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Executive Summary

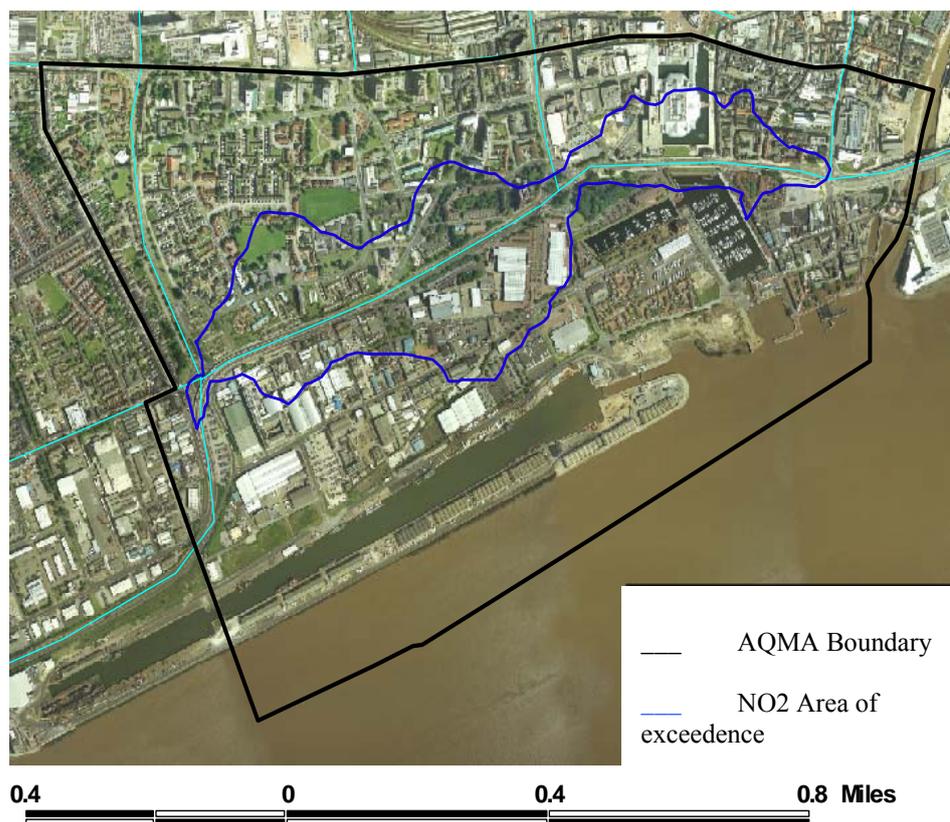
Part IV of the Environment Act 1995 requires all Local Authorities to periodically review air quality in their areas. In doing so, Local Authorities consider the present quality of the air and the likely future quality of the air with regards to the Government's National Air Quality Objectives.

In order to determine whether the objectives could be met in Kingston upon Hull, a review and assessment of air quality was carried out.

The results indicated a likely exceedence of the Government's annual average objective for nitrogen dioxide in 2005, at locations adjacent to the A63 Trunk Road. Modelled results, confirmed by monitoring, showed that the area was subject to levels up to $45\mu\text{g}/\text{m}^3$ whilst the air quality objectives present a standard of $40\mu\text{g}/\text{m}^3$

The Council was therefore obliged to declare an Air Quality Management Area (AQMA) in August 2005.

Figure 1, Air Quality Management Area.



Following declaration of the AQMA, Kingston upon Hull City Council is obliged to carry out a further, more detailed review and assessment of air quality within the area (the Stage Four Report). The purpose of this was to assess the current and future air quality within the AQMA, and also to estimate by how much air pollution

concentrations will exceed the air quality objectives. It also provided information on the contributions of the relative sources of nitrogen dioxide (source apportionment).

This report highlights the salient findings of the Stage Four Review. The results of the review have been used to provide the technical justification for some of the measures put forward in the development of this Action Plan.

This document can therefore be deemed to encompass the results of the Stage Four Review which can be found in Appendix Eight of this report. Monitored results can be found in Chapter Two.

As a result of the declaration of an AQMA, Kingston upon Hull City Council is required to prepare an Air Quality Action Plan. The overall aim of this Action Plan is to identify how Kingston upon Hull City Council will use its existing powers and also work in conjunction with other organisations in pursuit of the Air Quality Objectives, thus working to minimise the effects of pollution on human health. Due to the exceedance being for the annual average concentrations of Nitrogen Dioxide, more emphasis will be placed on this particular pollutant whilst at the same time trying to ensure a continuation of the existing low or improvements in the levels of other pollutants.

This Action Plan therefore suggests measures which could be taken to improve air quality within the Air Quality Management Area together with measures which could contribute to the improvement of air quality across the whole of the City.

During consultation, a range of suggestions were put forward for consideration and these are listed in Appendix One. Details of the consultations that have been undertaken are presented in Appendix Two. These measures were considered and, after discussion with the relevant bodies that would be responsible for their implementation, those that didn't meet the cost benefit analysis were removed, leaving the measures we propose to progress, which are listed in Table One.

Conclusions

Due to the varied nature and differing timescales of the proposals, it is difficult to state conclusively that the measures will be enough to meet the air quality objectives. However, as the problem is traffic related and quite specific to a stretch of the A63 Trunk Road, we feel confident that the issues creating the Air Quality Management Area will be addressed in the near future. This confidence is bolstered following consultation with the relevant internal and external highways authorities, planners and development control as well as contiguous local authorities who are all working towards addressing the problem from their own various perspectives, for example traffic congestion.

Of the five general sources of pollution road transport is by far the largest contributor, with rail, air and sea sources being eliminated in the previous review and assessment rounds. Compulsory purchase of affected properties was considered but not seen as a viable option as it still didn't address the over riding problem.

Whilst the major measures are traffic related, the Action Plan also includes measures aimed at domestic properties and other sites where energy conservation could have an impact.

Following discussions with the individual sections that would have the responsibility to implement the measures in the Action Plan, it is considered that all the measures that have been proposed can be seen as realistic and achievable.

Ranked order of measures to be progressed.

Item number (see Appendix One)	OPTION	Grouping	Cost £	Cost ☺ See Chapter 4	Rank	Timescale
10	Traffic Control schemes	Demand Management	Low	Low	1	Short/med
32	Idling vehicles legislation	Reduce Emissions	Med	Low	2	Short
20	Quality Bus Corridors	Demand Management	High	Med	3	Med
22	Park & Ride	Reduce Vehicles	High	Low	4	Short/Med
3	Low Emission Buses	Reduce Emissions	High	Low	5	Med
37	Reducing pollution from Council vehicles/activities	Reduce Emissions	Med	Med	6	Med
2	Roadside Emission Testing	Reduce Emissions	Med	Med	7	Med- Long
35	Liaison with Primary Care trust for health/AQ statistics	Reduce Vehicles	Med	Low	8	Short
41/15	Energy efficiency schemes	Reduce Emissions	Med	Low	9	Long
8	Cycling and walking schemes	Reduce vehicles	Low	Low	10	Long
38	Increase awareness	Awareness raising	Med	Low	11	Long
17	School curriculum	Awareness raising	Low	Low	12	Long
19	Real time information for public transport network	Demand management	Med	Low	13	Long
12	Planning Guidance for developers	Demand management	Low	Low	14	Long
11	Liaison with Highways Agency	Demand Management	Low	Low	15	Long
33	AQ objectives in annual performance reviews of staff/departments	Awareness raising	Low	Low	16	Long
34	AQ included in staff induction	Awareness raising	Low	Low	17	Long
13	Integrated Pollution Prevention and Control	Reduce emissions	Low	Low	18	Long
14	Smoke Control Areas	Reduce emissions	Low	Low	19	Long

Chapter One

Introduction

Part IV of the Environment Act 1995 and Part III of the Environment (Northern Ireland) Order 2002 places a statutory duty on all local authorities throughout the UK to periodically review and assess air quality within their areas, in order to determine the likelihood of complying with prevailing health-based objectives for a number of pollutants (Table 2). The UK Air Quality Strategy provides the over-arching themes to management of air quality in the UK.

Those local authorities that determine that air quality in their area will fail to meet health-based objectives are required to declare the exceedence area an Air Quality Management Area (AQMA). Section 84 (2) of the Environment Act and Article 13 (2) (b) of the Environment (Northern Ireland) Order 2002, require that local authorities that have declared AQMAs prepare a written plan – commonly referred to as the Air Quality Action Plan - in pursuit of the achievement of air quality standards and objectives within the designated area.

Where road traffic has been identified as the main emission source responsible for exceedences of pollutant objectives, local authorities in England are encouraged to integrate their Action Plan into their Local Transport Plans.

In drafting this Action Plan consideration has been given to the following key areas.

- Assessment of the various options to improve air quality within the City of Kingston upon Hull.
- Evaluation of the likely costs and benefits, resulting in proposals for the most cost-effective solutions.
- Timescale for implementation of the proposed measures
- Quantification of source contributions to pollution

In order to determine whether the Air Quality Objectives (Table 2) could be met in Kingston upon Hull, reviews and assessments were carried out and the various reports of the findings published. These reports are listed in Table One.

Table One: Review and Assessment Reports.

Date	Name	Purpose
January 1999	Stage One Review & Assessment	To screen out sources that would have no impact.
December 2000	Combined Stage 2 & 3 Review & Assessment.	To look in more detail at sources not screened out in Stage One.
May 2003	Update and Screening Assessment.	To revisit the previous reports and detail any factors that may now have changed and to include information gained since the publication of the previous reports.
May 2004	Detailed Assessment	To look in very close detail at those areas highlighted in the Update and Screening Assessment.
April 2005	Annual Report 05.	A report to Government on the progress of the Review and Assessment regime and to highlight any changes since the previous report(s).

The Detailed Assessment in 2004 indicated a likely exceedance of the Government's annual average objective for nitrogen dioxide in 2005, at locations adjacent to the A63 Trunk Road. The Council was therefore obliged to declare an Air Quality Management Area (AQMA) and did so in August 2005.

As a result of the declaration of the AQMA, Kingston upon Hull City Council is required to prepare an Action Plan. The overall aim of this Action Plan is to identify how the Council will use its existing powers and also work in conjunction with other organisations in pursuit of the Air Quality Objectives, thus working to minimise the effects of pollution on human health.

Action Plan Methodology.

After a series of consultation exercises (*detailed in Appendix Two*) all of the options put forward during the consultation events were listed and a rough assessment made of their feasibility. The assessment identified the pros and concerns, the social and economic cost in addition to identifying who would be responsible for implementing the proposals.

Meetings were held with the Highways Agency and Transportation Policy and Planning Sections of the City Council. At these meetings a rough prioritisation of the measures was determined and those proposals that were deemed to be impractical were eliminated from the list.

