions
Incorporate more sustainable forms of transport, incentives and traffic management measures into the Local Transport Plan (LTP).	To move towards methods of transport which cause less pollution and promote walking, cycling and public transport.	KCC in consultation with DCs & MC	Strengthen policies in Local Transport Plan by 2004
Tackling transboundary pollution			
Tackle transboundary pollutants (i.e. ozone and particles) at a regional level by sharing information and working together with neighbouring authorities in the UK and northern France.	To address pollution at a regional level as airborne pollution does not recognise local authority boundaries.	KCC on behalf of the KMAQP	Ongoing through transnational projects

In February 2005, Kent County Council launched the 2005 Kent Environment Strategy Progress Report (2005). Progress with actions relating to air quality is shown in Table 2.

3.9 Kent Local Transport Plan

The second Local Transport Plan (LTP) for Kent (2006-2011) was submitted to the government on 31st March 2006. The LTP describes the long-term 'vision' for transport in Kent which is; ***"to provide good, safe accessibility to jobs and services for all sections of the community in Kent, and to improve the environment and health of the community by reducing congestion and pollution, widening the choice of transport available, and by developing public transport, walking and cycling."***

The 2nd LTP reviews the strategies set out in the original LTP and lays out additional strategies and priorities designed to create a better, more integrated sustainable transport system for Kent. Existing and new initiatives include Smarter Choices, the Network Management Plan and Quality Bus Partnerships between the local transport authority and transport operators.

The 2nd LTP includes improving air quality as one of four shared priorities along with; improving congestion; improving road safety; and improving accessibility. The 2nd LTP describes the co-ordination between Kent County Council and the Kent and Medway Air Quality Partnership in order to improve air quality through reducing traffic emissions with particular relevance to the AQMAs declared in Kent.

The proposed schemes for Dover within the 2nd LTP focus on Quality Bus Partnerships, including Dover Town Centre bus priority. It also includes measures to support Travel Plans including Safer Routes to Schools and workplace travel

plans, new cycle routes, the implementation of a walking strategy, improved access to railway stations, interchanges and circulation and parking improvements in the town centre.

Relevant proposed LTP schemes likely to have direct and indirect impacts on local air quality within the A20 Townwall Street AQMA are referred to where relevant within this Action Plan.

Table 2 Kent Environment Strategy Progress Report 2005 –Air Quality

What we said we would do	What has happened?	What next?
Develop and implement strategies and action plans to work towards achieving National Air Quality Objectives -implement and revise Air Quality Management Area (AQMA) Actions Plans and designate further AQMAs as necessary	•Detailed Assessments completed for Ashford, Dartford, Dover, Gravesham, Maidstone, Tonbridge and Malling and Tunbridge Wells, identifying potential AQMAs •Action Plans prepared by Medway, Dartford,Dover, Gravesham, Sevenoaks and Tonbridge and Malling •Some Air Quality Management Plans stalled or not yet adopted by local authorities –no implementation of actual measures	•Quantify results of modelling undertaken in Detailed Assessments -areas predicted to exceed National Air Quality Objectives will be formally designated as AQMAs •Action Plans to be (i)implemented (ii)produced where further AQMAs designated(iii)incorporated in Local Transport Plans •Thanet and Canterbury to proceed to Detailed Assessment for NO_2 and PM_{10} •Develop awareness raising campaigns to change behaviour, especially in problem areas
Establish and disseminate information about levels of Nitrogen Dioxide (NO_2), Sulphur Dioxide (SO_2),Carbon Monoxide (CO) Particulates (PM_{10} and PM25) and Ozone (O_3)	•Continuous monitoring network exists in the County and a number of new sites have been brought on-line to assist with Local Air Quality Management •New sites located in Swale	•Continue monitoring, including annual reports •Relaunch Kent Monitoring Network website in 2005 to improve user-friendliness •Address further monitoring requirements identified in Ashford (M20 and Canterbury Road)and Tunbridge Wells
Incorporate air quality policies in Kent and Medway Structure Plan (KMSP) and local plans informed by Kent and Medway Air Quality Model (KMAQM) predictions of cumulative impacts of proposed new development	•KMSP includes policies to improve air quality and reduce pollution •Some local plans have incorporated air quality policies •KMAQM used to assess impact of major developments (e.g.Cliffe Airport)	•Emerging LDFs to take on board changes in National Air Quality policy •Apply policies in ongoing consideration of planning applications •Update KMAQM in 2005 to allow modelling at regional and local level •Produce Supplementary Planning Guidance for developments
Raise awareness and encourage greater interaction among decision-makers on environment, health, transport and land use	•County wide air quality seminar held in 2003/•Local Air Quality Management action has raised awareness	•Hold air quality seminar April 2005 •Re-launch website •Increase involvement of planners and health sector in KMAQP
Regulate industrial processes through Integrated Pollution Prevention Control (IPPC) and Local Air Pollution Control (LAPC) and raise environmental standards through the use of environmentally friendly technology	•EA and district councils regulate industrial processes – new system of regulation introduced in past 2 years •KCC and district councils assessing planning proposals on a case by case basis	•Ongoing •Run KMAQM where appropriate to assess cumulative impacts
Incorporate more sustainable forms of transport, incentives and traffic management measures into the LTP 2006-11	•LTP reviews and Strategic Environmental Assessment underway	•Submit Draft LTPs July 2005 – Strategic Environmental Assessments will test sustainability
Tackle transboundary pollutants (i.e. ozone and particles) at regional level by sharing information and working together with neighbouring authorities in the UK and northern France	•Work underway to understand composition of dust particles and their cross-Channel Movement	•Complete project June 2006 – concluding with conference •Conduct further work on ozone with a bid being progressed with Sussex Air Quality Steering Group

3.10 Kent & Medway Structure Plan

The Kent and Medway Structure Plan has three policies relating to air quality.

Policy NR54: Pollution Impacts

The quality of Kent's environment will be conserved and enhanced. This will include the visual, ecological, geological, historic and water environments, air quality, noise and levels of tranquillity and light intrusion.

Development should be planned and designed to avoid, or adequately mitigate, pollution impacts. Proposals likely to have adverse implications for pollution should be the subject of a pollution impact assessment.

In assessing proposals local authorities will take into account:

a) impact on prevailing background pollution levels; and

b) the cumulative impacts of proposals on pollution levels; and

c) the ability to mitigate adverse pollution impacts; and

d) the extent and potential extremes of any impacts on air quality, water resources, biodiversity and human health.

Development which would result in, or significantly contribute to, unacceptable levels of pollution, will not be permitted.

Policy NR6: Development Sensitive to Pollution

Development which would be sensitive to adverse levels of noise, air, light and other pollution, will not be supported where such conditions exist, or are in prospect, and where mitigation measures would not afford satisfactory protection.

Policy NR7: Air Quality Management Areas

The local authorities are required to:

(a) review and assess air quality and, where necessary, declare Air Quality Management Areas;

(b) work towards improving air quality in Air Quality Management Areas through preparation of an Air Quality Action Plan.

The scale and character of development in, or adjoining such areas, should be controlled so as not to adversely affect this improvement.

The Kent and Medway Structure Plan also includes Policy D01 which is of particular relevance to Dover:

Policy DO1: Dover

Development in Dover should strengthen and diversify its economy and promote environmental enhancement. This will include support for

pharmaceuticals research and development in the Sandwich Corridor at Richborough and implementation of strategic employment land at Dover (White Cliffs Business Park). Appropriate expansion and diversification of the Port of Dover and mixed-use redevelopment of the Dover Town Investment Zone will also be supported.

The economic prosperity of Deal and Sandwich will continue to be supported as will their role as service centres for the East Kent coast.

Proposals supporting the regeneration of the former East Kent Coalfield sites primarily involving the provision of new employment and recreational uses should be continued.

The mixed-use expansion of Aylesham, incorporating provision for up to 1,100 dwellings by 2016 is supported.

The housing provision for Dover District (Policy HP1) includes:

(a) a minimum of 300 dwellings for the post 2006 period to be accommodated at a location, or locations, that can support and offer good accessibility to business growth to the north of Sandwich;

(b) 900 dwellings for the post 2011 period at Dover and/or Deal on sites to be identified through Local Development Documents.

Improvements to transport infrastructure and accessibility should include early implementation of the East Kent Access proposals in the A256 corridor, A2 improvements between Lydden and Dover, rail access to the Port of Dover, and rail infrastructure and service improvements between Dover and Canterbury, Thanet and Ashford.

3.11 Route Management Strategies

Route Management Strategies are *"techniques developed by the Highways Agency to provide a framework for managing individual trunk routes as part of wider traffic networks. RMS's will interlock with Local Transport strategies (set out in Local Transport Plans) within the context established by Regional Planning guidance (Ref para 3.1.34 "A New Deal For Transport: Better for Everyone")"*

In the Dover area, there are two strategies of relevance: the M25 – Dover M20/A20 Route Management Strategy and the draft A2/M2/A249 Route Management Strategy.
Junction safety and capacity -

In the M20/A20 Route Management Strategy relevant issues identified with respect to Dover include junction safety and capacity along the A20 Townwall Street, Dover, issues of air quality, effects of Operation Stack and access and egress to Eastern Docks.

In the A2/M2/A249 Route Management Strategy relevant issues identified with respect to Dover include problems of egress from Dover Eastern Docks on to A2/A20 roundabout and air quality issues. Possible actions with respect to air quality are considered to be dualling of the A2 from Lydden to Dover.

3.12 South Coast Multi-Modal Study (2002)

The South Coast Corridor Multi Modal Study aims to identify and investigate congestion, safety and environmental problems of transport along the south coast between Southampton and Thanet (Kent), and propose measures aimed at resolving these problems and improving access to and between regeneration areas and other areas of economic activity.

With respect to Dover, the Study recognises the congestion issues on the Port approach trunk roads and the capacity issues on the A2 Lydden to Dover. The Study recommends that capacity improvements be made through dualling on the A2 Lydden to Dover, with estimated costs of £24.6million.

3.13 Draft South East Plan (Regional Spatial Strategy) (2006)

The South East England Regional Assembly (SEERA) submitted the draft South East Plan to Government on 31st March 2006. The draft Plan provides a framework for the region for the next 20 years to 2026. Specifically, with respect to Dover, the number of dwellings proposed for Dover district is 6,100 over 20 years, of which the majority are to be located at Dover itself. In addition, new employment locations will be provided if required to keep employment and housing growth in balance in Dover.

Proposals are made within the draft Plan to assist with the development proposals:

- A2 Lydden-Dover, Road/Junction Improvement or new link
  Lead Authority Highways Agency, Cost (£80m), 2011-16
- A20 Townwall Street: Dover, Road/Junction Improvement or new link
  Lead Authority Highways Agency, Cost (£25m), 2011-16

With respect to the Port of Dover, the key issue identified for Dover is to ensure that landside infrastructure supports expected growth in port activity. The reintroduction of a rail link and rail freight operation in the Western docks, together with securing access to CTRL domestic services, need to be secured. Appropriate development of the Port of Dover will be supported to enable growth of freight and passenger traffic. Any such development outside the existing harbour will be subject to the reinstatement of the rail link to the Western Docks to enable a significant proportion of freight to reach the port by rail.

The Panel Report that recommends any changes to the South East Plan is expected to be published in September 2007.

4 FINANCING

Direct measures proposed for the A20 Townwall Street AQMA are the responsibility of the Highways Agency and will be required to be assessed in more detail for their cost-effectiveness through feasibility studies. Additional direct measures are proposed by the Dover Harbour Board and these too will be required to be assessed in more detail for their cost-effectiveness through feasibility studies.

"Indirect general measures to improve air quality in the area will be funded by Dover District Council, such as air quality monitoring and promotional activities, or by KCC through the LTP process. As part of the 2nd Kent LTP 2006/7 – 2010/11 formulation, a number of provisional funding bid items have been identified in the District of Dover that are of relevance and tie in with Action Plan measures to improve air quality in the area:

- Quality Bus Partnership and bus priority measures
- New cycle routes
- Implementation of emerging walking strategy
- Support for school travel plans
- Support for workplace travel plans
- Improvements to railway stations and interchanges (access)

Historically funding bids for Public Transport, Smarter Choices (Safer Routes to School etc), Cycling and Walking measures have been successful and the monies made available through the annual LTP settlement process. In the light of the findings of the review and assessment of air quality Dover District Council will work together with KCC to review and reaffirm current bid measures and to consider additional ones as necessary in an effort to secure further improvements in air quality".

5 CONSULTATION

Under Schedule 11 of the Act, Local Authorities are required to consult on their draft LAQM Action Plan. It is important for the success of the Action Plan to have involvement by all local stakeholders including local residents, community groups and local businesses in the drawing up the Action Plan in addition to their active participation in achieving the action plan measures. The Action Plan has been drawn up for consultation with relevant environmental health and transport representatives from Dover District Council, the Highways Agency, Kent County Council and Dover Harbour Board.

The following is a list of statutory and non-statutory consultees to which this Final Plan will be sent:

- The Secretary of State
- The Highways Agency
- The Environment Agency
- Kent County Council
- Primary Care Trusts
- Dover Harbour Board
- Dover Issues Liaison Group
- DDC Councillors and Officers
- Neighbouring local authorities
- Local residents within and bordering the AQMAs
- Relevant local businesses, community groups and forums
- Other relevant local stakeholders

All comments from both Statutory and non-statutory consultees received on the draft Action Plan have been included as Appendix 1. Detailed responses from major stakeholders, Highways Agency, Dover Harbour Board and Kent County Council have resulted in some changes to the text of the report. Issues raised within the responses that are concerned with control of traffic routes into Dover are complex and are outside the direct control of the Council, although the Council will continue to liase with these major stakeholders to progress the Action Plan wherever possible.

6 PROPOSED MEASURES

Although there are two trunk routes that serve Dover, the M20/A20 and the A2/M2/A2, the M20/A20 is the main strategic route for Port traffic. The A20 runs through the town along the A20 Townwall Street, which results in local and port traffic mixing, causing congestion problems and is a barrier to regeneration in the area. There are increasing congestion problems along the A20 Townwall Street due to HGVs heading to the Port and, more generally, growth in port related traffic and local traffic growth. At times, HGVs arrive at the Port at a rate greater than which they can be handled, resulting in potential exceedences of the Port's storage capacity and queuing along the A20 (in extreme cases for several miles). With expected traffic growth in the area (Port related and locally), the situation will get worse with time without intervention. The Dover Issues Liaison Group, comprising of Dover District Council, the Highways Agency, Kent County Council, Dover Harbour Board and Kent Police has been formed to address this issue and their proposals are considered further below with respect to direct measures to improve air quality in the AQMA.

The two sections below outline the proposed direct measures for the A20 Townwall Street AQMA and indirect measures to improve air quality throughout the District.

Direct measures to reduce NO_2 concentrations within the AQMA concentrate on the dominant sources of emissions – road traffic (notably HGV movements).
Direct measures incorporate the following themes:

- Theme 1: Improvements to A20 Townwall Street
- Theme 2 Diversion of traffic to A2/M2 Corridor
- Theme 3: Improvements to Port of Dover operations

Indirect measures target those general emissions within an area that aim to further reduce background levels of pollution above and beyond that likely to be achieved by existing national and international agreements. Indirect measures incorporate the following themes:

- Theme 1: Reduction of the need to travel by car
- Theme 2: Encouragement of public transport
- Theme 3: Reduction of background concentrations

6.1 Proposed Direct Measures for the A20 Townwall Street AQMA

The following provides the outcome of discussions with Dover District Council, Highways Agency, Kent County Council and Dover Harbour Board representatives with respect to a number of action plan measures that have been proposed to reduce NO_X/NO_2 emissions in the AQMA in pursuit of the NO_2 annual mean Air Quality Objective.

Theme 1: Improvements to A20 Townwall Street

Action 1: Improved traffic management through junction improvements

The Woolcomber Street and Russell Street junctions are signalised junctions within the Townwall Street AQMA. The signals result in stop/start movements of HGVs heading for the Port, and traffic queuing, which exacerbates the air quality issues. Both junctions border the proposed St James's redevelopment area. This development has been subject to an environmental impact assessment, and with respect to air quality it is expected that the resulting traffic growth would lead to a slight worsening of air quality in the AQMA (<1µg/m^3). However, the scheme proposes to substantially reduce the amount of traffic using the Russell Street junction and modify traffic flows there.

The Woolcomber Street junction would not be improved as a result of the redevelopment proposals. The Dover Pride Regeneration Strategy action plan suggests that traffic should be pulsed through this section of road, and some improvements may be possible by rearranging the SCOOT system. The Draft South East Plan (2006) also refers to the A20 Townwall Street junction improvements, but as a longer-term proposal (2011-2016).

The Highways Agency are investigating improvements to signalling timings along the A20 Townwall Street, using a micro-simulation VISSIM traffic model, paid for and developed by the Dover Harbour Board and subsequently shared with the Highways Agency for further development and testing (*see Consultation Appendix)* which includes the Port and A20/A2 trunk roads in Dover.

Objective	Improve traffic flows along A20 Townwall Street and reduce stop/start movements of HGVs heading for the Port.
Responsibility	Highways Agency/Kent County Council/Developer
Air Quality Impacts	Moderate. Improvements to flows through junctions are expected to have air quality benefits by reducing stop/start movements and idling emissions.
Non Air Quality Impacts	Improved journey times
Perception	Likely to be perceived as positive as reduced congestion.
Cost-effectiveness & Feasibility	Low cost, high feasibility, high cost-effectiveness
Timescale	Short-term

Theme 2: Diversion of traffic to A2/M2/A2 Corridor

Action 2: Dualling of the A2 between Lydden and Dover

The main strategic route to the Port of Dover is currently designated along the M20/A20 corridor and is signed as the priority route, being part of the Trans European Network. The other main route to Dover (and also forming part of the Trans European Network is the A2 but it has a single carriageway between Lydden and Dover which is considered to be a barrier to Port bound traffic using this route. There are also considerations to major improvements schemes along the A2 in north Kent in the short to medium term, which are likely to cause delays to traffic, the capacity of the A2 through the Thames Gateway area, and air quality problems in the Dartford and Gravesham areas in relation to the A2. A number of recent policy documents, including the South Coast Multi-Modal Study, Draft South East Plan and Kent & Medway Structure Plan have recommended that the A2 between Lydden and Dover be upgraded to dual carriageway. The District Council has long lobbied for this and will advocate dualling through the emerging LDF. However, to date neither the South East Regional Assembly nor the Secretary of State has recommended to the Highways Agency that this scheme be given a high priority. Dover District Council considers that a stronger case could be made if more account was made of the regeneration benefits of the scheme to the area. Allied to this, there is an emerging recognition through the Eddington Report and Ports Review that nationally important ports, such as Dover, should be served by an appropriate standard of infrastructure. This view is supported by Kent County Council and Dover Harbour Board (*see consultation appendix)*, and Kent County Council has commissioned Jacobs to reassess economic benefits of the scheme, although this needs to be revalidated in the context of emerging development proposals, including the Western Docks.

Objective	Improve the A2 in its approach to Dover to enable more Port bound traffic to use this route
Responsibility	Highways Agency
Air Quality Impacts	High; impact dependant of the %shift of traffic to the A2/M2/A2 route and would be reliant on strategic signage improvements also being undertaken
Non Air Quality Impacts	Reduction in congestion on A20 Townwall street. Improved journey times for local traffic; potentially longer journey times for some port traffic.
Perception	Likely to be perceived as positive by local stakeholders, but may be perceived as negative by freight operators using the port
Cost-effectiveness & Feasibility	Costs: High, feasibility: under consideration, cost-effectiveness: moderate
Timescale	Long-term (2011 – 2016)

Action 3: Strategic Signage Improvements

The current signing regime directs Port traffic onto the M20/A20 corridor. Vehicles heading for the Port of Dover from the M25 (whether clockwise or

anti-clockwise) are therefore signed to pass through Dover along the A20 Townwall Street. Dover District Council, Kent County Council and Dover Harbour Board support the view that the strategic signing regime should be changed to direct port traffic to use the A2 to reduce congestion and air quality issues on the A20 Townwall Street. As discussed previously, there are capacity issues and air quality considerations with respect to the A2 in the Thames Gateway area. Diverting port traffic onto the A2 may therefore have implications for other areas in the County, albeit that there may be possibilities to use this route given that the arrival times at Dover may not necessarily compete with peak traffic use at the west of the county. However, it may be possible to use both routes to more effectively manage port traffic, such as by using variable message signage to divert traffic to the A2 when congestion issues are occurring on the A20 or vice versa, or using the A2 as a strategic route to the Port for M25 clockwise port bound traffic at off-peak hours only. Changes in the signing regime to divert traffic onto the A2 may have to occur in conjunction with A2 Lydden to Dover improvements.

The Highways Agency (through consultants Parsons Brinkerhoff) has run scenarios using the micro-simulation VISSIM model for the Port of Dover and surrounding trunk roads which consider diversion of traffic onto the A2. The model predicts a worsening of congestion issues in the vicinity of the Port, unless the Eastern Docks Roundabout and internal port layout are addressed.

The Highways Agency have commissioned an A2/M2/A2 route feasibility study to consider in detail the impacts of using the A2 as an alternative route, and the initial phase is currently underway. It is expected that the full feasibility study will be completed by the end of this financial year.

Objective	To change strategic signage regime to relieve traffic congestion on the A20 Townwall Street, by diverting traffic to the A2/M2/A2 corridor
Responsibility	Highways Agency
Air Quality Impacts	High; when combined with strategic signing improvements
Non Air Quality Impacts	Reduction in congestion on A20 Townwall street. Improved journey times for local traffic; potentially longer journey times for some port traffic.
Perception	Likely to be perceived as positive by local stakeholders, but may be perceived as negative by freight operators using the port
Cost-effectiveness & Feasibility	Costs: moderate, feasibility: under consideration, cost-effectiveness: moderate
Timescale	Long-term

Theme 3: Improvements to Port of Dover Operations

Action 4: Improvements to Eastern Docks Layout

Dover Harbour Board has altered the layout of Eastern Docks significantly in recent years to improve traffic throughput in anticipation of expected traffic growth. Eastern Docks and the surrounding trunk road network (A20/A2) have been incorporated into the micro-simulation VISSIM traffic model. This model has been run for future years, taking into account the projected growth to establish what improvements in the Port layout can be made to improve flows.

Dover District Council and Dover Harbour Board are reviewing the findings of the modelling work, to establish appropriate means of reducing traffic impacts on A20 Townwall Street. The DHB considers that the focus of attention should be directed towards the more effective use of both routes (*see consultation appendix).*

Objective	To improve traffic movements within the port and subsequently reduce congestion on the A20 Townwall Street
Responsibility	Dover Harbour Board
Air Quality Impacts	Low
Non Air Quality Impacts	Reduction in congestion on A20 Townwall street. Improved journey times.
Perception	Likely to be perceived as positive
Cost-effectiveness & Feasibility	Costs: low, feasibility: high, cost-effectiveness: high
Timescale	Short to medium term

Action 5: New Dover Eastern Docks Exit Road to A20 Townwall Street

The current Eastern Docks A2(T) Jubilee Way/ A20(T) Townwall Street junction layout limits the potential to provide greater capacity for vehicle throughput. Dover Harbour Board, in the light of predicted growth at the Port of Dover, have proposed a direct exit slip road connection to the A20(T) Townwall Street west (town side) of the existing junction. This would supplement the existing exit onto the roundabout and distribute the exiting flows in such as way as to spread the load and alleviate pressure on the existing roundabout junction.