There has been a great deal of discussion and local support for a “cut and cover” scheme for the section of the A63 that is the main contributor to the exceedance which resulted in the declaration of the AQMA. The scheme involves lowering the existing road surface to make a direct route for through traffic, and then covering this with a local road. The scheme has been designed to primarily serve the needs of the business community and improve accessibility to both Hull City Centre and the port by reducing congestion on the A63. The scheme will help to reduce severance of the waterfront area from the rest of the City Centre.

This scheme was recommended by the Regional Transport Board in January 2006 and the Government have recently indicated that they may be prepared to enter a scheme in the Highways Agency’s targeted programme of improvements (tpi) as early as 2007 subject to further evaluation. As even in the shortest and most optimistic time scale, works are not expected to start for three to four years, and there is still the possibility that works may not take place at all, it was agreed that this option, whilst it could possibly resolve the AQMA issue in one measure, should be left out of the Air Quality Action Plan at this stage.

It is clear that no single measure will resolve the problem, so the options were grouped into packages, most if not all complimenting the Local Transport Plan which is summarised later in Chapter Three. These packages are listed below and examples of each option are presented in Chapter Four. Clearly some of the options could fall into more than one category and have been assessed under each, but for simplicity, they are only listed in one.

- **Awareness raising.**
- **Reduce Sources.**
- **Minimise emissions.**
- **Demand Management Measures**

Over and above the measures we have listed, there are measures that are being considered nationally. Whilst not listed explicitly in this Action Plan, we will be considering the range of national measures and making representations to the relevant national bodies with our opinions in due course.

Aims and Objectives of the Action Plan.

The overall aim of the Action Plan is to identify how the Authority will use its existing powers and also work in conjunction with other Organisations and Agencies in pursuit of the Air Quality objectives, thus working to minimise the effects of pollution on human health.

The Action Plan should consider measures to improve air quality within the AQMA in particular; however there are also actions that can be taken across the City to improve background pollution levels generally.

The objectives of the Action Plan are as follows;

Primary Objective

To achieve the National Air Quality objective for nitrogen dioxide (annual average), of 40 µg/m³, within the Air Quality Management Area for the A63 Trunk Road (AQMA No.1 Order 2005).

Secondary Objectives

- To reduce air pollution as a whole within the entire City.
- To inform the public and provide relevant and up to date air quality information.
- To continue to enforce air quality legislation within the City.
- To continue to work with the KUHCC Transportation and Strategy Unit to improve air quality via initiatives in the Local Transport Plan.
- To ensure that all council activities are considered with reference to their effect on air quality.
- To support National Initiatives to improve air quality including liaison with DEFRA and the Department of Transport.

Table 2: Objectives included in the Air Quality Regulations 2000 and (Amendment) Regulations 2002 for the purpose of Local Air Quality Management

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene All authorities	16.25µg/m ³	running annual mean annual mean	31.12.2003
Authorities in England and Wales only	5.00µg/m ³	running annual mean	31.12.2010
Authorities in Scotland and Northern Ireland only ^a	3.25 µg/m ³	running annual mean	31.12.2010
1,3-butadiene	2.25µg/m ³	running annual mean	31.12.2003
Carbon Monoxide Authorities in England, Wales and Northern Ireland only ^a	10.0 mg/m ³	maximum daily running 8-hour mean	31.12.2003
Authorities in Scotland only	10.0 mg/m ³	running 8-hour mean ^b	31.12.2003
Lead	0.5µg/m ³	annual mean	31.12.2004
	0.25 µg/m ³	annual mean	31.12.2008
Nitrogen Dioxide^c	200µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40µg/m ³	annual mean	31.12.2005
Particles (PM10) (gravimetric)^d	50 µg/m ³ not to be exceeded more than 7 times a year	24-hour mean	31.12.2004
All authorities	40 µg/m ³	annual mean	31.12.2004
Authorities in Scotland only ^e	50 µg/m ³ not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 µg/m ³	annual mean	31.12.2010
Sulphur Dioxide	350 µg/m ³ not to be more than 24 times a year	1-hour mean	31.12.2004
	126µg/m ³ not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m ³ not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

^a In Northern Ireland none of the objectives are currently in regulation. Air Quality (Northern Ireland) Regulations are scheduled for consultation early in 2003.

^b The Air quality Objective in Scotland has been defined in Regulations as the running 8-hour mean, in practice this is equivalent to the maximum daily running 8-hour mean.

^c The objectives for nitrogen dioxide are provisional.

^d These 2010 Air Quality Objectives for PM10 apply in Scotland only, as set out in the Air Quality (Scotland) Amendment Regulations 2002

^e These 2010 Air Quality Objectives for PM10 apply in Scotland only, as set out in the Air Quality (Scotland) Amendment Regulations 2002.

From table 2 and the results shown in tables 3-7 in Chapter 2, it can be seen that only the annual mean nitrogen dioxide will exceed the Air Quality Objectives.

Chapter 2

The Current Position.

Introduction to the Area of Kingston upon Hull

The City of Kingston upon Hull is located on the north bank of the River Humber at its confluence with the River Hull. It is some 15 km east of the Yorkshire Wolds and about 25 km west of the North Sea. Land in the area is generally flat, lying some 2 to 4m above sea level. The River Hull bisects the city in a north south direction. The opening bridges over the navigable waterway cause a major obstacle to east-west transport movement through the area.

Hull is a historic city with a population of 243,595 (2001 Census) and an area of some 7,145 ha. The built up area, including the adjoining suburbs has a population of 325,000. The area north of the Humber for which the city provides the majority of jobs, entertainment, social and community facilities, known as the Hull Travel to Work Area has a population of 434,000.

Today the urban area forms a semicircle with an average radius of some 7km. The pattern of major roads has developed from routes radiating from the historic centre to the suburbs and villages beyond. The distribution of major land uses owes much of its origins to the River Hull and the Humber estuary, along which most of the major industries, port areas and docks that have developed forming an inverted 'T' shape. The two segments of the City between these industrial areas are primarily housing with significant open areas defining the boundaries of communities.

Kingston upon Hull is one of Yorkshire's major cities. It is a considerable distance from other major centres; York is some 60 km and Leeds some 90 km away. Consequently, the City has developed as a sub-regional centre for a wide area on the north bank of the River Humber.

Transport in the Area

In recent years Hull has gained a much improved road network, greatly reducing the City's relative isolation from the rest of the country. The A63 (T) provides a direct link to the national motorway network. The A15 (T) across the Humber Bridge provides a fast link to eastern England, and the A1079 (T) has been progressively upgraded providing better links with the north. In addition, three sides of an Orbital Box of roads have been constructed around the City Centre, enabling extensive pedestrianisation of the main shopping area.

Hull is relatively well served by buses, with frequent services along radial roads to the City's housing estates and regular out-of-town services to surrounding towns and villages. A new state of the art bus/rail interchange is currently being built as a part of the St Stephens Development which is due to be completed in August 2007.

Passenger rail services link Hull to the East Coast Main Line at Doncaster and York, the major northern cities of Sheffield, Leeds and Manchester, and the coastal resorts of Bridlington and Scarborough. The railway station is located in the City Centre, adjacent to the bus station and main shopping and commercial areas.

North Sea Ferries operates daily sailings for passengers and cars from King George Dock to Rotterdam (Holland) and Zeebrugge (Belgium). The number of passengers carried on the ferries has now grown to over a million annually.

Freight movements are particularly significant in Hull, as the City is a major UK port and an important industrial centre. The City has daily freight ferry services across the North Sea to Holland and Belgium and regular freight-only services to a wide range of other European and international destinations. Most freight travels to and from the industrial areas and docks by road and benefits from the extensive road improvements of recent years. The freight-only High Level Railway also serves King George Dock.

Industry in the Area

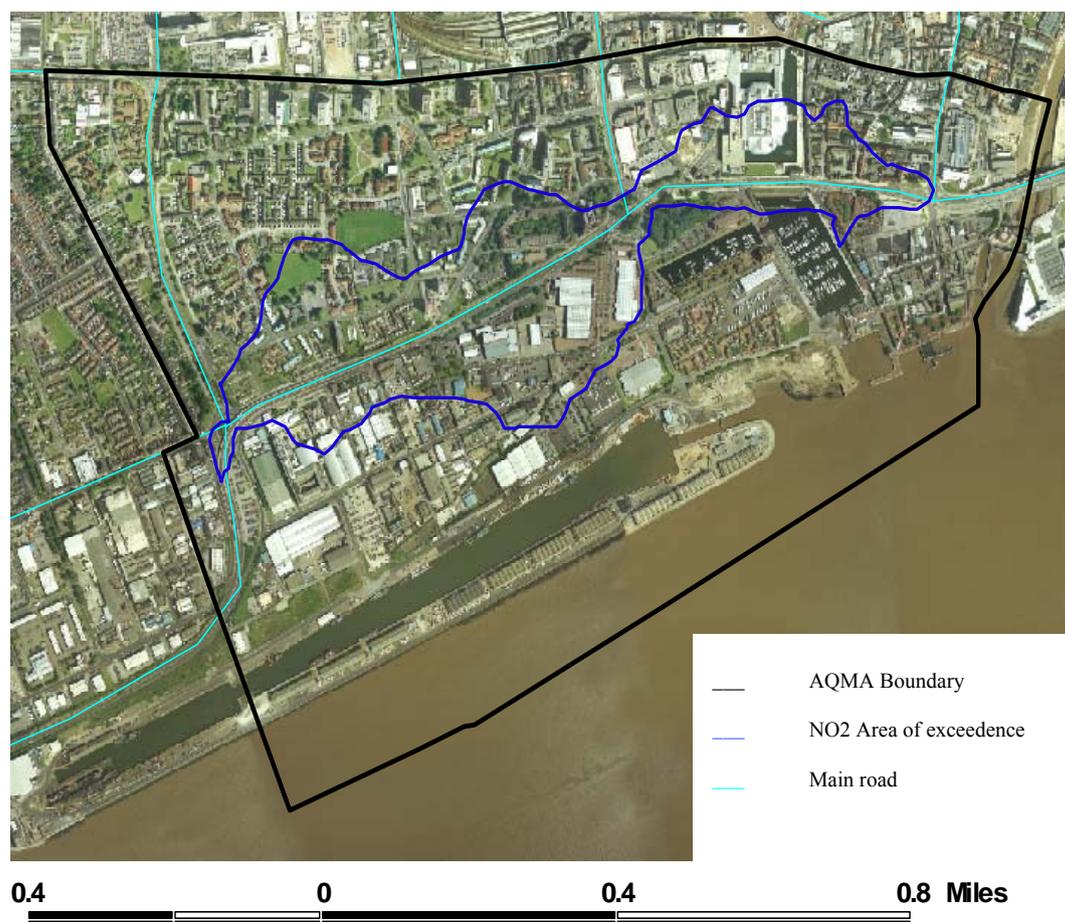
The bulk of the main industries are located in an east and westerly direction along the north bank of the River Humber and to the north on each bank of the River Hull. Primary industries in Hull include those associated with the maritime industry, food processing, ICT or digital, engineering, tourism and a variety of manufacturing businesses.

Some industries in Hull are required to be permitted under the Pollution Prevention and Control Act 1999. This is to ensure any air pollution they might cause is controlled to below acceptable specified limits. In total there are 109 'Part B' permitted activities which are under local authority control, 7 'Part A1' permitted activities controlled by the Environment Agency and 3 'Part A2' permitted activities regulated by the local authority.

Current Position

Whilst air quality in Hull is generally good for a City of its size, the Review and Assessment did show that road traffic emissions lead to an exceedance of the annual mean objective for nitrogen dioxide in an area around the A63 Trunk Road. At the worst affected location a reduction in $5\mu\text{g}/\text{m}^3$ is required by the proposed measures in order to comply with the objective.

Figure 2. The Boundaries of the Air Quality Management Area



The blue marking the area of exceedance is -1 Standard Deviation of the $40\mu\text{g}/\text{m}^3$ annual average for nitrogen dioxide. This equates to $38\mu\text{g}/\text{m}^3$ and accounts for the uncertainty inherent in the modelling process.

The tables on the following pages show the monitored levels at the three stations around the City. More information on the Quality Assurance and Quality Control involved in gathering the data can be found in Hull City Council's previous Review and Assessment Reports.

Annual mean NO₂ Results

Table 3

	µg/m ³			
	2002	2003	2004	2005
Stoneferry ¹	32	34	28	<u>21</u>
Hessle Rd ²	35.5	36	31	<u>31</u>
Freetown Way ³	- ⁴	34	27	<u>n/a</u> ⁵

¹Stoneferry ended 31/10/04 Golf Centre commenced 01/01/05.

²Previously called Castle St/Myton Centre.

³National network site.

⁴Relocated from Queens Gardens.

⁵< 75% data capture..

[Provisional data for 2005](#)

SO₂ results from Freetown Way

Table 4

AURN	2002 (µg/m ³)		2003 (µg/m ³)		2004 (µg/m ³)		2005 (µg/m ³)	
	>	Days	>	Days	>	Days	>	Days
15 min mean (266 µg/m ³)	5	3	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
1 Hour mean (350 µg/m ³)	0	0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
24 Hour mean (125 µg/m ³)	0	0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Source: http://www.airquality.co.uk/archive/data_and_statistics.php (May 2006)

[Provisional data for 2005](#)

Annual Mean PM₁₀

Table 5

	Data Capture %	Annual Mean (µg/m ³)	TEOM x1.3	Daily Exceedences
1994	-	26	34	39
1995	-	24	32	36
1996	-	25	33	4
1997	-	24	32	34
1998	-	22	29	17
1999	-	21	28	17
2000	-	20	26	6
2001	-	21	28	17
2002	-	*no data	*no data	*no data
2003	-	22	29	0
<u>2004</u>	<u>95</u>	<u>22</u>	<u>29</u>	<u>0</u>
<u>2005</u>	<u>95</u>	<u>23</u>	<u>30</u>	<u>0</u>

*No exceedences in 2002. Post 2002 results are from the Queens Gardens Site. After 2002 the results are from the Freetown Way site.

Source http://www.airquality.co.uk/archive/data_and_statistics.php (May 2006) Provisional data for 2005

Annual Average CO from Freetown Way

Table 6

2001	2002	2003	2004		2005	
mg/m ³	mg/m ³	mg/m ³	mg/m ³	Data Capture %	mg/m ³	Data Capture %
2.2	no data	0.2	<u>0.1</u>	<u>94</u>	<u>n/a</u>	<u><75%</u>

Source: http://www.airquality.co.uk/archive/data_and_statistics.php (May 2006)

Annual Average Benzene from Freetown Way

Table 7

AURN	Data Capture %	Annual Mean
2002 (µg/m ³)	100	1.9*
2003 (µg/m ³)	100	1.4
2004 (µg/m ³)	100	1.2
<u>2005 (µg/m³)</u>	<u>99.5</u>	<u>1.3</u>

*Limited data as monitoring commenced 07/11/02
Some provisional data for 2005.

With car ownership in Hull being well below the national average (51% of households in Hull with no car compared to a national figure of 32 %-(Source 1991 Census)); car flows and consequently congestion are perceived as less severe than in many places; however the A63(T) is one of the exceptions to this.

The A63(T) is the busiest road in Hull carrying some 55,000 vehicles a day up to 15% of which are HGV's. It is the main route in to the City and the docks from the East and West and it forms part of an International Euroroute (E20). Flow is hindered on the route due to vehicle and pedestrian traffic lights as well as one of the eight opening bridges (with priority for river traffic) that cross the River Hull that cuts the City in half in a north/south axis.

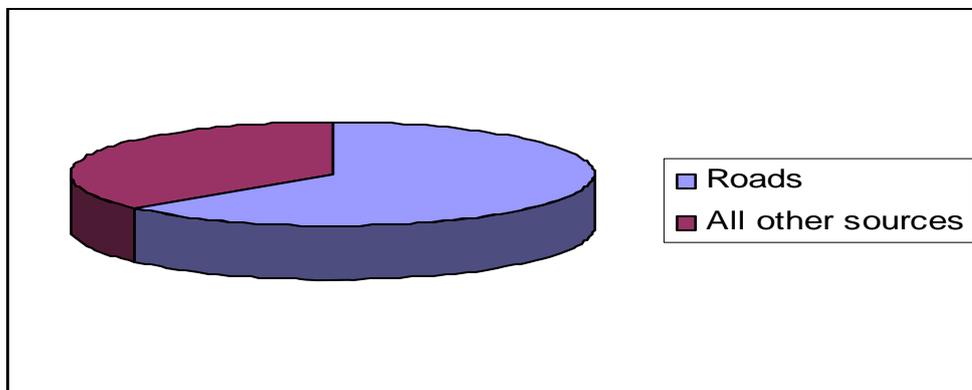
The area around the trunk road is mixed industrial and commercial with a small number of flats and housing developments to the South and mainly residential to the North until the junction with the A1079 when it becomes mainly commercial, but even in this section, there are a number of residential developments, some fronting onto the main road.

There are no large point source emissions of NO_x inside the City boundaries and modelling work has shown that there are none outside the boundaries that have a significant impact in Hull. The main area affected from sources external to Hull tends to be further along the trunk road on the A1033.

As part of the initial stages of the Review and Assessment process, an emissions inventory of releases was compiled. This has been regularly updated as further information comes to light or changes in emission rates occur.

Analysis of the inventory data on the area of the AQMA shows that at 64%, by far the largest single source for the Oxides of Nitrogen is road traffic. The other sources comprise emissions from a variety of other sources including domestic, commercial and industrial and minor roads. Sources from outside the area have not been included as they are to be addressed by national measures or by the relevant neighbouring authority.

Figure 3: NO_x Emissions by source within the area of the AQMA



A closer examination of the road traffic element shows that by far the largest contribution comes from the area around the A63. Sensitivity analysis showed that the 15% of HGV that make up the road traffic contributes 60% of the total NO_x emissions from traffic.

Chapter 3

Policy Context

This Action Plan contributes to the following corporate aims of Kingston upon Hull City Council:

1. Quality Living: by safeguarding the health, safety and welfare of people.
2. Quality Neighbourhoods: by protecting and enhancing the environment.
3. Quality Schools: by carrying out health promotion.
4. Quality Services: by investing in the training and development of staff to work to Quality Assured procedures, which reflect the needs of the customers by routinely consulting customers to determine their level of satisfaction with the services we deliver, and by striving to continuously improve our services.

It also contributes to the Public Protection Division's primary purpose as detailed in the Service Delivery Plan, which is:

To protect, maintain and improve the health, safety, welfare and environment of the people of Hull, to help reduce crime, the fear of crime and anti social behaviour; to increase life expectancy by reducing accidents, ill health and early death; to ensure a safe and fair trading environment in which industry and commerce can flourish; and to support business to be more competitive.

The Plan will also compliment and contribute to the Local Transport Plan and specifically Local Objective 4: To promote a healthier City through improving air quality and encouraging cycling and walking.

Issues raised within the LTP

The Local Transport Plan offers a series of comprehensive measures which are aimed at improving transport and road safety in the City.

The LTP sets out the vision and aims for transport in Hull for the next five years. The plan presents:

- the transport issues facing the city
- the priorities for transport over the next few years
- how these priorities will be met
- the strategies developed to meet specific targets
- how the programme of works needed will be financed

There are four main objectives for transport in Hull over the next five years:

- Delivering accessibility

- Better air quality
- Safer roads
- Reducing traffic congestion

These local objectives are based on the Department for Transport's 'shared priorities' and on the Hull City Council's transport vision.

Our vision: **Delivering accessibility**

Local objective: To ensure that good levels of accessibility, especially by public transport, are integrated with planned changes to the City in the health, housing, education, and employment sectors.

Our vision: **Better air quality**

Local objective: To promote a healthier City through improving air quality and encouraging cycling and walking.

Our vision: **Safer roads**

Local objective: To maintain and improve road safety on the City's roads.

Our vision: **Reduce Traffic Congestion**

Local objective: Reducing congestion on all forms of transport and maximise the ability of transport networks to meet the social and economic needs of the community.

This vision for transport is underpinned by the desire to improve 'quality of life in' Hull, through:

- better streetscapes
- better personal security
- healthier communities
- neighbourhood renewal/regeneration
- less traffic noise
- tackling climate change

The full plan is available from Council Offices, by ringing 01482 300300 or it can be downloaded or viewed on the web at

http://www.hullcc.gov.uk/portal/page?_pageid=221,161326&_dad=portal&_schema=PORTAL

Hull Freight Strategy

Along with the Local Transport Plan, the Council have also published a Draft Freight Strategy for the City. This report has outlined a number of recommendations, and the extent to which they meet LTP objectives.

However it is recognised that to carry out all of the recommendations might be cost prohibitive, and the benefits gained from each recommendation would also vary.

An action plan has been produced comparing the cost of implementation of each recommendation, along with the benefit gained from implementing the recommendation.

Rather than a financial cost, a simple 'High, Medium or Low' rating has been given to cost. As an approximation a low cost has been assumed to be under £50,000, medium between £50,000 and £100,000 and high above £100,000. A similar rating has also been given for benefit.

The action plan also gives information on targets to be met from implementing each recommendation. It shows the parties that will be involved, and importantly the timescale envisaged for each recommendation to be implemented. Naturally the timescale is dependent on the availability of resources. The action plan splits recommendations into issue groups, with a code number, which can be used as a reference so as to avoid confusion when discussing the recommendations in the future

The cost benefit table is shown in Appendix Three and the full document is available from Council Offices, by ringing 01482 300300 or it can be downloaded or viewed on the web at:

<http://www.hullcc.gov.uk/pls/portal/docs/PAGE/HOME/TRANSPORT%20AND%20STREETS/TRANSPORT%20PLANNING/HULL%20FREIGHT%20STRATEGY%20DRAFT%20REPORT.PDF>

Chapter 4

Proposed measures

This chapter covers a number of measures considered by the LA in order to achieve the necessary reductions in air pollutant concentrations and/or emissions. It includes a suite of 'soft' measures and consideration of interventions that may contribute significantly to achieving the objective.