Dover Harbour Board commissioned Jacobs to undertake an air quality assessment of the proposed exit road scheme. This study used the AAQuIRE dispersion model to assess likely impacts and the study concluded that there would be negligible impacts with respect to local air quality.

The Highways Agency (through consultants Parsons Brinkerhoff) has incorporated this proposal into the micro-simulation VISSIM model for the Port of Dover and surrounding trunk roads. While the air quality outputs of the model cannot be taken as read, as they are only indicative, the VISSIM model runs showed that there would be an increase in the average speed along the A20 Townwall Street eastbound towards the Port. As the main issue in respect to queuing traffic is on the eastbound approach to the Port, the scheme is expected to have local air quality benefits through improved traffic flows and reduced congestion at the Eastern Docks roundabout.

The Exit Road proposal is subject to approval by the Highway Agency and a report on the proposal has been submitted to Dover District Council. The Council has made a formal response to the Highways Agency.

Objective	To reduce congestion at the Eastern Docks roundabout, and subsequent traffic queuing on A20 Townwall Street through a new exit road
Responsibility	Dover Harbour Board
Air Quality Impacts	Low
Non Air Quality Impacts	Reduction in congestion eastbound. Improvements in journey times.
Perception	Likely to be perceived as positive by majority of local stakeholders, once constructed.
Cost-effectiveness & Feasibility	Costs: low, feasibility: high, cost-effectiveness: high
Timescale	Short term

Action 6: Possible Development of a Buffer Zone

At times, HGVs arrive at the Port at a rate greater than which they can be handled, resulting in exceedences of the Port's storage capacity and queuing along the A20 Townwall Street (in extreme cases for several miles along the A20). With expected traffic growth in the area it is likely that the situation will worsen. One of the options under consideration by Dover Harbour Board is the development of an operational buffer zone outside Dover to manage the HGV movements when there is insufficient capacity within the Port area.

No specific sites have been agreed as yet, but the proposal would be to develop a site adjacent to the A20 (possibly at Aycliff) and a smaller site on the A2, as the A20 is the main access route. These would be interrelated, with traffic released as capacity becomes available, and would require traffic regulation at the access points to the trunk roads. The buffer zone would allow for the traffic to be managed more efficiently, so that queuing along the A20 Townwall Street would not occur.

Prospective sites are in protected landscape areas outside Dover and which, particularly to the west adjacent to the A20, are of national importance. Dover Harbour Board has commissioned RPS consultants to assess whether the buffer zone concept would be feasible and whether such a scheme would be likely to gain permission, probably after a Public Inquiry. The initial study was anticipated in Autumn 2006. It is understood, however, that this development will not proceed at this time given Dover Harbour Boards intentions to develop the Western Docks.

Objective	To relieve congestion at the Eastern Docks roundabout and A20 Townwall Street, due to HGV port bound traffic, by more effective traffic management from dedicated buffer zones
Responsibility	Dover Harbour Board
Air Quality Impacts	High

Non Air Quality Impacts	Reduction in noise and congestion within AQMA
Perception	Likely to be perceived as positive by local stakeholders (although dependant on the site chosen); may be less so for freight operators
Cost-effectiveness & Feasibility	Costs: moderate, feasibility: moderate, cost-effectiveness: moderate
Timescale	Medium term

Action 7: Possible Port Expansion to Western Docks

Ferry freight traffic is considered to be the backbone of the Port of Dover's activities and this is expected to grow significantly over the medium to long term (potential doubling of freight vehicles in the next 30 years). However, there is little scope to increase the Eastern Docks Ferry Terminal for future traffic growth, due to land and ship manoeuvring constraints. Dover Harbour Board has therefore proposed that a new ferry terminal be developed in the Western Docks with direct access to the A20/M20 and up to four new ferry berths. This expansion to the Western Docks could be developed in conjunction with the buffer zone concept to ensure the impact of port traffic on the town is minimised and regeneration is not hindered.

The implications of these possible port developments for the town of Dover are mixed. Additional shipping traffic will inevitably mean additional road traffic for both passengers and freight, although the impact of the road traffic could be reduced by the suggested strategic routing to and from the M25 and some of the additional freight traffic could be diverted to rail if the new rail link is constructed into the Western Docks. There could be some relocation of the existing port activities between the Eastern and Western Docks to achieve a better balance of land and sea generation.

The expansion of Ro Ro capabilities within the Western Docks **could** enable changes in the strategic signing to the port.

For instance, the traffic could be split with traffic using Eastern Docks being directed to the A2/M2/A2 and traffic using the Western Docks being directed to the M20/A20. This would lead to a significant reduction of traffic on the A20 Townwall Street, and a significant impact on air quality in the AQMA.

Objective	Provide increased capacity for Ro-Ro capabilities in the Western Docks
Responsibility	Dover Harbour Board
Air Quality Impacts	Low (*see consultation appendix)*
Non Air Quality Impacts	Reduction in noise and congestion along A20 Townwall Street
Perception	Likely to be perceived as positive, as an overall package of improvements planned within the Port

Cost-effectiveness & Feasibility	Costs: High, feasibility: moderate, cost-effectiveness: low
Timescale	Long term

Action 8: Transfer of Freight from Road to Rail

There are currently no rail freight services in the district, with the Channel Tunnel near Folkestone providing the only facility in the area. There is an ongoing consideration of the feasibility of reinstating a rail link into the Western Docks. Kent County Council and Dover District Council continue to work with Dover Harbour Board and the rail authorities to try to realise the potential that exists for introducing rail freight operations at the Port of Dover.

The Freight Intermodality and Exchange on Seas and Straits in Europe (FINESSE) project was the result of an innovative transnational partnership between ports and regional authorities in Belgium, France and the UK, supported by the European Regional Development Fund's. The project reached completion in February 2006. The FINESSE project focused on the potential for shifting freight from road to rail and sea. The partnership also considered a transnational policy statement to inform and influence decision makers at regional, national and European levels. Specifically for Dover, the FINESSE project is looking to introduce rail/ferry/rail options across the English Channel to supplement freight movement through the Channel Tunnel. Additionally the Port of Dover along with Kent County Council and South East England Development Agency have continued the investigation of rail potential at the port and invested in a new part-European funded project called IMPACTE (Intermodal Port Access & Commodities Transport in Europe) (*see consultation appendix).*

Development of rail freight services in Dover will be an important consideration to ensure the sustainable growth of Port activities, in the light of freight traffic through the Port potentially doubling in the next 30 years. However, the current view is that although this option will help reduce the rate of growth of road based freight, it will not take sufficient freight off the road to relieve the current and future traffic impacts.

Objective	To transfer a proportion of HGV traffic from road to rail
Responsibility	KCC/DDC/Dover Harbour Board/rail operators
Air Quality Impacts	Moderate
Non Air Quality Impacts	Reduced noise and congestion; safer roads.
Perception	Likely to be perceived as positive by local stakeholders; may be less so by freight operators
Cost-effectiveness & Feasibility	Cost: high, feasibility; moderate; cost-effectiveness: moderate
Timescale	Long-term

Direct Measures considered but dismissed on the grounds of cost-effectiveness and feasibility

Low Emission Zone (LEZ) or Clear Zone

A Low Emission Zone (LEZ) is a geographic zone defined for an area where vehicles of an acceptable emissions standard (normally Euro III) can enter and move around. The concept is held widely as a way of achieving air quality objectives within large urban area where economies of scale can be achieved with respect to set-up and operating costs. Further consideration to the implementation of an LEZ within Dover is dismissed on the grounds of cost alone.

A Clear Zone is a defined urban area, usually a City, which exploits new technologies and operational approaches to improve quality of life and support economic growth, whilst minimising the adverse impacts of its transport systems. The implementation of a Clear Zone within Dover is dismissed on the grounds of cost-effectiveness.

Road User Charging or Workplace Parking Levy

The Transport Act 2000 gave local authorities powers to introduce road user charging or workplace parking levy schemes. The revenue generated from such schemes would be used to improve local transport in the area.

The costs of introducing a road-charging scheme can be offset by the revenue that is generated. Area wide charging is likely to be more costly than a designated route. The feasibility of area wide schemes is being considered in the regional Multi-modal Studies and it is unlikely that they will be introduced in the short term to achieve the air quality objective. Local schemes within Dover are likely to be controversial and unpopular with voters and have therefore been dismissed on the ground of feasibility.

Based on charging workers for parking at their place of work, the implementation of a workplace parking levy could reduce the number of private vehicles entering Dover. The traffic entering the Dover AQMA is largely related to Port of Dover through traffic and as such a work place parking levy would penalise businesses within Dover without tackling the main air quality issues. In addition, the proposal is likely to be controversial and unpopular with voters and has therefore been dismissed on the ground of feasibility.

Roadside Emissions Testing

Under new powers of authority Roadside Vehicle Emissions (Fixed Penalty) Regulations 2002, Local Authorities are able to undertake roadside emissions testing of vehicles. The aim is to identify those vehicles that make a disproportionate contribution to emissions through poor maintenance with on-the-spot fines for those that fail. The scheme of a formal roadside emissions testing programme is not considered viable for stand-alone authorities and has therefore been dismissed as a possibility for inclusion in the current action plan. The use of voluntary vehicle emissions testing as a promotional tool is being explored through the Kent and Medway Air Quality Partnership.

Idling Engine Emissions

The Road Traffic (Vehicle Emissions)(Fixed Penalty) (England) Regulations 2002 permit all English local authorities to take action against drivers who leave their vehicle engines running unnecessarily when parked. The local

authority can issue a fixed penalty (£20) to any driver blatantly running their engine unnecessarily and who refuses all reasonable requests to switch off.

Idling emissions from parked vehicles are not considered a significant issue in the AQMA to warrant introducing specific measures with necessary resource implications. The proposal has therefore been dismissed on the ground of cost-effectiveness.

A Summary of the direct measures for the AQMA is shown in Table 5 (Page 39)

The ranking of options has been based on professional judgement through the assessment of a number of considerations; including the costs and benefits of all the options, feasibility and acceptability, and whether they will achieve the Air Quality Objective. It is likely that the NO_2 annual mean Objective will only be achieved through a combination of measures.

At this draft stage the impact assessment is qualitative. Quantitative air quality impact assessment of the principal measures will be undertaken when relevant information on the detailed schemes becomes available.

The costs are provided as:

- 'Low' (up to £1 million);
- 'Moderate' (between £1 million – £5 million); and,
- 'High' (greater than £5 million).

The benefits are provided as:

- 'Low' (<0.2µg/m^3);
- 'Moderate' (between 0.2 – 1 µg/m^3); and,
- 'High' (greater that 1 µg/m^3).

6.2 Proposed General District-wide Measures to Improve Air Quality

There are general measures that can be implemented by Dover District Council, or which Dover District Council can feed into, aimed at improving the air quality throughout the District. These will reduce background pollution concentrations and indirectly will work towards achieving the Air Quality Objectives within the AQMA.