It is clear that no single measure will resolve the problem, so the options were grouped into packages, most if not all complimenting the Local Transport Plan which is summarised in Chapter 3. These packages are outlined below and examples of each option are given later in this Chapter. Clearly some of the options could fall into more than one category and have been assessed under each, but for simplicity, they are only listed in one.

Awareness raising.

A series of measures are listed with the aim of putting the air quality impact of actions further up the priorities of the public and decision makers. These tend to be low cost options with a long lead in time, but that may ultimately have the biggest and most sustainable impact.

There is often a limited way of measuring success and it has been argued that it is an almost impossible task to get people to not use private vehicles. We take solace in the example of tobacco smoking. A decade ago, it would have been almost inconceivable that it could be restricted much at all, but now we find little outcry at it being banned from indoor public places.

Reduce Sources.

In this instance, this primarily means the internal combustion engine although all sources will be considered. Any reduction in the use of the road transport will need to be supported by alternative modes. There will also need to be a balance between improving air quality and at the same time not restricting trade, commerce and free will or contribute to social exclusion.

Minimise emissions.

Where road transport is still required, making alternative fuel and power sources available and giving people better information on their fuel options is a reasonable way of reducing the air quality impact.

Demand Management Measures

No matter how effective the other measures are, there will always be demand for road space, the measures listed under this heading are those aimed at controlling road users to minimise congestion and limit their air quality impact.

Appendix one lists the main measures that have been considered. A brief summary of each option then follows, and thoughts on the practicalities of implementing them in Hull. This section presents the conclusions for which options are to be pursued under each of the criteria.

Some options could take a relatively short term to get approved, but could take a long time to be implemented.

The categories for financial cost are subjective to a degree as some of the measures are being considered for reasons other than air quality, which on the one hand makes them zero cost but on the other could remove some of the input we could otherwise have.

For the sake of simplicity, a rough balance was drawn between the number of people positively affected and those that the measures could have some form of negative impact on. Clearly the extent and nature of the impacts in either case are also factors.

The following pages look at the options under each category and filters out those that are deemed more suitable for progression. The rankings are discussed in the next chapter.

The timescales have been categorised as follows: Short is within two years, medium is two to five years and long is greater than five years. Some will straddle two categories as it is probable that after an initial impact, further uptake will occur at a reduced rate.

Notes from various meetings giving the summarised comments from the interested parties are included in the latter part of Appendix 1.

Table 8 Awareness Raising Measures.

	OPTION	Grouping	Cost £	Cost ☺	Pros	Cons	Timescale
16	Publish AQ data	Awareness Raising	med	Low	Raises awareness of AQ and issues	needs consistent approach. Other demands on officers	Short
17	School curriculum	Awareness Raising	low	Low	Raises awareness of AQ and issues	needs consistent approach. Other demands on officers and teaching staff	Short
33	AQ objectives included in Annual Performance Reviews of Staff/Departments	Awareness Raising	low	Low	>awareness <pollution <fuel costs.	Perception and workload	Medium
34	AQ included in staff induction	Awareness Raising	low	Low	>awareness <pollution <fuel costs.	None?	Medium
38	Increase awareness	Awareness Raising	med	Low	web site and campaigns could lead to >awareness of other issues.	workload and consistency of approach. Some duplicity issues.	Short
43	Links with research groups	Awareness Raising	med	low	raise awareness, promote debate and research	very long term, possibly no solution.	Short
45	Investigate Sussex example for issuing text alerts on days of poor air quality	Awareness Raising	Med	Low	Reduced potential for medication or hospitalisation.	resources	Short/med

Awareness raising

The items listed relate to table 8

Item 16.

Publish air quality data. To some extent this is already done, although it is agreed that more could be done with locally generated data. The data from the Automatic Urban Network (AUN) operated by Defra, is readily available on the internet. Local data is made available, but more in the form of annual averages than files of raw data, and even then this is done through other reports or on request. There are resource implications for extending the existing arrangements and it is felt that these outweigh the overall air quality benefits of this option. It is however an option that will be pursued if the right opportunity presents itself and costings have been sought during meetings with suppliers.

Item 17

Include educational packages to be utilised in the national curriculum. Packages already exist that use air quality as a worked example to help educate children in areas of the national curriculum. For example, one package uses emissions from a motor vehicle per mile to assist with various mathematics key stages. This is seen as a cost effective and viable option to be pursued.

Item 33.

Air Quality objectives to be included in Annual Performance Reviews of Staff and Departments. This is seen as an achievable option, and could be used to demonstrate how the Council is leading by example, provided that measurable and realistic goals are set and therefore needs more thought before it could be implemented.

Item 34

Air Quality included in staff induction. It has been suggested that this could be widened to talks with all staff as part of a rolling programme of information dissemination. To some extent the latter is already carried out to specific target audiences and tailored to their specific needs. Open talks have limited interest. It is felt that including Air Quality in staff induction is a viable option. Further dissemination will be carried out on an “as required” basis. Hopefully this will increase as the full package of awareness raising measures rolls out.

Item 38

Increased Awareness. This option covers all aspects of this section and utilises a variety of media including IT (web site development) and other tools to reach a wider audience. Much is related to the availability of resources, but it is felt that much can be achieved using existing in house expertise and facilities.

Item 43

Links to research groups. It was suggested that links could be developed with the University, possibly to encourage research into alternative fuels. Closer contact is to be pursued, although it is debatable what benefits we could offer the University to induce partnership working.

Item 45

Text alerts. Systems can be created to warn people of days of poor air quality so that they can take active measures to avoid being affected. A trial in Sussex is to be reviewed and its suitability for Hull determined. Discussions are on going with neighbouring authorities regarding a regional approach.

Conclusions for awareness raising.

Items dismissed

None

Items to be pursued when resources allow.

The greater publication of air quality data.

It is felt that whilst data is not readily accessible to people outside the section, any request for data is dealt with fully and promptly. Whilst it would be preferable to have easier access to data, preliminary assessments have shown that this will have limited benefit on air quality levels, however it could free up resources that are currently used in answering requests for air quality data. Costings have been sought for a number of options.

Links to the university and other research bodies.

There used to be a number of connections to the University that worked well, however as staff and priorities have changed within both the university and Local Air Quality Management, these tailed off. It is felt that connections are valuable, but that the impact on air quality is a matter of further debate and consideration.

Text alerts.

The running costs and uptake of the scheme in Sussex is to be ascertained.

Items to be pursued

Educational packages as part of the national curriculum.

This is to be pursued in house with packages already in existence and utilising existing resources and contacts built up by the Health Education unit. This is expected to have a low overall impact on air quality, especially in the short term.

Air Quality included in annual performance reviews.

It is felt that this is an option well worth pursuing as it will reach a large number of people (potentially over 10,000 employees) that all live in the region. It will also help to demonstrate that the authority is leading by example. This is expected to have a low overall impact on air quality, especially in the short term.

Air Quality included in staff induction.

This will not reach the numbers of the previous option due to the relatively low turn over of staff within the Authority; however it is seen as a complimentary measure and will hopefully encourage staff to consider the local air quality impact of their specific functions and lifestyles. This is expected to have a low overall impact on air quality, especially in the short term.

Increase Awareness.

This is fundamental to the smarter measures of this section and includes such initiatives as the environmental awareness campaign for school children (Green Gladiator) schemes and will hopefully be added to with walking bus and other related packages as a joint venture with the school travel plan co-ordinator. This is expected to have a low overall impact on air quality, especially in the short term.

Table 9 Source Reduction Measures.

	OPTION	Grouping	Cost £	Cost J	Pros	Cons	Timescale
8	Cycle and walking schemes	Reduce Vehicles	Low	Low	>Health <congestion	accident prevention	Short
9	Green Travel Plans (including school staff and pupils)	Reduce Vehicles	low	Low	> Health <congestion	implementing and sustaining	Short
22	Park & Ride	Reduce Vehicles	High	low	Reduces vehicles travelling into City Centre	High capital and running costs. Little evidence of improvements in AQ	Short/Med
27	Low emission zones	Reduce Vehicles	High	Med	Safety, community activity <noise	Prejudices older cars. Enforcement, trade decline	Med/Long
29	Car Pool Scheme	Reduce Vehicles	Low	low	> Congestion >social Interaction	Co-ordination	Med/Long
35	Liason with Primary Care Trust for health/AQ statistics	Reduce Vehicles	med	low	>targeting of issues. >opportunity to get feed back from at risk groups.	Workolad, Data Protection	Short
40	Incentive schemes for car share, travel passes, cycling allowances. Staff bikes	Reduce Vehicles	med	low	>parking spaces (conflict with parking charge scheme?) Lead by example >use public transport	Staff perception anti car, <income.	Medium

Reducing Sources

The items listed relate to Table 9

Item 8.

Cycle and Walking schemes. This option will also compliment those in the awareness raising section. There are a variety of measures and resources available as it has a number of other benefits such as road safety and fitness.

Item 9

Green Travel Plans. On the face of it, this looks like a reasonable option, especially if it is tied into some of the other smarter options. However, some respondents to the consultations that had experience of implementing travel plans felt that any potential benefits were out weighed by the limited uptake and efforts required in implementation. The Council is currently drafting a travel plan and it is expected that Green Travel Plans will be pursued further.

Item 22

Park and Ride. A number of schemes are in existence, and it is proposed to add to these in due course. One respondent from the consultation pointed out that there could be additional benefits if this option was considered in conjunction with the options for green travel plans, and low/zero emission buses as well as real time information on public transport.

Item 27 and 4

Low emission zones. Transport experts and planners felt that any measures under this heading would be problematic due to the local road layouts. It was also felt that there could be issues associated with the economics of the area which would tip the cost benefit balance of measures.

Item 29.

Car Pool scheme. A scheme was trialled by Public Transport during the recent bridge closure and was little used but is still in operation. Unless a private group decided to pursue it independently, a feasibility study would be required if a further scheme was to be mooted although the corporate travel plan (Item 9) may enable this to develop.

Item 35

Liaison with Primary Care Trust. This is already occurring, but needs to be developed further.

Item 40.

Incentive schemes to use alternative travel to the private car. This was felt to be a potential option only if it could be fully resourced.

Conclusions for reducing sources

Items dismissed

Low emission zones. It was felt that the cost of implementation and enforcement and potential effect on trade as well as the perception of social exclusion meant that the probable limited air quality benefits would be out weighed.

Items to be pursued when resources allow.

Green Travel Plans. This will be investigated further by discussing different plans with people who have experience of implementing them. Whilst they are seen as useful and helpful in raising the profile of air quality issues, the costs in resources and air quality benefits move it lower down in the current list of priorities although the Council are looking to progress this in the near future.

Car pool scheme. It was felt that the cost of promoting and implementing a scheme would be restrictive, especially after the previously low uptake of similar schemes. Should a private group decide to pursue it independently, it would be actively supported.

Incentive schemes. Resource implications, combined with the limited potential for air quality improvements mean that other means of promoting a modal shift are more attractive.

Items to be pursued

Cycle and Walking schemes. Due to the many other benefits of such schemes and the experience of other areas within the authority, it is felt that this is a suitable scheme to progress, especially in conjunction with other smarter measures. This is expected to have a low overall impact on air quality, especially in the short term.

Liason with the Primary Care Trust. As they are a large employer, a fleet user and health experts and as they meet the members of the public most susceptible to the impacts of poor air quality, it is felt that an expansion of the existing working arrangements and sharing of best practice, built up by the Health Education Team would be beneficial. This is expected to have a medium overall impact on air quality due to the location of the hospital.

Table 10. Emission minimisation measures.

	OPTION	Grouping	Cost £	Cost ₤	Pros	Cons	Timescale
2	Roadside Emission Testing	Reduce Emissions	Med	Med	Increased awareness	Social Exclusion	Short
3	Low emission Busses	Reduce Emissions	High	Low	Improved AQ. Could be offset by less demand if > price	Could increase cost of Bus travel	Long
5	Low emission taxis	Reduce Emissions	High	med	Slight aq improvement. Could be offset by less demand if > price	Could increase taxi fares	Med/long
6	Low emission goods vehicles	Reduce Emissions	High	med	reduced emissions	difficult to enforce, some trade/delivery issues	Long
13	IPPC	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Short
14	SCA	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Short
15	Energy Efficiency	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Med/long
21	Zero pollution public transport	Reduce Emissions	High	low	Zero pollution at source	Depends on adopted technology, but could increase pollution in other areas.	Long
30	Car Scrappage Schemes	Reduce Vehicles	High	High	Newer vehicle fleet <emissions	Old cars scrapped anyway	Med/long
32	Idling vehicles legislation	Reduce Emissions	med	low	Saves fuel >awareness <Pollution	Perception - anti car measure. Workload/man power	Short
36	Tree planting/green field policy	Reduce Emissions	med	med	>awareness >environment	Workload	Med
37	Reducing pollution from Council vehicles/activities	Reduce Emissions	med	med	<pollution objectives usually lead to < costs due to >efficiency	Avoid duplicity	Med
41	Energy efficiency schemes	Reduce Emissions	med	low	objectives usually lead to < costs due to >efficiency	Avoid duplicity	Short

Minimise Emissions

The items listed relate to Table 10

Item 2

Roadside emission Testing. It was felt that this would have a limited overall impact on air quality and care would need to be taken when determining the location of the test area. It was also mooted that this could be seen as an anti-car and a socially divisive measure. However, if these issues could be addressed, it was felt to be an option to be investigated further as the awareness raising potential could be utilised.

Item 3

Low emission buses. The Council's Transportation Policy manager commented that to some extent this is on going and requirements are placed on operators for environmental vehicles.

Item 5

Low emission taxis. Conversions to LPG can reduce boot space to below that required by the licensing authority. It was also argued that taxi cabs are already to subject to more frequent and more stringent tests than other cars and that additional expenditure could result in price increases.

Item 6

Low emission goods vehicles. It was felt that this could only be achieved by either national measures or by encouraging larger operators to convert using some form of inducement. It was felt that it could be difficult to enforce and that there could be issues relating to restrictions on trade.

Item 13.

IPPC (Integrated Pollution Protection and Control), processes within the City boundary that meet prescriptive requirements are required to meet conditions laid down by the Local Authority or the Environment Agency before they can operate.

Item 14.

SCA (Smoke Control Area). For over a decade, the whole of the City has been designated as a smoke control area. This legislation is enforced and those few people found in breach of it are advised of the situation.

Item 15.

Energy efficiency, this is being carried out within the authority, but it is felt that we could do to develop better links and tie the measures in with measures such as those of items 33 and 34 which relate to staff induction and performance targets.

Item 21.

Zero pollution public transport. This mainly relates to vehicles that emit zero pollution at the point of use. There will still be emissions from the point of power generation. The infrastructure required to operate electric vehicles is expensive and tends to remove road space from other vehicles, making this a less viable option for a number of reasons.

Item 30

Car scrappage scheme. Car scrappage schemes may have beneficial effects through the introduction of cleaner vehicles, but may increase the environmental consequences of vehicle construction and dismantling. More emphasis on vehicle maintenance supported with item 2, roadside emission testing, could achieve similar ends for less resources.

Item 32

Idling Vehicle Legislation. Legislation exists that allows Authorities to force drivers to switch off engines if they are expected to be stationary for an extended period of time, such as at railway crossings. The aim is not for penalties or fines to be issued, but for the situation to be explained to the drivers with legal enforcement used as a last resort.

Item 36

Tree planting and green field policy. To some extent this already occurs, but it is hoped to get some involvement in the process and use it as a tool for raising awareness in supporting the other environmental benefits.

Item 37

Reducing pollution from Council Activities. This item compliments items 33 and 34, which have already covered staff awareness and adding air quality improvements to performance indicators. The fleet operators for the Council have won a number of awards for their approach to environmental issues and it is hoped to build on this and spread the philosophy further in the Council.

Conclusions for minimising emissions.

Items dismissed

Low emission taxis. Current measures are already felt effective at regulating the contribution from taxis. As taxis provide an alternative to car ownership, any measures that could push up the price of journeys could be counterproductive. A watching brief will be kept on the situation and in the event of any changes, the situation will be reviewed.

Low emission goods vehicles. Where this can be encouraged via other measures, such as green travel plans or by internal measures within the authority, then this measure will be pursued, however, it is felt that national measures, especially aimed at large operators, manufacturers and fuel suppliers would be in a better position to address this.

Zero pollution public transport. The resource implications for the infrastructure required for such transport could push the true cost above what is felt practical.

Car Scrappage scheme. This was seen as resource intensive. It was felt that the resources required could be put to better use in making alternatives to car travel more attractive.

Items to be pursued when resources allow.

None, except the ones mentioned above should circumstances change.

Items to be pursued

Roadside emissions testing. The implications and means of promoting this item are to be investigated further. This is expected to have a low – medium overall impact on air quality, especially in the area of the AQMA.

Low emission busses. As there are already a number of requirements on bus companies to be environmentally friendly, the extent of council support for this is to be investigated further. This is expected to have a medium overall impact on air quality, especially in the short term.

IPPC (Integrated Pollution Protection and Control). This is a statutory requirement that has had a significant impact on local air quality and it will continue to be enforced. Structures are to be further developed that enable the data gathered from the IPPC regime to be more readily usable in the LAQM process. This is expected to have a low overall impact on air quality, especially in the short term.

Smoke Control Areas. This is a statutory requirement and it will continue to be enforced. This is expected to have a low overall impact on air quality, especially for NO_x.

Energy efficiency. This is being carried out within the authority, but it is felt that we could do to develop better links and tie the measures in with measures such as those of items 33 and 34 which relate to staff induction and performance targets. This is expected to have a low overall impact on air quality, especially in the short term.

Idling vehicle legislation. This is to be investigated further with a view to implementing. This is expected to have a high to medium overall impact on air quality due to its locality.

Tree planting and green field policy. To some extent this already occurs, but it is hoped to get some involvement in the process and use it as a tool for raising awareness as supporting the other environmental benefits. This is expected to have a low overall impact on air quality, especially in the short term.

Reducing pollution from Council Activities. This item compliments items 33 and 34, which have already covered staff awareness and adding air quality improvements to performance indicators. The fleet operators for the Council have won a number of awards for their approach to environmental issues and it is hoped to build on this and spread the philosophy further in the Council. This is expected to have a low to medium overall impact on air quality, especially in the short term.

Table 11. Demand Management Measures.

	OPTION	Grouping	Cost £	Cost J	Pros	Cons	Timescale
1	Increase parking fees	Demand Management	Low	Moderate	Makes driving to town less attractive	Social Exclusion	Short
7	Night time deliveries	Demand Management	med	med/low	decreases peak hour traffic > less congestion > improved AQ. May assist in working hours directive. Less congestion>more deliveries.	Noise/staffing co-ordination issues. Traffic space released could be taken up by cars.	Med
10	Traffic Control schemes	Demand Management	low	low	Safer pedestrian/cycle movements. <congestion >AQ	difficult to implement. Knock on effect on other junctions	Short/med
11	Liaison with Highways Agency	Demand Management	low	low	Better opportunity to raise local AQ/traffic concerns	needs to be co-ordinated to prevent 'double talk'	Short
12	Planning Guidance for developers ?S106 agreements? Highways?	Demand Management	low	low	Raises awareness of AQ and issues	needs consistent approach. Other demands on planners	Short
19	Real time information of Public Transport network	Demand Management	med	Low	Reduced uncertainty on travel for public. Bus runs can be staggered if 'bunching' occurs	needs to be co-ordinated, consistent and sustainable	Short
20	Quality Bus Corridors	Demand Management	High	med	More reliable and faster journey times. Public Transport more attractive	Can be public objection re road use/availability for cars. Enforcement needs to be consistent	Med
23	High Occupancy Vehicle Lanes	Demand Management	High	High	Reduced journey times.	Perception, anti car measure. Requires attractive alternative travel option.	Med
24	Road user and workplace charging.	Demand Management	High	High	Reduced peak hour traffic. Raises awareness.	Perception, anti car measure. Requires attractive alternative travel option. May cause 'circling' to find cheaper parking. Cost on trade.	Med

	OPTION	Grouping	Cost £	Cost J	Pros	Cons	Timescale
25	20mph zones	Demand Management	Low	Med	Safety, community activity <noise	> travel times, potential increase in traffic elsewhere. Enforcement	Short/Med
26	Traffic free areas	Demand Management	Med	Med	Safety, community activity <noise	> travel times, potential increase in traffic elsewhere. Enforcement	Med
28	Non-residential parking levy	Demand Management	Low	Med	Safety, community activity	Enforcement. Anti car perception.	Short/Med
31	Speed Regulation	Demand Management	low	med	>safety	> Congestion elsewhere	Med
39	Review car allowances	Demand Management	low	low	>reward for less polluting vehicles	Staff perception anti car, <income.	Medium
42	Promote LPG refueling points	Demand Management	med	low	Improve air quality, >awareness	Cost, requires central funding. LPG low polluting no clean.	Medium
44	Liaison with P & O re ferries	Demand Management	low	low	traffic from ferries, often not used to left hand of road, NOT entering rush hour traffic. Also, low pollution fuels on ferry and rolling stock.	Limited by tide times/turn around time.	Short

Demand Management Measures

The items listed relate to Table 11

Item 1

Car Parking – availability and cost. Reducing the number of spaces and/or increasing the costs were considered as option that have a limited opportunity for success as there is limited control as not all car parks are council owned. There is already an issue with vehicles backing onto the A63 while queuing to get into the Princes Quay car park. When determining car park spaces, a balance needs to be struck between the number of spaces and the charges, which could make the cost restrictive on trade if spaces are reduced too much. There is also a link between the cost of parking spaces and the charge for the park and ride and bus trips from the edge of the City. The charges and availability are reviewed on a regular basis so it was felt best left out of becoming a measure in the action plan.