Theme 1 Reduction of the need to travel by car

1. Transport measures

Sustainable Travel Plans

A Travel Plan is a general term for a package of measures tailored to the needs of an organisation to introduce greener, cleaner and sustainable travel choices and reduce the reliance on the car. It involves the development of a set of mechanisms, initiatives and targets that together can enable an organisation to reduce the impact of travel and transport on the environment. This will include the consideration of alternative fuels.

Council Travel Plan – Dover District Council does not currently have a Council Travel Plan to help manage and reduce the Council's impact on the environment and improve travel choices for staff. However, the Council offices within the White Cliffs Business Park are part of a phased development programme within the area, which will be expected to establish Travel Plans. The Council will therefore be developing their Travel Plan with other employers within the White Cliffs Business Park.

School Travel Plans – The LTP for Kent 2006-11 has a target LTP4 Mode Share of Journeys to School – to increase the proportion of pupils travelling to school by sustainable transport modes by 10% (Secondary Schools) and 5% (Primary Schools).

Measure 1: Dover District Council will encourage Council Travel Plan Opportunities and seek to facilitate uptake of sustainable modes of transport

Measure 2: Dover District Council will continue to work together with Kent County Council to encourage the uptake of Employer and School Travel Plans within the District.

Cycle and Walking Strategies

Regional strategies are in place to improve cycling and walking facilities throughout Kent and increase uptake.

DDC is working with KCC to progress cycle route implementation in the area to help satisfy the 2nd Local Transport Plan aspirations. The Transportation Team in the Kent Highways Services East Kent Divisional Office has been working on the consultation draft of a Cycling Plan for the Dover District. Final draft is due to be presented to the Dover Joint Transportation Board in November, with the intention of full public consultation in late 2007 / early

2008.

Cycling scheme proposals will be promoted for funding as part of the 2nd LTP process including new cycle routes identified by the Dover District cycle forum - North Deal to Betteshanger Country Park - Deal seafront to Mongeham (Phase 2); A258 Sholden New Road to Church Lane - A258 Mongeham Road; Sandwich to Betteshanger Country Park - River to Dover Town Centre (Phase 1); River to Dover Town Centre (Phase 2); Walmer School to NCN1 Walmer Seafront; and NCN1 Deal Seafront (Phase 1).

The 2nd LTP also contains a number of bid proposals to implement the emerging Walking Strategy. These include provision of dropped kerbs and crossing points for key links to town centres (including new lighting) at: Liverpool Road, Walmer; Denton, Guildhall, Wingham; Reach Road, St Margarets; Cauldham Close, Capel-le-Ferne, Sea Street, St Margarets; Strakers Hill, East Studdal; and Westcourt Lane, Shepherdswell.

Measure 3: DDC will continue to work with KCC to improve the facilities for cycling and walking within Dover and encourage greater uptake.

2. Land Use Planning

Section 3.1 summarises the main Dover Local Plan (2002) policies which will contribute to securing air quality improvements. The Kent & Medway Structure Plan contains three policies specifically in relation to air quality (considered in more detail in section 3.10), which will provide additional protection with regards to air pollution for it to be applied for the purposes of development control. These will be considered within the emerging Dover District Council LDF.

Measure 4: DDC Environmental Health will continue to work closely with Planning to ensure that air quality is taken into account in the planning process when located in or close to the AQMA or in areas marginally below air quality objectives.

Land use planning has a key role in delivering sustainable transport systems within the area by influencing the location, scale, density, design and mix of development and encouraging alternative modes of travel. The Local Plan requires major development which would significantly increase travel to provide green transport plans.

Measure 5: DDC will continue to work together with developers to improve sustainable transport links serving new developments.

To provide support to local plan policies, the development of supplementary planning guidance for air quality assessments of developments and, in particular, for development which may impact on an AQMA is recommended in the Policy Guidance LAQM.PG (03). Dover District Council currently uses the available NSCA guidance for assessing air quality impacts of developments. The Kent & Medway Air Quality Partnership, of which Dover District Council is a member, are considering developing a County wide planning guidance document for air quality and development control.

Measure 6: DDC will develop, through the Kent & Medway Air Quality Partnership, supplementary planning guidance to assist with air quality assessments of development proposals

Theme 2 Encouragement of Public Transport Uptake

1. Improvements to Bus Services

The 2nd LTP includes proposals to increase bus patronage across Kent and improvements to bus services District-wide are best likely to be achieved through a Quality Bus Partnership with the relevant transport provider. Measures to improve bus services will focus initially on the existing network of bus stops and improving accessibility through the provision of low floor buses, with associated physical works. In the future added bus priority measures could include fitting transponders to register the bus presence at traffic signal junctions and to provide real-time information on service arrivals at key bus stops - with the route corridor (61) through Dover town centre as a potential pilot service. This is expected to improve both bus service reliability and modal shift in favour of the bus.

2. Improvements to Railway Services

The 2nd LTP includes proposals to improve access to railway stations, interchanges and links to towns (urban and rural) within the District. This is to ensure increased access to services and encourage use of more sustainable transport modes.

Measure 7: DDC will continue to work together with KCC to improve public transport services and encourage the use of more sustainable transport modes

Theme 3: Reduction of background concentrations

1. Local Air Quality Management and Pollution Control

Air quality monitoring

The air quality-monitoring network in DDC provides more accurate information and understanding of air quality within the District. Continuous monitoring stations are installed at four sites within the District which monitor SO_2 (two sites), NO_2 (1 site) and PM_{10} (1 site) concentrations so that modelled predictions can be verified and the progression of action plan measures can be monitored and assessed. This is supplemented by NO_2 passive diffusion tubes, a large number of which are within the AQMA. DDC is also part of the Kent and Medway Air Quality Monitoring Network, which was set up in 1997 and provides information on a wide range of pollutants throughout the County.

Measure 8: DDC will continue their commitment to local air quality monitoring within the District to ensure a high standard of data is achieved to assess against air quality objectives

Promotion and Education

It is important that information on air quality is provided in a clear and accessible way. The Council web site http://www.dover.gov.uk/environmental-health/air_quality.asp provides details on air quality within the District and LAQM Review and Assessment Reports are available for viewing.

Measure 9: DDC will make details of the Action Plan measures and annual progress reports available on the Website to ensure broad access to the consultation and implementation process.

DDC is a member of the Kent and Medway Air Quality Partnership, which was formed in 1992. The members of the Partnership are shown below.

The major aims and objectives of the Partnership are:

- To facilitate a co-ordinated approach throughout Kent and Medway to the Local Air Quality Management (LAQM) obligations placed on local authorities under the Environment Act 1995.
- To compile, update and maintain an Emissions Inventory of air pollution sources in and around Kent, to assist with the LAQM process.
- To comment on and influence the economic, planning and transport policies within the county so that air quality issues are properly considered and dealt with.
- To gain an understanding of the health implications associated with poor air quality and the extent to which air quality threatens the health of Kent and Medway's communities.
- To work with national agencies, neighbouring authorities and European partners to promote an awareness of air quality issues and to participate in joint initiatives to further the knowledge and understanding of air quality issues.
- Liaise with DEFRA and government bodies to assist with the implementation of the National Air Quality Strategy.

Measure 10: DDC will continue to work together the Kent and Medway Air Quality Partnership on promotional activities to raise the profile of air quality in Dover

Pollution Control

Prescribed Industrial Processes are regulated by DDC and the Environment Agency under the Environmental Protection Act 1990 Part I A & B and subsequent Pollution Prevention and Control Regulations 2000. There are 36 prescribed B Processes in Dover regulated by DDC and four A1 Processes (in relation to Pfizer Ltd) regulated by the Environment Agency.

With regard to nuisance emissions from unregulated processes, Statutory Nuisance is enforced by Environmental and Public Health Services under the Environmental Protection Act 1990 Part III and this controls smoke, dust, fumes or gas emissions from commercial and domestic premises which are causing a nuisance or are prejudicial to health. DDC has an Environmental Health Enforcement Policy in place to ensure that, where the Local Authority has jurisdiction, effective measures are enforced against persons responsible.

Energy Management

o **Domestic energy use**

DDC are members of KEEP, (**K**ent **E**nergy **E**fficiency **P**artnership) this partnership includes Kent local authorities and (KEC) the **K**ent **E**nergy **C**entre who promote increased energy efficiency for householders in the District. A rolling programme of home energy surveys is sent to householders. This data is used as the basis for our statutory annual HECA return, together with marketing opportunities for grants and discount schemes for residents. Each householder will receive a bespoke energy advice report that is specific to his or her home, and the report will recommend improvements that will reduce energy usage, and help reduce the rate of adverse climate change.

DDC has adopted the KHAWS **K**ent **H**ealth & **A**ffordable **W**armth **S**trategy (2005 – 2008) in partnership with all Kent local authorities, the Kent Energy Centre, NHS Trusts and Utility companies. The strategy is aimed at reducing fuel poverty by providing affordable warmth in line with the Government's *UK Fuel Poverty Strategy*. On behalf of all Kent local authorities including DDC, which aims to tackle fuel poverty and promote energy efficiency measures. There is a one-stop shop provided by KEC **K**ent **E**nergy **C**entre, so that householders can receive information and advice on grants and discount measures to help save energy and provide affordable warmth. All these measures will lead to improvements in domestic energy efficiency throughout the District.

o **Building Control**

Building Control can contribute to the development of policies for air quality improvement through the promotion of emission-reducing technologies in new

developments and buildings. The Council's Building Control Service has policies in place to improve energy efficiency in buildings, as described below.

The Building Control Service has a statutory responsibility to ensure that new building works within the District meet minimum technical standards in relation to health, safety, welfare and energy conservation, as prescribed under the Building Regulations 1991. The Legislation sets out substantive requirements and technical guidance to achieve minimum standards. This technical guidance is contained in Approved Documents giving general guidance as well as practical guidance about some of the ways of meeting the requirements of the Regulations. Approved Document L, "Conservation of Fuel and Power" requires reasonable provision to be made for the conservation of fuel and power in buildings by:

- limiting the heat loss through the fabric of the building;
- controlling the operation of the space heating and hot water systems;
- limiting the heat loss from hot water vessels and hot water service pipe work;
- limiting the heat loss from hot water pipes and hot air ducts used for space heating; and
- installing in buildings artificial lighting systems, which are designed and constructed, to use no more fuel and power than is reasonable in the circumstances and making reasonable provision for controlling such systems.

Revisions to this document were introduced in April 2002. The key changes are:

- much more stringent requirements with regard to the thermal insulation of all building elements;
- new requirements in respect of controls, boilers and lighting;
- a separation of requirements in respect of domestic and commercial buildings; and with effect from October 2002, the testing of structures for air leakage.

Measure 11: DDC will continue to work together with the Kent Energy Centre to promote and implement energy efficiency measures in Dover District

A summary of the proposed general District-wide measures to improve air quality is provided in Table 6 (Page 40).