Item 7

Night time deliveries. It was felt that this option was not really controllable by the Authority, except in very specific circumstances as either part of the planning process or as part of a green travel plan. There were also issues of noise and staffing.

Item 10

Traffic Control Schemes. These are done as a matter of routine on a site by site basis. It was felt that with the existing layout, the measures in place were at there optimum in the region of the AQMA. As there are some alterations to road junctions planned, the phasing of the traffic lights will be reviewed again when the works are complete. It was also mooted that traffic entering the A63 could be controlled on the slip access roads, although there are no firm proposals to pursue this consideration further.

Item 11

Liaison with the Highways Agency. The Council's Transportation Policy Section have a good and longstanding working relationship with the Air Quality Team and the Highways Agency. Closer liaison between the Highways Agency and the Air Quality Team is currently being developed further.

Item 12

Guidance for Planners and developers. A guidance document has been drafted, but needs to be developed further after deeper discussions with both the planners and the Highways Agency.

Item 19

Real time information of the Public Transport Network. There are a number of schemes that have been initiated and that will be developed further, these include VMS at a number of locations and text lines to give live bus time information.

Item 20.

Quality bus Corridors. The main arterial routes into the City have bus lanes and there are regular meetings between the Council and the bus operating companies to ensure that busses have as free a passage as is practically possible. The new transport interchange should help to continue to encourage a modal shift.

Item 23

High Occupancy Vehicle Lanes. Due to the existing road layouts and demand for space, it is felt that this is an impractical option to consider other than in the format of the existing bus lanes.

Item 24

Road user and workplace charging. This was dismissed as an option by all consulted. It was felt that it would be very difficult for it to be done unilaterally in Hull and would need Central Government backing for a national scheme. It was also felt that it could divert traffic onto less appropriate routes.

Item 25

20mph zones. This is already being comprehensively applied across minor roads on residential estates in the City, although it was felt inappropriate to extend the scheme to main routes.

Item 26

Traffic free areas. The City already has a reasonable amount of pedestrian only areas which will be extended to some degree with the new developments occurring in the City Centre. A balance needs to be struck with the need for access for deliveries and the disabled.

It was felt that a traffic free day in a specific area, possibly linked to national no car day or national cycling day, could be a useful awareness raising tactic.

Item 28

Non-residential parking levy. The problems associated with work place charging have been covered in item 24. Some residents of areas subject to periodic influx a visitors, such as around the KC Stadium and Hull Fair, receive a permit to park on the street for extended periods. Due to the resource implications to implement and Police such schemes, it was not felt practical to extend this scheme other than on a specific case by case basis.

Item 31.

Speed regulation. 20mph zones were covered in item 25. Transportation felt that as quite often the problem was developing road schemes that assisted traffic to flow nearer to the existing speed limit, reducing speed limits would be of negligible value.

Item 39.

Remove car allowances. Like any other measure with financial implications, thought would be needed to ensure that no undue hardship is created or service provisions affected. In addition it was also considered that a viable alternative would need to be offered. It was felt that on its own, this item was not one to pursue, but that it could be included as part of a green travel plan if it had support in the group that the plan was aimed at.

Item 42.

Promote LPG refuelling points. Whilst there is some national awareness of this, it was felt worthwhile to investigate further, with a view to encouraging local expansion and possibly including bio-diesel.

Item 44

Liaison with P&O ferries. This was initially mooted due to the ferry passengers embarking and disembarking at peak travel times. There are a number of reasons why this occurs, but it primarily relates to the times that best suit the customers. It also relates to the time taken to prepare the ferry ready for its next sailing. It has been suggested that the ferry company could be approached to see if there was any fare scheme that they could implement that would reward greener vehicles, or perhaps adding information on air quality to the booking and travel information, although care would have to be taken with the wording to prevent reducing the attractiveness of a visit to Hull.

The Highways Agency suggest discussions around the practicalities of NOT releasing HGV's to the road network during peak periods.

Conclusions for demand management.

Items dismissed

Car Parking, availability and cost. Whilst this is under regular review, it was felt best not to include it as a specific measure in the action plan as each situation will be assessed on its own merits in any event.

Night time deliveries. It was felt best not to include it as a specific measure in the action plan as each situation will be assessed on its own merits rather than as a general policy.

High occupancy vehicle lanes. Due to the existing road layouts and demand for space, it is felt that this is an impractical option to consider other than in the format of the existing bus lanes.

Road user and workplace charging. This was dismissed as an option by all consulted. It was felt that it would be very difficult for it to be done unilaterally in Hull and would need Central Government backing for a national scheme. It was also felt that it could divert traffic onto less appropriate routes.

20mph zones. This is already being comprehensively applied across minor roads on residential estates in the City, although it was felt inappropriate to extend the scheme to main routes.

Speed regulation. 20mph zones were covered in item 25. Transportation felt that as quite often the problem was developing road schemes that assisted traffic to flow nearer to the existing speed limit, reducing speed limits would be of negligible value.

Remove car allowances. It was felt that on its own, this item was not one to pursue, but that it could be included as part of a green travel plan if it had support in the group that the plan was aimed at.

Items to be pursued when resources allow.

Traffic free areas. It was felt that a traffic free day in a specific area, possibly linked to national no car day or national cycling day, could be a useful awareness raising tactic.

Non-residential parking levy. Residential parking permits are to be reviewed on a case by case basis.

Promote LPG refuelling points. Whilst there is some national awareness of this, it was felt worthwhile to investigate further, with a view to encouraging local expansion and possibly including bio-diesel.

Items to be pursued

Traffic Control Schemes. These are routinely reviewed, but further consideration will be given to alternative options, such as controlling the rate at which traffic enters the A63 via the slip roads. This is expected to have a medium to high overall impact on air quality, especially in the short term.

Liaison with the Highways Agency. Closer liaison between the Highways Agency and the Air Quality Team is currently being developed further. This is expected to have a low overall impact on air quality, especially in the short term.

Guidance for Planners and developers. A guidance document has been drafted, but needs to be developed further after deeper discussions with both the planners and the Highways Agency. This is expected to have a low overall impact on air quality, especially in the short term.

Real time information of the Public Transport Network. There are a number of schemes that have been initiated and that will be developed further, these include VMS at a number of locations and text lines to give live bus time information. This is expected to have a low overall impact on air quality, especially in the short term.

Quality bus corridors. The main arterial routes into the City have bus lanes and there are regular meetings between the Council and the bus operating companies to ensure that busses have as free a passage as is practically possible. The new transport interchange should help to continue to encourage a modal shift. This is expected to have a low to medium overall impact on air quality, especially in the short term.

Liaison with P&O ferries. The ferry company and dock operators are to be contacted with a view to discussing possible measures to reduce the impact of traffic from the port, especially at peak times. This is expected to have a low to medium overall impact on air quality, especially in the short term.

Chapter 5

Impact Assessment – benefits and disbenefits.

The Council has considered the costs and benefits of measures in the plan and has given a broad indication in terms of low, medium or high. It is not possible to provide a detailed cost –effectiveness analysis of every action in the plan although some attempt has been made to provide a qualitative estimate.

In terms of both cost and potential air quality improvement the Action Plan measures have been banded in to Low, Moderate and High categories.

The cost bandings are categorised by the expected cost of constructing or operating the proposed measure. Less than £50,000 is categorised as Low, measures expected to cost between £50,000 and £100,000 categorised as Moderate and measures costing in excess of £100,000 categorised as High.

Some measures will impact on each other to varying degrees, and some measures, especially in the awareness raising section, are of such a nature that the total potential air quality benefits are difficult to quantify. Also, the corresponding impact upon the level of congestion and vehicle driving patterns of individual measures is difficult to simulate.

The banding of Potential Air Quality Improvement has therefore been done in a subjective manner based on best estimates from experience and previously monitored schemes. These estimates were ascertained after a series of meetings and communications with the various expert bodies and members of the public. This consultation is outlined in Appendix Two.

Where practical, computerised modelling of each individual measure with ADMS-Urban will be backed up by the use of monitoring equipment to audit individual measures as they are implemented.

Many of the actions in the plan are already being implemented, or are already planned, for reasons other than air quality yet will have benefits in terms of improving air quality. Some of the actions are carried out because of a statutory duty. Such actions are drawn from existing Council strategies and plans and are therefore considered to be cost-effective in reducing air pollution.

Overall although no single measure listed will have a high impact in its own right it is considered that the measures proposed constitute a balanced and realistic approach and will contribute to meeting air quality objectives.

There still remains the major changes in the pipe line for the A63, but as previously mentioned in this report, as they are not definite and even if the proposals were given the go ahead they would not be implemented for some considerable time, they have not been included in this report. We will as a Department continue to offer our support for the proposals at every opportunity.

Table 12: Proposed measures ranked in order of impact

	OPTION	Grouping	Cost £	Cost ♂	Rank	Timescale
10	Traffic Control schemes	Demand Management	Low	low	1	Short/med
32	Idling vehicles legislation	Reduce Emissions	Med	low	2	Short
20	Quality Bus Corridors	Demand Management	High	med	3	Med
22	Park & Ride	Reduce Vehicles	High	low	4	Short/Med
3	Low Emission Buses	Reduce Emissions	High	Low	5	Med
37	Reducing pollution from Council vehicles/activities	Reduce Emissions	Med	Med	6	Med
2	Roadside Emission Testing	Reduce Emissions	Med	Med	7	Med- Long
35	Liason with Primary Care Trust for health/AQ statistics	Reduce Vehicles	Med	low	8	Short
41/15	Energy efficiency schemes	Reduce Emissions	Med	Low	9	Long
8	Cycling and walking schemes	Reduce vehicles	Low	Low	10	Long
38	Increase awareness	Awareness raising	Med	Low	11	Long
17	School curriculum	Awareness raising	Low	Low	12	Long
19	Real time information of public transport network	Demand management	Med	Low	13	Long
12	Planning Guidance for developers	Demand management	Low	Low	14	Long
11	Liaison with Highways Agency	Demand Management	Low	Low	15	Long
33	AQ objectives in annual performance reviews of staff/departments	Awareness raising	Low	Low	16	Long
34	AQ included in staff induction	Awareness raising	Low	Low	17	Long
13	IPPC	Reduce emissions	Low	Low	18	Long
14	SCA	Reduce emissions	Low	Low	19	Long

Chapter 6 Implementation and Monitoring

Some of the proposals in this plan are currently underway and will continue to be assessed for their costs and environmental and health benefits. Future proposals will also be similarly assessed and reviewed once they are implemented. Examples of the types of indicators that could be used to assess such actions are shown in the table below.

Indicator	Measure	Use
Traffic flow	Number of vehicles per time	Reduced flow = reduced air pollution, but traffic may be re-routed to another area
Journey time	Length of journey versus distance	Reduced journeys may result from reduced vehicle numbers and increased speed
Road density	Number of vehicles in a given area	Reduced density through reduced vehicles is likely to lower emissions. Useful for monitoring changes in town centres
Fleet mix	-Proportion of Euro classes/vehicle age -Proportion of fuel type -Proportion of vehicle type	Indicative of changes in total emissions from road vehicles and contribution to air pollution
Fuel sales	-Proportion of fuel types sold -Changes in amounts of fuel sold -Number of LPG stations	Reduced sales of fuel = fewer road vehicles = lower emissions
Road capacity	Amount of vehicles a road can hold compared to number of vehicles on the road	If road capacity is lower than actual traffic flow this is likely to result in congestion and higher pollution
Emission density	Emissions per given area	Indicate spatial variations and changes in pollution concentrations
Public Transport use	Numbers of people and revenue from bus, tubes, trains etc	Increased use of public transport may give some indication of reduced use of private vehicles
Industry density	Number of processes per given area	Lower density = lower emissions
Industry types / emissions	Emissions each year, meeting targets	Reduction or increase over time
Other environmental indicators	Related parameters e.g. noise levels	Indirect measure of improvements in air quality
Number of Green Travel Plans	Number of companies/schools with GTPs	Indicate a likely increase in use of public transport/reduced number of private cars used
Length of cycle/walking network	Changes in length of network	Increased cycle lanes /improved footpaths likely to result in higher use and reduction in other forms of transport

Table 13 shows how we propose to monitor the progress of each of the chosen options.

Table 13 Monitoring proposals

	OPTION	Measure	Target	Rank	Timescale
10	Traffic Control schemes	A combination of: Traffic flow; journey times and monitored air pollution levels.	Measured decrease in NO2 levels.	1	Short/med
32	Idling vehicles legislation	Number of drivers spoken to, number of vehicles switched off. Monitored air pollution levels	Measured decrease in NO2 levels. < in engines running	2	Short
20	Quality Bus Corridors	Traffic counts.Journey times and passenger uptake.	Increased bus usage	3	Med
22	Park & Ride	Traffic counts.Journey times and passenger uptake.	Increased bus usage	4	Short/Med
3	Low Emission Buses	Number purchased, monitored pollution levels.	Increased number of low emission buses	5	Med
37	Reducing pollution from Council vehicles/activities	Number purchased, monitored pollution levels.		6	Med
2	Roadside Emission Testing	Pass;fail ratio		7	Med- Long
35	Liason with Primary Care Trust for health/AQ statistics			8	Short
41/15	Energy efficiency schemes	Number of properties converted		9	long
8	Cycling and walking schemes	Cycling/pedestrian surveys and traffic counts.		10	Long
38	Increase awareness			11	long
17	School curriculum	Number of courses added		12	Long
19	Real time information of public transport network	On- going		13	Long
12	Planning Guidance for developers	On-going		14	Long
11	Liaison with Highways Agency	On going		15	Long
33	AQ objectives in annual performance reviews of staff/departments	On going		16	Long
34	AQ included in staff induction	On going		17	Long
13	IPPC	On going.		18	Long
14	SCA	On going.		19	long

Appendix One: All suggested options and comments

	OPTION	Grouping	Cost £	Social Cost	Pros	Cons	Timescale
1	Increase parking fees	Demand Management	Low	Moderate	Makes driving to town less attractive	Social Exclusion	Short
2	Roadside Emission Testing	Reduce Emissions	Med	Med	Increased awareness	Social Exclusion	Short
3	Low emission Busses	Reduce Emissions	High	Low	Improved AQ. Could be offset by less demand if > price	Could increase cost of Bus travel	Long
4	Low emission zones	Duplicate with item 27					
5	Low emission taxis	Reduce Emissions	High	med	Slight aq improvement. Could be offset by less demand if > price	Could increase taxi fares	Med/long
6	Low emission goods vehicles	Reduce Emissions	High	med	reduced emissions	difficult to enforce, some trade/delivery issues	Long
7	Night time deliveries	Demand Management	med	med/low	decreases peak hour traffic > less congestion > improved AQ. May assist in working hours directive. Less congestion>more deliveries.	Noise/staffing co-ordination issues. Traffic space released could be taken up by cars.	Med
8	Cycle and walking schemes	Reduce Vehicles	Low	low	>Health <congestion	accident prevention	Short
9	Green Travel Plans (including school staff and pupils)	Reduce Vehicles	low	low	> Health <congestion	implementing and sustaining	Short
10	Traffic Control schemes	Demand Management	low	low	Safer pedestrian/cycle movements. <congestion >AQ	difficult to implement. Knock on effect on other junctions	Short/med
11	Liaison with Highways Agency	Demand Management	low	low	Better opportunity to raise local AQ/traffic concerns	needs to be co-ordinated to prevent 'double talk'	Short
12	Planning Guidance for developers ?S106 agreements? Highways?	Demand Management	low	low	Raises awareness of AQ and issues	needs consistent approach. Other demands on planners	Short
13	IPPC	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Short
14	SCA	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Short

	OPTION	Grouping	Cost £	Social Cost	Pros	Cons	Timescale
15	Energy Efficiency	Reduce Emissions	low	low	Raises awareness of AQ and issues	difficult to enforce measures > than legal requirements	Med/long
16	Publish AQ data	Awareness Raising	med	low	Raises awareness of AQ and issues	needs consistent approach. Other demands on officers	Short
17	School curriculum	Awareness Raising	low	Low	Raises awareness of AQ and issues	needs consistent approach. Other demands on officers and teaching staff	Short
18	> use of rail for freight and people (KC Stadium)	Demand Management	High	low	decreases peak hour traffic > less congestion > improved AQ. May assist in working hours directive. Less congestion>more deliveries.	Co-ordination issues. Traffic space released could be taken up by cars.	Long
19	Real time information of Public Transport network	Demand Management	med	Low	Reduced uncertainty on travel for public. Bus runs can be staggered if 'bunching' occurs	needs to be co-ordinated, consistent and sustainable	Short
20	Quality Bus Corridors	Demand Management	High	med	More reliable and faster journey times. Public Transport more attractive	Can be public objection re road use/availability for cars. Enforcement needs to be consistent	Med
21	Zero pollution public transport	Reduce Emissions	High	low	Zero pollution at source	Depends on adopted technology, but could increase pollution in other areas.	Long
22	Park & Ride	Reduce Vehicles	High	low	Reduces vehicles travelling into City Centre	High capital and running costs. Little evidence of improvements in AQ	Short/Med
23	High Occupancy Vehicle Lanes	Demand Management	High	High	Reduced journey times.	Perception, anti car measure. Requires attractive alternative travel option.	Med
24	Road user and workplace charging.	Demand Management	High	High	Reduced peak hour traffic. Raises awareness.	Perception, anti car measure. Requires attractive alternative travel option. May cause 'circling' to find cheaper parking. Cost on trade.	Med

	OPTION	Grouping	Cost £	Social Cost	Pros	Cons	Timescale
25	20mph zones	Demand Management	Low	Med	Safety, community activity <noise	> travel times, potential increase in traffic elsewhere. Enforcement	Short/Med
26	Traffic free areas	Demand Management	Med	Med	Safety, community activity <noise	> travel times, potential increase in traffic elsewhere. Enforcement	Med
27	Low emission zones	Reduce Vehicles	High	Med	Safety, community activity <noise	Prejudices older cars. Enforcement, trade decline	Med/Long
28	Non-residential parking levy	Demand Management	Low	Med	Safety, community activity	Enforcement. Anti car perception.	Short/Med
29	Car Pool Scheme	Reduce Vehicles	Low	low	> Congestion >social Interaction	Co-ordination	Med/Long
30	Car Scrappage Schemes	Reduce Vehicles	High	High	Newer vehicle fleet <emissions	Old cars scrapped anyway	Med/long
31	Speed Regulation	Demand Management	low	med	>safety	> Congestion elsewhere	Med
32	Idling vehicles legislation	Reduce Emissions	med	low	Saves fuel >awareness <Pollution	Perception - anti car measure. Workload/man power	Short
33	AQ objectives included in Annual Performance Reviews of Staff/Departments	Awareness Raising	low	low	>awareness <pollution <fuel costs.	Perception and workload	Medium
34	AQ included in staff induction	Awareness Raising	low	low	>awareness <pollution <fuel costs.	None?	Medium
35	Liason with Primary Care Trust for health/AQ statistics	Reduce Vehicles	med	low	>targeting of issues. >opportunity to get feed back from at risk groups.	Workolad, Data Protection	Short
36	Tree planting/green field policy	Reduce Emissions	med	med	>awareness >environment	Workload	Med
37	Reducing pollution from Council vehicles/activities	Reduce Emissions	med	med	<pollution objectives usually lead to < costs due to >efficiency	Avoid duplicity	Med
38	Increase awareness	Awareness Raising	med	low	web site and campaigns could lead to >awareness of other issues.	workload and consistency of approach. Some duplicity issues.	Short

	OPTION	Grouping	Cost £	Social Cost	Pros	Cons	Timescale
39	Review car allowances	Demand Management	low	low	>reward for less polluting vehicles	Staff perception anti car, <income.	Medium
40	Incentive schemes for car share, travel passes, cycling allowances. Staff bikes	Reduce Vehicles	med	low	>parking spaces (conflict with parking charge scheme?) Lead by example >use public transport	Staff perception anti car, <income.	Medium
41	Energy efficiency schemes	Reduce Emissions	med	low	<pollution objectives usually lead to < costs due to >efficiency	Avoid duplicity	Short
42	Promote LPG refueling points	Demand Management	med	low	Improve air quality, >awareness	Cost, requires central funding. LPG low polluting no clean.	Medium
43	Links with research groups.	Awareness Raising	med	low	raise awareness, promote debate and reserach	very long term, possibly no solution.	Short
44	Liaison with P & O re ferries	Demand Management	low	low	traffic from ferries, often not used to left hand of road, NOT entering rush hour traffic. Also, low pollution fuels on ferry and rolling stock.	Limited by tide times/turn around time.	Short
45	Investigate Sussex example for issuing text alerts on days of poor air quality	Awareness Raising	Med	Low	Reduced potential for medication or hospitalisation.	resources	Short/med

Option.

Comments received during consultation

1. There is limited control over this option as not all car parks are Council owned. It can also create a problem when, having dropped someone off, vehicles could cruise around rather than paying for a short stay space. It could also add to the queuing problems on the A63 for vehicles trying to access Princes Quay car park. There could also be a perception of social exclusion.