Table 5 Summary of direct measures proposed for the AQMA

Action	Description	Organisation responsible	Date to be achieved by	Cost	Air quality improvement in AQMAs	Other potential impacts	Rank (based on cost-effectiveness)
1	Improved traffic management through junction improvements	Highways Agency/Kent County Council/Developers	Short term	Low	Moderate	Improvements in journey time	1
2	Dualling of the A2 between Lydden and Dover	Highways Agency	Long term	High	High	Improved journey times for local traffic; potentially longer journey times for some port traffic.	3
3	Strategic Signage Improvements	Highways Agency	Long term	Moderate	High	Improved journey times for local traffic; potentially longer journey times for some port traffic.	2=
4	Improvements to Eastern Docks Layout	Dover Harbour Board	Short to medium term	Low	Low	Improvements in journey time	4=
5	New Dover Eastern Docks Exit Road to A20 Townwall Street	Dover Harbour Board	Short term	Low	Low	Improvements in journey time	4=
6	Development of a Buffer Zone	Dover Harbour Board	Medium term	Moderate	High	Reduction in noise and congestion	2=
7	Port Expansion to Western Docks	Dover Harbour Board	Long term	High	Low	Reduction in noise and congestion	6
8	Transfer of Freight from Road to Rail	KCC/DDC/Dover Harbour Board/rail operators	Long term	High	Moderate	Reduction in noise and congestion; safer roads.	5

The costs are provided as: 'Low' (up to £1 million); 'Moderate' (between £1 million – £5 million); and, 'High' (greater than £5 million).
The air quality improvements are provided as: 'Low' (<0.2µg/m^3); 'Moderate' (between 0.2 – 1 µg/m^3); and, 'High' (greater that 1 µg/m^3).
The timescales are provided as: short term (1-2 years), medium term (2-5 years), long term (>5 years)

Table 6 Summary of Proposed General District-wide Measures to Improve Air Quality

Proposed measure	Description	Organisation responsible	Indicator	Date to be achieved by
1	Dover District Council will encourage Council Travel Plan opportunities and seek to facilitate uptake of sustainable modes of transport	DDC	% modal shift to car share/public transport/walking/cycling	Ongoing
2	Dover District Council will continue to work together with Kent County Council to encourage the uptake of Employer and School Travel Plans within the District	DDC/KCC	No. of travel plans in place	Ongoing
3	DDC will continue to work with KCC to improve the facilities for cycling and walking within Dover and encourage greater uptake	DDC/KCC	%modal shift to cycling/walking No. miles new cycle lanes/routes	Ongoing
4	DDC Environmental Health will continue to work closely with the Planning Department to ensure that air quality is taken into account in the planning process when located in or close to the AQMA or in areas marginally below air quality objectives.	DDC	No. planning applications with air quality conditions/assessments	Ongoing
5	DDC will continue to work together with developers to improve sustainable transport links serving new developments.	DDC	No. planning applications where improvements secured	Ongoing
6	DDC will develop, through the Kent & Medway Air Quality Partnership, supplementary planning guidance to assist with air quality assessments of development proposals	DDC/K&MAQP	Completion of supplementary planning guidance	December 2007
7	DDC will continue to work together with KCC to improve public transport services and encourage the use of more sustainable transport modes	DDC/KCC	% modal shift to public transport	Ongoing
8	DDC will continue their commitment to local air quality monitoring within the District to ensure a high standard of data is achieved to assess against air quality objectives	DDC	Quality of monitoring data % data capture	Ongoing
9	DDC will make details of the Action Plan measures and annual progress reports available on the Website to ensure broad access to the consultation and implementation process	DDC	Availability of recently published reports on the Website	Ongoing
10	DDC will continue to work together the Kent and Medway Air Quality Partnership on promotional activities to raise the profile of air quality in Dover	DDC/K&MAQP	No. promotional activities undertaken with the Partnership	Ongoing
11	DDC will continue to work together with the Kent Energy Centre to promote and implement energy efficiency measures in Dover	DDC/Kent Energy Centre	% improvement in energy efficiency SAP rating	Ongoing

7 IMPLEMENTATION AND MONITORING

Dover District Council will work jointly on the action plan measures with the relevant partners including the Highways Agency, Kent County Council, Dover Harbour Board, transport operators, schools and local businesses. To secure the necessary air quality improvements there must be involvement by all local stakeholders and Dover District Council will actively work to encourage community participation in the process.

The implementation and effectiveness of the Action Plan will be carefully monitored through monitoring of NO_2 at relevant receptor locations within the AQMAs. In addition, traffic flow changes on the key roads will also be assessed through the review and assessment process, and the uptake of local measures such as Travel Plans will be monitored. Indicators have been provided for the general measures to be undertaken by the Council to monitor progress annually.

There will be regular review and assessment of the action plan proposals to evaluate progress and this will be reported annually.

8 GLOSSARY OF TERMS

Abbreviation	Full name
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
BAT	Best Available Technology
CTRL	Channel Tunnel Rail Link
DEFRA	Department for Environment, food and Rural Affairs
DETR	Department for Transport and Regions
DDC	Dover District Council
DOE	Department of the Environment
HGV	Heavy goods vehicles
KCC	Kent County Council
K&MAQN	Kent & Medway Air Quality Network
K&MAQP	Kent & Medway Air Quality Partnership
LA21	Local Agenda 21
LAQM	Local air quality management
LDD	Local Development Documents
LDF	Local Development Framework
LEZ	Low Emission Zone
LTP	Local Transport Plan
NAQS	National Air Quality Strategy
NO_2	Nitrogen dioxide
NOx	Oxides of nitrogen
NSCA	National Society for Clean Air
PM_{10}	Fine particle matter less than 10µm diameter
ppb	Parts per billion
SO_2	Sulphur dioxide
$\mu g/m^3$	Micrograms per cubic metre
UTMC	Urban Traffic Management Control
VMS	Variable Message Signage

9 REFERENCES

DEFRA (2002) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum, The Stationery Office

DEFRA (2003) Policy Guidance LAQM.PG(03)

DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – Working together for Clean Air, The Stationery Office

DETR (2000) The Air Quality Regulations 2000, The Stationery Office

DOE (1997) The United Kingdom Nation Air Quality Strategy, The Stationery Office

Dover District Council (2002) Dover District Local Plan (Adopted 2002)

Dover District Council (2001) Local Agenda 21 Strategy

Dover District Council (2003) Dover District Community Strategy (2003-2010)

Dover District Council (2003) Dover District Council Corporate Plan (2003 – 2007)

Dover District Council (2004) Dover Pride Regeneration Strategy

Dover District Council (2005) Dover District Transport Strategy

GOSE (2002) South Coast Multi Modal Study

Highways Agency (2005) Dover Issues Report

Highways Agency Route Management Strategies A2/M2/A249 and M25/A20/A20

Kent County Council (2001) Local Transport Plan 2001/2 – 2005/6

Kent County Council (2006) Local Transport Plan 2006– 2011

Kent County Council (2006) Kent & Medway Structure Plan

Kent County Council (2003) Kent Environment Strategy

NSCA (2000) Air Quality Action Plans

NSCA (2001) Air Quality: Planning for Action

SEEDA (2006) Draft South East Plan (Regional Spatial Strategy)

10 APPENDICES

Appendix A	Letter and comments from DEFRA
Appendix B	Copy of e-mail received from Councillor Mrs. Munt
Appendix C	Copy of e-mail received from Castle Forum
Appendix D	Letter and comments from Dover Harbour Board
Appendix E	Letter and comments from Dover Town Council
Appendix F	Copy of e-mail received from Kent Police
Appendix G	Copy of e-mail and comments from Kent County Council
Appendix H	Copy of e-mail and comments from P & O
Appendix I	Copy of letter sent to Highways Agency
Appendix J	Copy of letter received from Highways Agency
Appendix K	Letter from Highways Agency and informal comments from their Consultants

defra

Department for Environment
Food and Rural Affairs

Zone 7/D13
Ashdown House
123 Victoria Street
London. SW1E 6DE

Telephone 020 7082 BB71
Website www.defra.gov.uk
Fax 020 7082 8379
Email tutu.aluko@defra.gsi.gov.uk

Mr Brian Gibson
Senior Environmental Protection Officer
Dover District Council
Environmental Health
White Cliffs Business Park
Dover
Kent. CT16 3PJ

Date 04 September 2007

Dear Mr Gibson

SCHEDULE 11 (2) OF THE ENVIRONMENT ACT 1995: CONSULTATION ON DOVER DISTRTCT COUNCIL' S DRAFT AIR QUALTY ACTION PLAN

Thank you for consulting the Secretary of State for Environment, Food and Rural Affairs on Dover's draft Air Quality Action Plan (AQAP) in accordance with the above schedule.

We forwarded your draft AQAP to our consultants for comment and appraisal. Please find attached for your consideration our comments on the action plan. We should be grateful if you could take these comments, including the recommended additions, on board in your final action plan. If it is not possible to incorporate certain recommendations in the final plan, we ask that you provide additional commentary explaining the reasons for this. We would also ask that you try to finalise the plan within six months if possible. Please send us copies of the final plan (both a hard and electronic copy is preferable) upon publication.

If you should have any queries on the attached, you may wish to contact the AQAP helpdesk on telephone: (020) 7902 6130 or email: actionplanhelp@stanger.co.uk.

Yours sincerely

Tutu Aluko
AIR, ENVIRONMENT QUALITY DIVISION

SCHEDULE 11 (2) ENVIRONMENT ACT 1995: CONSULTATION ON DOVER DISTRICT COUNCIL'S DRAFT AIR QUALITY ACTION PLAN

The Action Plan has been produced by Dover District Council in response to the declaration of an AQMA in October 2004 along a section of the A20 – Townwall Street – between the York Street roundabout and a point 140 metres from the Eastern Docks. This followed a likely exceedence of the annual nitrogen dioxide (NO_2) Air Quality Objective identified in Dover District Council's second round of review and assessment of air quality in the district. Source apportionment, as part of the second round of review and assessment, identified that the main source of NOx concentrations in 2005 was heavy goods vehicle traffic on the A20, through the town centre. The objective in the short term is to reduce the impact of heavy goods vehicles along this road, and within the AQMA, which serve the Port of Dover.

The Plan is well structured and clearly laid out. There is a good statement of the scale of the problem and details of the stages of the second round of review and assessment are well documented in the Plan. The main source of pollution within the AQMA is road traffic emissions, which are the main source of NO_x concentrations in the AQMA - 86% in total. The main contribution to these concentrations is from Heavy Duty Vehicles (HDVs), accounting for approximately two thirds of that 86%, and this is related to Dover Port activities.

Further assessment work concluded that the annual mean NO_2 objective will be met at the worst case receptors by 2010, based on traffic growth forecasts current at that time. However, future expansion of the port could mean higher growth in traffic than was modelled at the time, which puts the attainment at a degree of risk. This has not been quantified in the Plan. Later in the Plan it is stated that it is likely that the NO_2 annual mean objective will only be achieved through a combination of measures (as described in the Plan). **We support the stated intention that quantitative air quality impact assessment of the principal measures will be undertaken when relevant information on the detailed schemes becomes available, and look forward to updates through progress reporting.**

The current draft measures seek to address the reduction of HDV traffic on the A20 in the short term through improved traffic management (via junction improvements) which will have a moderate impact on air quality. Medium and long-term measures that are considered to potentially achieve a significant positive impact on air quality within the AQMA include:

- Dualling of the A2 between Lydden and Dover (high impact, long-term);
- Strategic signage improvements, facilitating the diversion of some port traffic from A20 to A2 (high impact, long-term); and
- The development of a buffer zone (for holding queuing port traffic) outside of the urban area (high impact, medium term).

The focus of the Plan is appropriate given the major issue appears to be port HGV traffic. In addition, a variety of other actions/measures are either ongoing, planned to start or planned to be extended. Wider, general district-wide measures to tackle general urban traffic are proposed (and some underway) to improve bus services; increase travel plan development; promotional activities; cycling and walking. In most cases it is noted that Dover District Council will have to work in partnership with Kent County Council in implementation of such measures, as the latter is the relevant Highways Authority for the local roads. Local commitments to working through the planning system (within Dover District Council's control) are also made, and should be progressed.

In the longer term, a transfer of freight from road to rail is being progressed, but the draft Plan reports that this measure "will not take significant freight off the road". Given the potential for port growth, it is important that this measure continues to be progressed.

Each measure has been assessed. The measures that have been chosen to be taken forward are listed in two separate summary tables. The Direct Measures are considered in terms of cost, impact and timescale in this table and ranked based on cost effectiveness. This is considered an appropriate method of assessing measures.

The cost-effectiveness methodology has not been fully explained, but appears to have been achieved by combining cost with air quality impact. If so, this is an appropriate method for illustrating the cost-effectiveness at this stage of action planning, but could be more clearly described in the Plan. Organisations responsible for delivering the direct measures are also included, as are 'other potential impacts' i.e. non air quality impacts. The Indirect Measures table is less detailed, containing the organisation responsible for delivering the measure, an indicator and the date it is expected to be achieved by.

Overall a clear statement is not made by the Council about whether and when Air Quality Objectives and EU objective limits will be met. Based on evidence that expansion of the port is planned and that the direct high-impact measures are medium to long-term plans, it seems probable the EU Limit in 2010 will not be met. **A statement confirming Dover District Council's view on this issue would be a useful addition to the final Plan.**

Consultation is planned on this draft Plan, and once completed the results (including any amendments made) should be included in a Final document.

The Plan as a whole is to be commended for its clear, succinct and thorough approach. With some minor amendments to this draft, with reference to the points raised above, a sound final Plan should be achieved. It will be important to ensure Dover District Council does everything it can to support the progression of direct and indirect actions to improve air quality in the area, and review the Plan to keep it current.

The draft Plan is well written and covers the majority of the main processes required from an Action Plan. In summary, the final Plan should include consideration to the following:

- Quantitative air quality impact assessment of the principal measures should be undertaken when relevant information on the detailed schemes becomes available, and updates provided through progress reporting;
- Inclusion of a statement confirming Dover District Council's view on whether it is considered that the EU Limit will be met, in the light of the proposed Port expansion;
- Inclusion of the details of the consultation results and how the results of the consultation have influenced the Plan.

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 formulating its Action Plan.

Issues can be followed up through the Air Quality Action Plan helpdesk as follows:

Helpdesk telephone: 020 7902 6130
Helpdesk email: actionplanhelp@stanger.co.uk
Web-site: www.bv-actionplan.co.uk/

Thank you for the opportunity to comment.

Cllr. Mrs. J.M. Munt
16.10.06

I note the Conclusions from the Stage 3 Revue, p.13
Have there been any improvements?

Congestion, p.21
There is good evidence to suggest that the division of traffic streams using both the M20 and a dual lane A2 would relieve many of the difficulties for Townwall Street and local residents.

It is not only the Port suffers problems! Dover suffers from the continual expansion of the port and increasing traffic. Health factors play an important part

I agree with the recommendations, but all interested parties must accept that quality of life and health play a significant part – not only business interests.

Movement of lorries should be controlled, Too many attempt to bypass the queue to the Eastern Docks by making a diversion through the town, turning at the Town Hall junction and proceeding to the docks by Maison Dieu Road. Many have to use the left hand lane at the Town Hall junction and cross the right hand one in order to make the turn. Can there not be signage at the York Street roundabout to prevent this? (Sign/Height barriers)?

Any waiting areas with parking facilities should be further north, possibly linked to a road further south of the A25 so that port areas link directly to the M25 and the A2. A holding area here would better control road access and provide 'gap time' to avoid queues further south In addition the area proposed by the Harbour Board for a holding area is on highly protected land and I understand that there is already official disapproval at government level.
Local bus services for residents will be an urgent requirement to reduce car use when the new business park is in use and there will be even more need if (when) extensions to the South Kent College require additional transport for students

There are problems with sea mist on both access roads near the port and there have been accidents. Static traffic at these points are at risk.

Regarding air quality, such 'mist areas' hold pollution. Long delay periods can add to contamination. Will there be any prior testing/forecasting of this factor?

2.

Cllr. Mrs. J. M. Munt
14/11/05

Health Impact

I have added this since the meeting with the Neighbourhood Forum.

This could be useful in establishing a source for comment and investigation. I was very pleased to note that the first interest proposed was that of air quality in the town centre. Out first investigation related to residents in the Townwall Street area only. However, with the expansion of the docks and new access areas, it would be possible to get a wider section of the population involved. For example, the Western docks extension would undoubtably add to pollution emissions in the Ayecliffe area and the building of a new Waste Treatment facility in the Business Park on the A2, could increase pollution on that side of the harbour.

From: Leslie Richmond [mailto:lh.richmond@btinternet.com]
Sent: 15 November 2006 10:37
To: Brian Gibson
Subject: Local Air Quality management

Dear Mr Gibson,

Thank you for your letter dated 22 September 2006. I do not have any further observations or comments to add. I think your Draft action plan covers everything!

Kindest regards

Les Richmond.
Secretary, Castle Forum.

L H Richmond. BSc (Hons) RIN

8 Dolphin House
Market Square
DOVER
Kent
CT16 1NY

Appendix D

Our Ref: HJPH/BG/01 17 November 2006

Mr Brian Gibson
Environmental Health
Dover District Council
White Cliffs Business Park
Whitfield
DOVER
Kent
CT16 3PJ

Dear Brian

Local Air Quality Management Draft Action Plan - Dover District

Thank you for consulting Dover Harbour Board in the formulation of the above document, which has been considered with interest. The Board welcomes the opportunity to engage further in what it considers to be an important issue for Dover.

Our attention is particularly drawn to Theme 3 "Improvements to Port of Dover Operations" and the proposed actions contained therein, which are all issues considered through the Port's ongoing 30-year master planning process. In this regard, we wish to emphasise the opportunity afforded by our proposed Western Docks development. Whilst we continue to assess the full range of options for regulating traffic, including the Buffer Zone Concept with its significant planning hurdles, freight traffic is growing at a very considerable rate to the extent that we must focus our main attention on delivering an efficient and sustainable second ferry terminal as soon as practicable.

Freight traffic using the Port of Dover is set to double over the next 30 years and we consider that only by delivering Terminal 2 in the Western Docks will significantly worse congestion and air quality issues in the town of Dover be avoided.

Within the above context, please find below some comments on specific elements of the draft Plan.

Pages 22, 24 & 25 - VISSIM

The above pages all refer to a micro-simulation model called VISSIM used to assess the Port's traffic and adjacent strategic routes. The Port would just like to clarify that the

VISSIM model was paid for and developed by Dover Harbour Board and was subsequently shared with the Highways Agency for further development and testing.

Page 23 - Action 3: Strategic Signage Improvements

The document refers to the support for changing the strategic signing regime in order that port traffic uses the A2. It cites the reason as improving congestion and air quality issues along A20 Townwall Street. The issue is not as clear cut as it perhaps seems and it is important that any changes to strategic signage for Port traffic are seen in the context of the Port's development proposals for the next 30 years. By switching a large proportion of the Port's traffic onto the A2 at a time when the Port is having to focus its future development on the Western Docks, the issue of congestion and air quality along A20 Townwall Street is going to remain. Port-bound traffic travelling on the A2 and heading for the proposed Terminal 2 in the Western Docks would still have to transit the town via A20 Townwall Street in order to reach it.

The Port suggests that the focus of attention is on the more effective use of both routes as the document goes on to consider on page 24. There may be times when just Eurotunnel has operational problems and there is no need for Port-bound traffic to be held up. In this situation, better use of the A2 may well be appropriate. However, both routes to Dover can be affected by any number of situations and having an alternative route, particularly as traffic volumes grow, will ensure that the county is not gridlocked by queuing traffic trying to get to the Port.

Page 27 – Action 7: Possible Port Expansion to Western Docks

The second paragraph refers to the implications of Port development and suggests that additional shipping traffic will inevitably mean additional road traffic. This may seem a small point to make, but it is fundamental to the way the Port's expansion plans should be viewed. We are in no way planning to build a new ferry terminal in the Western Docks in order to 'attract' more ships, which in turn will 'attract' or 'generate' more road traffic. On the contrary, the Port is reacting to global market forces capitalising on the Port's efficiency and cost effectiveness as a transit corridor between the UK and mainland Europe due to its geographical position. Market forces are driving the demand for the movement of people and goods, not the Port. The traffic is coming and will increase whether the Port develops the capacity for more ships or not. It is the Port's view that it is better to be able to handle the additional traffic rather than let it cause even more congestion and pollution.

The third paragraph suggests that the expansion of Ro Ro facilities within the Western Docks could enable changes in the strategic signing to the Port. Referring to comments made on pages 23 and 24 above, the issue is not as straightforward as it seems. It is certainly worth examining the possibilities. However, how this could practically be done will take some exploration in terms of which ferry operators are using which terminal, issues of diversion and the fact that many hauliers have more than one account and will not decide which ferry operator to travel with until they arrive at the Port.

The table at the bottom of page 27 refers to the impact on air quality and suggests that it is low. It is assumed that a low impact means that it does not improve the air quality situation very much. The interpretation regarding the impact of Terminal 2 as low is debatable.

Again it is important to look longer term in the context of the Port's 30 year development plan as well as the present day. It can be argued that although A20 Townwall Street and the Eastern
Docks will still be busy, they would be vastly busier places if Terminal 2 was not built and the doubled volume of freight traffic was all still trying to use the Eastern Docks. In that regard the impact could be described as high.

Page 28 – Action 8: Transfer of Freight from Road to Rail

The Port's comments here are focussed on updating the consultation document with the latest information. The document refers to the FINESSE project, in which the Port of Dover, Dover District Council, Kent County Council (KCC) and South East England Development Agency (SEEDA) were all partners. This project ended in early 2006. However, following on from this, Port of Dover along with Kent County Council and South East England Development Agency carried on the investigation of rail potential at the Port and invested in a new part-European funded project called IMPACTE (Intermodal Port Access & Commodities Transport in Europe). Since its inception, the Port has signed a Basic Services Agreement with Network Rail in order to carry out a preliminary evaluation of the operational and engineering viability of a rail connection to the former Dover Town Yard and to determine the outline costs and timescale for achieving this.

One further point to add in general is that lorries are likely to have much cleaner engines in the future. Newly purchased lorries must all be of Euro 4 standard and the advanced standard Euro 5 is already being developed. It is therefore not a simple case of assessing the pollution from a lorry today and using that as an indicator for the future.

Dover Harbour Board is also working with Jacobs Babtie to develop and promote a Green Travel Plan for the Port of Dover. This will incorporate car sharing, cycling and public transport use. Dover Harbour Board has recently produced a port-wide Energy Policy which includes energy efficiency measures and ongoing investigations into energy consumption. It is hope that these measures will complement the Local Air Quality Management Draft Action Plan.

We look forward to working together with Dover District Council and other relevant authorities and agencies in order to address and deliver on the various actions for which Dover Harbour Board can play a helpful part.

Yours sincerely

Howard Holt
Head of Corporate Affairs

DOVER TOWN COUNCIL

Council Offices, Maison Dieu House, Biggin Street, Dover, Kent CT16 1DW
Telephone/Answer Machine: 01304 242625 ~ Fax: 01304 241445
Website: www.dovertown.co.uk

File
AQ

Mr B Gibson
Senior Environmental Protection Officer
Dover District Council
White Cliffs Business Park
Dover
CT16 3PJ

DTC 1.11.6 / 5139
15 November 2006

Dear Mr Gibson,

LOCAL AIR QUALITY MANAGEMENT
DRAFT ACTION PLAN – DOVER DISTRICT

We would like to express our concerns with regard to the air pollution created by the cross channel ferries. We are aware that low sulphur fuel alternatives are available and would appreciate a recommendation being made that all ferry companies operating out of Dover utilise such alternatives in an effort to reduce the emission of sulphur dioxide and other harmful substances in to the atmosphere.

We will forward a more comprehensive response to you after the public meeting which will be held on 14th December 2006 at the Town Council offices which will specifically address air quality management.

We hope that the information contained in your report is suitably advertised as this is of immediate and vital concern to all residents in Dover, perhaps made available on your website and copies sent for perusal both at the Town Council office and Castle Street.

Yours sincerely

Councillor Mrs L Young
CHAIRMAN, TOWN AND ENVIRONMENT COMMITTEE

Replied.
16/11/06

From: Traffic Management - Coldharbour Traffic Management - Coldharbour [mailto:roadspol.td@kent.pnn.police.uk]
Sent: 13 November 2006 13:49
To: Brian Gibson
Subject: RE: Dover Issues Group. DOVER COUNCIL AIR QUALITY REVIEW &ASSESSMENT - ACTION PLAN - CONSULTATIVE D

Brian,

Having read the Consultative Draft Air Quality Action Plan for Dover, Kent Police have no specific comments or observations to make.

Regards,

Geoff Bineham
Kent Police
Traffic Management Unit
Coldharbour.

From: Robert.Smith3@kent.gov.uk [mailto:Robert.Smith3@kent.gov.uk]
Sent: 15 November 2006 13:11
To: Brian Gibson
Cc: Todd.Ken@kent.gov.uk; Liz.Shier@kent.gov.uk
Subject: Local Air Quality Management - Consultative Draft Action Plan

Brian

Thank you for sending me the Draft Action Plan. The document is generally supported by us and the Action Plan is very commendable. In that regard, KCC are committed to providing the necessary support on those specifc actions and areas where environmental improvements can be achieved, particularly to Air Quality. Clearly our ability to do so will also be a function of budgetary considerations that will form part of an annual bidding process and are not totally within our control. I attach comments which include collated views from my KHS colleagues at the Divisional Office in Canterbury.

1. section 3.9 2nd para - the last sentence should read *".....include Smarter Choices, the Network Management Plan and Quality Bus Partnerships between the local transport authority and transport operators*"

2. section 4: see below suggested rewritten text from second paragraph onwards, this takes out the funding allocations since these are only bid proposals determined year on year so we cannot commit to future schemes at this time.

"Indirect general measures to improve air quality in the area will be funded by Dover District Council, such as air quality monitoring and promotional activities, or by KCC through the LTP process. As part of the 2nd Kent LTP 2006/7 – 2010/11 formulation, a number of provisional funding bid items have been identified in the District of Dover that are of relevance and tie in with Action Plan measures to improve air quality in the area:

- *Quality Bus Partnership and bus priority measures*
- *New cycle routes*
- *Implementation of emerging walking strategy*
- *Support for school travel plans*
- *Support for workplace travel plans*
- *Improvements to railway stations and interchanges (access)*

Historically funding bids for Public Transport, Smarter Choices (Safer Routes to School etc), Cycling and Walking measures have been successful and the monies made available through the annual LTP settlement process. In the light of the findings of the review and assessment of air quality Dover District Council will work together with KCC to review and reaffirm current bid measures and to consider additional ones as necessary in an effort to secure further improvements in air quality".

3. section 6.2 4th para - the aim for all schools to have a school travel plan lies within the Smarter Choices Kent - Appendix 11 of the LTP. Therefore, change the first sentence to "the *LTP for Kent 2006-11 has a target LTP4 Mode Share of Journeys to School - to increase the proportion of pupils travelling to school by sustainable transport modes by 10% (Secondary Schools) and 5% (Primary Schools)".* As above, the outline scheme proposals should be taken out, future funding uncertainties mean that we cannot commit to schemes at this stage and these are only potential bids.

4. Page 24 second sentence - "country" should read "county"

5. section 6.2 5th para - ditto as comment 3 above so remove this paragraph

6. section 6.2 Walking and Cycling - are you sure DDC have developed a Cycling Strategy? We're not aware of this! Suggested change to some of the text:

"*DDC is working with KCC to progress cycle route implementation in the area to help satisfy the 2nd Local Transport Plan aspirations.*

Cycling scheme proposals will be promoted for funding as part of the 2nd LTP process including new cycle routes identified by the Dover District cycle forum - North Deal to Betteshanger Country Park - Deal seafront to Mongeham (Phase 2); A258 Sholden New Road to Church Lane - A258 Mongeham Road; Sandwich to Betteshanger Country Park - River to Dover Town Centre (Phase 1); River to Dover Town Centre (Phase 2); Walmer School to NCN1 Walmer Seafront; and NCN1 Deal Seafront (Phase 1).

The 2nd LTP also contains a number of bid proposals to implement the emerging Walking Strategy. These include provision of dropped kerbs and crossing points for key links to town centres (including new lighting) at: Liverpool Road, Walmer; A260 Denton Guildhall, Wingham; Reach Road, St Margarets; Cauldham Close, Capel-le-Ferne, Sea Street, St Margarets; Strakers Hill, East Studdal; and Westcourt Lane, Shepherdswell."

With 6.2 all of the sub heading labels under each theme appear to be 1., is this right?

7. Under Theme 2, Page 33 - suggested text

1. Improvements to Bus Services

"The 2nd LTP includes proposals to increase bus patronage across Kent and improvements to bus services District-wide are best likely to be achieved through a Quality Bus Partnership with the relevant transport provider. Measures to improve bus services will focus initially on the existing network of bus stops and improving accessibility through the provision of low floor buses, with associated physical works. In the future added bus priority measures could include fitting transponders to register the bus presence at traffic signal junctions and to provide real-time information on service arrivals at key bus stops - with the route corridor (61) through Dover town centre as a potential pilot service. This is expected to improve both bus service reliability and modal shift in favour of the bus."

8. Table 5, Page 37. I note the last column identifies a 'Rank ' based on cost effectiveness. If challenged is this defendable i.e. can quantitative evidence be provided to justify this? Has any dialogue taken place with the organisations identified as being responsible to ensure that they share in and understand the process? I note that KCC is identified in the action with the highest priority but am not aware that we have shared in any discussions around this. Perhaps this document is targeted at achieving this. If so we surely do need to better understand how the 'ranking' has been achieved and whether it is justifiable?

I hope these comments are useful and come back to me if you need any further clarification.

Regards

Rob Smith
Senior Transport Planner
Kent County Council

-----Original Message-----
From: Mackenzie, Sue [mailto:Sue.Mackenzie@POferries.com]
Sent: 06 November 2006 09:04
To: Brian Gibson
Cc: Garner, John
Subject: FW: Dover Issues Group. DOVER COUNCIL AIR QUALITY REVIEW & ASSESS MENT - ACTION PLAN - CONSULTATIVE DRAFT

Dear Mr Gibson,

> Thank you for your email dated 15 September 2006 asking for our
> comments on the Dover Council Air Quality Review and Assessment Action
> Plan.
>
> P&O Ferries is in principle, fully supportive of the direct measures
> proposed at Table 5 for the AQMA. We would of course, at the appropriate
> time, like to understand the detail behind each of the actions listed and
> to understand fully what impact, if any, it will likely have on our
> operations at Dover.
>
> As far as Action 8 'Transfer of Freight from Road to Rail' is
> concerned I would suggest that detailed consultation early on with all
> interested parties, including the Ferry Operators, is essential. We
> assume you are aiming this at unaccompanied freight such as containers and
> drop trailers. Assuming this to be the case, the large land area, and
> associated cargo handling within the intermodal exchange area will be
> complex and high cost and should not be underestimated. This may also
> impact upon other opportunities identified for the Western Docks under
> the 30 year port master plan.
>
> Kind Regards,

Environmental Health
White Cliffs Business Park
Dover
Kent CT16 3PJ

Telephone: (01304) 821199
Fax: (01304) 872416
DX: 6312
Minicom: (01304) 820115
Website: www.dover.gov.uk

Mr Ing Fisher
A20/M20 Route Manager
Highways Agency
3B Federated House
London Road
Dorking
RH4 1SZ

Contact: Mr B Gibson
Direct line: (01304) 872207
E-mail: brian.gibson@dover.gov.uk
Our ref: BG/LW
Your ref: HA44/38/270
Date: 29 May 2007

Dear Mr Fisher

Dover District Council AQR&A – Draft Action Plan September 2006

I refer to your letter dated 15 October 2006, in which you have commented on the above Action Plan, and I am pleased that the Highways Agency support measures included in the Plan.

The Council are currently drawing up the Final Action Plan in which comments received during the consultation process will be included. I note that accompanying your letter was additional 'informal comments' from Parsons Brinkerhoff and, as you will see from the attached DEFRA appraisal of the Plan, there is a requirement to include comments made under this process. I would therefore be grateful if you would advise me whether the additional informal comments can be included.

In respect of your comments relating to the 2006 USA, it should be noted that the diffusion tube at The Gateway did indicate concentrations below the annual mean objective in 2005. However, an AQMA cannot be revoked on the basis of one diffusion tube's reading in an individual year. 2005 was generally a low pollution year, due to the prevailing meteorological conditions, and many local authorities similarly saw a reduction in their monitored results. There is also the robustness of the monitoring data to consider. In 2005, there was only a single diffusion tube and, therefore, there may be uncertainties in the results. The triplicate co-location study currently in place will add to the robustness of the monitoring at this site. Revocation will only be accepted by DEFRA where there is clear compliance with the objective (<36ug/m3) for a number of years using a robust monitoring approach and where the local authority can demonstrate that all receptors within the AQMA will similarly meet the objective (this is usually achieved through dispersion modelling). Until this time, the AQMA declaration should stand and AQAP measures should continue to be implemented to work towards the objective.

There is also the issue of future growth in traffic along the A20 Townwall Street. The projection of NO2 concentrations to 2010 at present is based on the growth factors provided in the Port's 30 year Plan. I understand that these are now considered to be an underestimate of the actual growth and, therefore, concentrations in future may be higher than predicted in previous Review and Assessment reports. The new traffic growth figures for the Port will be included in the forthcoming Detailed Assessment (DA), to provide a more accurate picture of future concentrations. The DA will shortly be completed and a copy will be forwarded to you for your consideration.

cont'd/...

Once the final Plan is complete, I will ensure that a copy is forwarded to the Highway Agency, after which it is hoped that measures identified in the Plan where responsibility lies with the Highways Agency can be progressed.

Yours sincerely

Brian Gibson
Senior Environmental Protection Officer

Safe roads, Reliable journeys, Informed travellers

HIGHWAYS AGENCY

Our ref: HA 44/38/270
Your ref:

3B
Federated House
London Road
Dorking RH4 1SZ

Direct Line: 01306 878362
Fax: 01306 878 322

15 October 2006

Mr Brian Gibson
Environmental Health Department
Dover District Council
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Dear Mr Gibson

RE: DOVER COUNCIL AIR QUALITY REVIEW & ASSESSMENT - ACTION PLAN - CONSULTATIVE DRAFT

Thank you for sending us a copy of your action plan for the AQMA at Townwall Street section of the A20. The report is well written and the information is clearly presented.

The Townwall Street AQMA was declared on the basis of the second round Review and Assessment process, which found exceedances of the nitrogen dioxide annual mean objective close to the A20. The Highways Agency is working closely with Dover District Council as outlined in the Action Plan, to investigate several measures to improve air quality near the A20 Townwall St, namely:

1. Junction improvements to reduce congestion on Townwall Street
2. Dualling of the A2 between Lydden and Dover to provide an alternative route for freight traffic
3. Strategic signing improvements to encourage freight traffic to use the A2/M2 if dualled
4. New exit slip road onto A20 from the Eastern Docks

However, we note that in your 2006 Updating and Screening Assessment (USA), that at the closest property to the A20, the Gateway, measured concentrations in 2005 and achieved the objective with 35.4 $\mu g/m^3$. On this basis and the 2004 measurements, the air quality along this section of the route would appear to have improved so that the Air Quality Strategy objective in 2005 and EU Limit Value in 2010 are likely to be met without mitigation measures. We note the recommendation in the USA that a more robust approach be taken for the monitoring to confirm compliance. Preliminary indications are that this AQMA is no longer required.

Department for Transport

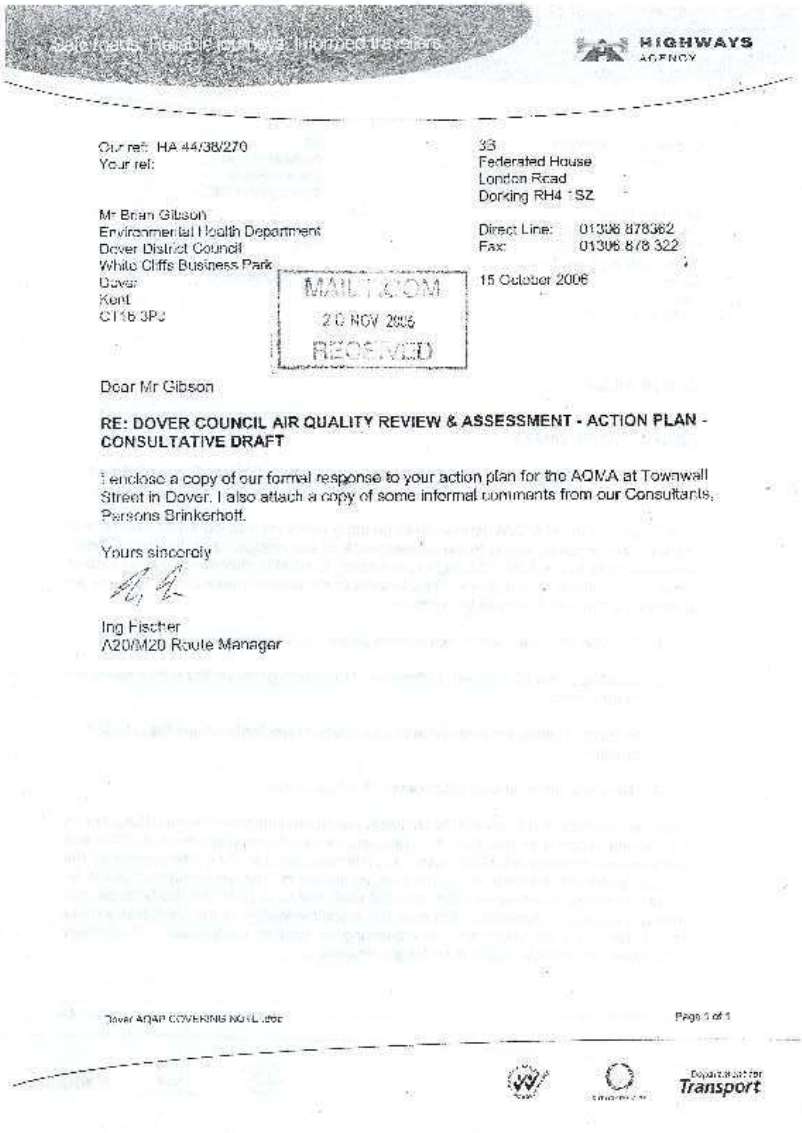
We also note from the 2006 USA that concentrations at an isolated property at the junction of the A20 near the Western Docks were above the objective at 46.3 $\mu g/m^3$ based on seven months' monitoring. We would be interested to see the measurements for a full year and the results of the detailed modelling that has been proposed for this location. An AQMA may be required at this location subject to further assessment.

We support the more general, district wide measures included in your Plan, in particular the introduction of travel plans, encouragement of public transport and the cycling and walking strategies as these should help reduce demand.

If there is anything further that we can do please do not hesitate to contact me.

Yours sincerely

Ing Fischer
A20/M20 Route Manager



Safe roads. Reliable journeys. Informed travellers.

HIGHWAYS AGENCY

Our ref: HA 44/38/270
Your ref:

3B
Federated House
London Road
Dorking RH4 1SZ

Mr Brian Gibson
Environmental Health Department
Dover District Council
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Direct Line: 01306 878362
Fax: 01306 878 322

MAIL ROOM
20 NOV 2006
RECEIVED

15 October 2006

Dear Mr Gibson

RE: DOVER COUNCIL AIR QUALITY REVIEW & ASSESSMENT - ACTION PLAN - CONSULTATIVE DRAFT

I enclose a copy of our formal response to your action plan for the AQMA at Townwall Street in Dover. I also attach a copy of some informal comments from our Consultants, Parsons Brinkerhoff.

Yours sincerely

Ing Fischer
A20/M20 Route Manager

Dover AQAP COVERING NOTE.doc

Page 1 of 1

Department for Transport

Informal Comments Only

Memorandum

Subject: **DOVER - LOCAL AIR QUALITY MANAGEMENT**

These are my comments of the "Dover District Council Local Air Quality Management Consultative Draft Action Plan" issued in September 2006.

1. Reporting of Action Plan
   I agree that the Action Plan should identify the "direct" and "indirect" measures.

2. Overview of Air Quality in Dover
   "Detailed Assessment" identifies that NO_2 as the pollutant that would exceed the threshold set out by legislative documents.

   "Further Assessment" states that: "*the HDV (Heavy Duty Vehicles) class vehicles are contributing disproportionately to NO_x concentration in the AQMA area; contributing approximately two thirds of NO_x from road traffic but being a relatively small proportion (20%) of the vehicle fleet.*"

   These two statements suggest that the HDV class vehicle is the main source of emission attributing to the AQMA on Townwall Street, which can be related to the traffic using the Port. There is a second AQMA at the Port, which refers to the sulphur dioxide emission that relates to the shipping activities of the Port; this is mentioned in the executive summary but only identified as a "problem" in the main text.

3. The Root Causes
   A root cause of the Air Quality issue is stated in Section 6, paragraph 1. "*There are increasing congestion problems along the A20 Townwall Street due to HGVs heading to the Port and, more generally, growth in port related traffic and local traffic growth. At times, HGV arrive at the Port at a rate greater than which they can be handled, resulting in potential exceedences of the Port's storage capacity and queuing along the A20.*" This is a known cause that the HA, KCC and DDC have been voicing this problem with Dover Harbour Board on regular meetings. DHB's response is that the ferry operators (such as number of check-in booths open) are outside the control of the port authority.

   However, the other root cause relates to the Port Police intervenes the operation of Eastern Docks Roundabout, particularly in the PM peak, is not reported. The Port Police stops the right turning traffic at Eastern Docks to allow the Port traffic to join the A20. This is causing queuing on Townwall Street eastbound when the trunk/local traffic is trying to leave the town centre heading towards the A2. DHB consider this issue affects the port security and the Port Police is taking the necessary steps to alleviate the problem. This problem **WILL** be greatly improved (confirmed by VISSIM Model) when the egress road scheme is implemented.

   As a result, the emission data was collected without taking into account that the vehicle speed along Townwall Street is greatly affected by the unusual operational characteristics at Eastern Docks Roundabout.

Informal Comments Only

Memorandum

Subject: **DOVER - LOCAL AIR QUALITY MANAGEMENT**

These are my comments of the "Dover District Council Local Air Quality Management Consultative Draft Action Plan" issued in September 2006.

1. Reporting of Action Plan
   I agree that the Action Plan should identify the "direct" and "indirect" measures.

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3. The Root Causes
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   However, the other root cause relates to the Port Police intervenes the operation of Eastern Docks Roundabout, particularly in the PM peak, is not reported. The Port Police stops the right turning traffic at Eastern Docks to allow the Port traffic to join the A20. This is causing queuing on Townwall Street eastbound when the trunk/local traffic is trying to leave the town centre heading towards the A2. DHB consider this issue affects the port security and the Port Police is taking the necessary steps to alleviate the problem. This problem **WILL** be greatly improved (confirmed by VISSIM Model) when the egress road scheme is implemented.

   As a result, the emission data was collected without taking into account that the vehicle speed along Townwall Street is greatly affected by the unusual operational characteristics at Eastern Docks Roundabout.

The Actions

4. Improve Traffic Management through Junction Improvement (Action1)
   No further comments. I agree this should rank **1st** on the list.

5. A2 Lydden – Dover Dualling (Action 2)
   The report considers this scheme would improve the air quality in the "high" category. But the report did not identify this scheme only goes as far as Guston Roundabout; the elevated section towards Eastern Docks and the roundabout are unchanged. We have already considered a scenario that assumes there will be more traffic using the A2 heading towards the port. This scenario has already been tested in the VISSIM modelling work and the result was conclusive. Eastern Docks Roundabout **WILL NOT WORK**, traffic queue up rapidly on the A20 eastbound and grid-lock the entire network.

   I am unable to appreciate how the air quality in AQMA can be improved from the Lydden-Dover scheme; perhaps this is a matter of political correctness. But I agree that the Lydden-Dover scheme could have an implication to the regeneration and enabling LDF allocations. Considering this scheme will have a long lead time, it should be ranked **6th** on the list.

6. Signing Strategy (Action 3)
   I understand that the HA have received the report from Faber Maunsell regarding the opinion survey of lorry drivers using Dover Port. The headline conclusion is that drivers are more inclined to stick to their familiar route (in this case M20/A20). The aspiration of signing traffic to use A2 will only result in a marginal transfer. Nevertheless, the transfer will result in some additional traffic using the A2, which will put pressure on Eastern Docks Roundabout, as mentioned in Action 2. I consider this scheme should rank **4th equal** on the list.

7. Improvement to Eastern Docks Layout (Action 4)
   This improvement should address one of the root causes (check-in). I consider this scheme should rank **2nd equal** on the list.

8. New Dover Eastern Docks Exit Road to A20 Townwall Street (Action 5)
   This improvement scheme address another root causes (intervention of Port Police). I consider this scheme should rank **2nd equal** on the list.

9. Development of Buffer Zone (Action 6)
   This is an option to regulate the arrival to the Port and possibly improve the check-in procedure. Despite DHB will promote this scheme, the works associated to trunk road will be subjected to public inquiry. Therefore, in terms of timescale, there is no difference from the A2 Lydden-Dover scheme. I also pointed out to RPS (on behalf of DHB) that a second Buffer Zone may be needed on the A2 in order to provide the same level of service as of the A20.

   I believe the engineering side to find a suitable layout to/from A20 and the instrumentation to control the throughput are fairly straight forward, which should simplify the delivery for medium term. The environmental impact to the countryside would be a key issue at the inquiry. Weighting up the factors and uncertainties, I consider this scheme should rank **4th equal**.

10. Port Expansion to Western Docks (Action 7)
    This is a long term scheme with delivery horizon some 15 years from now. The access strategy is still under development and HA would consider this strategy should include the M25. I consider this scheme should rank **5th** on the list.

11. Transfer Freight from Road to Rail (Action 8)
    A very good aspiration but there is many obstacles to resolve. I consider this as **7th**, the lowest rank of all actions.

12. Action 9 – More improvements on A20
Action 1 – Improve Traffic Management through Junction Improvement is not necessary restricted to small improvements through developments. The HA has considered other forms of traffic management regimes (for example: paragraph 3.8 last bullet point). Also, there may be opportunity to re-model Eastern Docks Roundabout. These opportunities could be considered as Action 9.