[Comment from HA. Possible switch from long stay to short stay parking?](#)

[Comment from Transportation: Balance Nos vs Charge](#)

- Cost can be high if numbers drop too much
- Implements formula parking charges vs bus/P&R charges
- Regular reviews on going

2. This is a possible measure to adopt as it's useful for raising awareness but it will have limited impact on levels within the AQMA.

[Comment from Transportation:](#)

- Can increase congestion if stopping vehicles in inappropriate locations.
- Have we got the power to stop vehicles? Require Police Assistance.

3. This would have financial implications that are liable to be passed on to the customer, therefore making it a less attractive option. It could also be seen as socially divisive and possibly push up the cost of bus travel.

[Comment from Transportation: already on going.](#)

[Comment from HA. This links to option 9, 19, 21 and 22.](#)

4. (Duplicate with 27) Expensive to implement and there could be some issues with trade associations and politicians. There could also be a perception of social exclusion. It could also create issues around deliveries. It could be seen as restrictive on trade. There could be problems in enforcement and limited Air Quality benefits.

[Comment from HA. Links to options 30, 5 & 6. May be problems with through traffic.](#)

[Comment from Transportation: What exactly does this mean?](#)

[Would there be enforcement issues?](#)

[Could it have a negative economic effect?](#)

5. Conversions can reduce boot space on taxis to below the legal standard. Cost could be prohibitive. Could be counter productive if cost of installation results in an increase in taxi fares.

[Comment from HA. Links to options 4 and 6.](#)

6. This could only realistically be achieved by either national measures or by encouraging larger operators to convert using some form of inducement. It could be difficult to enforce and there could be issues relating to restrictions on trade.

[Comment from HA. Links to 4 & 5.](#)

7. Possibly only achievable for specific situations and controlled by planning. Potential noise issues. Potential staffing issues.

Comment from HA. This and option 18 need thoughts about demand management to suppress demand in cars where not desirable.
8. This is to be pursued by us in conjunction with other “soft” measures and could have accident reduction benefits.
9. This is to be pursued by us in conjunction with other “soft” measures. There could be issues implementing and sustaining this measure.

Comment from HA. Is hard to get at existing users. It’s okay for new users, so it may not be as effective as thought.
10. Could be possible on a site by site basis. For example some measures are being considered or applied on Myton Gate.

Comment from HA. This needs to link to the UTC system to get the greatest benefit from controlling the network as a whole rather than on a piecemeal basis.
Comment from Transportation: this will occur to compliment the junction changes that are proposed for Market Place and the Myton Bridge area.
11. Done. (Meeting 04/05/2006 and early June)
Comment from Transportation: Being done.
12. Started but to be completed.

Comment from HA. Needs to be a consistent approach from Hull CC and HA.
13. On going
14. On going
15. (Duplicate with 41) Being done by the Authority, but we need to develop links and get more information.
16. Dependant on Air Quality Grant Bid.
17. This is to be pursued by us in conjunction with other “soft” measures.
18. This is problematic with huge costs. There’s also little we as an Authority can do to influence it.

Comment from HA. This and option 7 need thoughts about demand management to suppress demand in cars where not desirable.

- Comment from Transportation: - Network Rail, Rail Operating Companies, Yorkshire Forward and ABP – Proposals being progressed
 - More freight transported by rail therefore frees up capacity on road to improve accessibility by freight on road
 - Passenger use – Stadium/HRI halt would not reduce flows on Castle Street
 - Only cater for predicted growth not reduce existing
19. Done to some extent.
- Comment from HA. Perhaps something similar for other road users such as VMS's etc?
 Comment from Transportation: Being progressed – certain areas currently have real time operating.
20. Done to some extent.
21. Could be expensive and costs are liable to be transferred to customers which could limit the benefits. Perhaps some form of incentive scheme could be developed?
 Comment from HA. This links to option 3, 9, 19 and 22.
 Comment from Transportation: Need dedicated system – lack of physical space for routes
22. Done and further sites being considered.
- Comment from HA. This links to option 3, 9, 19 and 21. It also needs to be linked to demand management to suppress demand.
23. It's doubtful that this is feasible in Hull.
- Comment from HA. There is little scope for this due to the huge demand for space currently, but it could be considered perhaps as part of a combined HOV/HGV lane.
 Comment from Transportation: - Cost med not high.
 - Many journeys slower?
 Not enough lanes and difficult to enforce.
24. This would have to be applied to all sites (including us) and could be seen as a restriction on inward investment or a further tax or social exclusion.
- Comment from HA. This may have to wait for national proposals and it would be very difficult for Hull to go it alone.
 Comment from Transportation: Politically unacceptable
 - Economy too fragile – would have to be part of a regional or national scheme
 People divert to inappropriate routes
25. All ready done. Do we have more than any other City?
 Comment from Transportation: Ongoing – However inappropriate for main routes

26. Possible, or maybe traffic free days as a scheme. Maybe link to national no car or national cycling day.

27. (Duplicate with 4)

28. Some already exist. It could be worth considering other areas, although this can be seen as an anti-car measure. It also needs the cooperation of the enforcement bodies although recent changes should mean that this isn't a problem.

Comment from HA. This is the same as part of 24, although it has different words.

Comment from Transportation: Workplace parking charges

- Have we got powers to enforce
- Will economy stand it

29. The existing scheme is little used. Perhaps it's worth looking at why it's not used more?

30. This is probably not a good one. It's expensive and may be counter productive in the overall environmental stakes as vehicle life is reduced and it may also have a perception of social exclusion. Some vehicles are currently scrapped by the Police on occasions for vehicles without tax.

Comment from HA. This is often done as part of Option 4.

Comment from Transportation: What is this? Social Exclusion?

31. Needs to be precisely targeted.

Comment from Transportation: Need to get speeds to optimum engine efficiency level not restrict further. This is to be examined further as speed limits are to be reviewed from a road safety perspective.

32. To be done.

Comment from HA. This is difficult to Police and enforce.

Comment from Transportation: Have we got the powers to enforce?

33. This needs more thought.

34. This is one to progress.

Comment from HA. This could perhaps be widened to talks to all staff as part of a rolling programme of information dissemination.

35. This is already taking place, but needs to be developed further.

36. This is done already to some extent.

Comment from Transportation: Are there significant opportunities in the City Centre?

37. This is already a consideration with fleet management.
 Comment from Transportation: Ongoing.
38. To be done in house.
39. Need to lead by example if we're going to pursue this one.
 Comment from Transportation:
 Social Exclusion?
 May need financial input
 Remove staff subsidies
 Provide financial incentive for use of 'green travel'
 Restrict to use of particular car parks north of city centre
 Comment from HA. This and option 40 should be part of a good Green Travel Plan.
40. This one needs more thought.
 Comment from HA. This and option 40 should be part of a good Green Travel Plan.
 Comment from Transportation:
 May need financial input
 Remove staff subsidies
 Provide financial incentive for use of 'green travel'
 Restrict to use of particular car parks north of city centre
41. (Duplicate with 15)
42. There is some form of national awareness for this, but it could be possible to expand this locally and possibly include bio-diesel.
43. This is liable to have limited success, but could be worth pursuing from an awareness and profile raising perspective.
44. This could have limited success due to the established nature of the ferry times and the shift patterns for turn round times. Perhaps the ferry company would consider a reduction in price for less polluting vehicles, although it is felt that they'd need an incentive to do so.
 Comment from HA. What about liaison with the port regarding release of HGV's to the network during peak periods?
 Comment from Transportation:
 Not limited by tide – travel times at most desirable to customers.
- Post consultation suggestions.**
45. Text alerts.
 Sussex scheme to be reviewed to determine practicalities of implementing in Hull area.

- 45 **No Car Lanes:**
Not deemed viable due to limited road space.
- 46 **Ramp Access Control.**
Transportation group feel that further work could be carried out into the feasibility of this as an option for controlling access to the A63 but that it will be after other options have been trialled.
- 47 **Footbridges over Castle Street.**
Some are to be built although there are some road safety issues as pedestrians seem to still opt to cross the main road directly.
- 48 **VMS. Car Park Guidance.**
Transportation group to consider expansion of existing VMS system and the addition of parking information.
- 49 **VMS Signing of delays on Trunk Road – Alternative Routes.**
HA feel cost of VMS boards could be restrictive on this option.
- 50 **Extension of incident monitoring/Breakdown clearing ‘minute-man’ scheme,**
To be investigated further by HA/Transportation group.
- 51 **Encouraging 24hour Hull. To be investigated further with Development Control and Planning.**

Appendix Two:

Extent of Consultation.

Air Quality Management Area (A63 Castle Street)

Current Position

1. Consultation

- 1.1. Response to date from general public consultation has generally been slow. However, a number of comments have been received which have allowed, to date, 45 possible measures that can be considered for inclusion and prioritisation in the AQMA Action Plan. Consultation has included:
 - consultation in writing with 22 local stakeholders;
 - a letter drop of approximately 7000 information leaflets in the area;
 - a presentation to Neighbourhood Wardens (October, 2004);
 - a drop in centre at the Goodwin Centre (November, 2004);
 - presentations to Thornton & City Centre Neighbourhood Forums;
 - consultation forums at the Guildhall (Nov, 2004 & July, 2005);
 - meetings with transportation groups, including HA to discuss Bridge closure and any changes that could be advantageous to keep.
 - air quality presentation at the Hull Business Centre (February, 2006);
 - press releases;
 - interviews on Radio Humberside and Look North;
 - discussion/correspondence with members of the public; and
 - consultation through the planning process.
 - The Lord Mayors Parade (11/06/05)
 - Hull Show (10/09/05 and 04/10/04)
- 1.2. Consultation with minority groups is on going.
- 1.3. Consultation with Highways Agency is on going.
- 1.4. The consultation exercise for the initial phase of the Action plan is now closed, although any further developments or suggestions will be taken on board and added where practical.
- 1.5. Various schemes for schools under consideration including walking busses and educational packages to compliment the national curriculum.
- 1.6. To facilitate access to monitoring data and other information about Local Air Quality Management, funding has been obtained from Defra for specialist software to give public access to the information via the world wide web. www.air-quality.net
- 1.7. Funding has also been sought to expand the role of the Councils Health Education Unit to provide a variety of presentations and packages designed to raise the profile and awareness of Air Quality Issues.
- 1.8. The Authority has produced a number of reports on Air Quality in Hull. The reports have all been subject to peer review by any interested parties and experts appointed by the Government who have sent written responses on each occasion. The declaration was called in by the Councils Scrutiny Committee prior to full Cabinet approval.
- 1.9. The Authority has meetings with the Local Hospital Trust to determine ways in which resources can be pooled to achieve the most effective communication with staff, patients etc.

2. Assessment of Air Quality in Kingston upon Hull

- 2.1. A further 'Update / Screening Report' is currently being undertaken to identify those matters that have changed since the first round of 'Review and Assessments' was completed in 2000. This latest review will also take into account the previous 'Update and Screening Report' carried out in May 2003.

3. Weaknesses with the System

- 3.1 Despite the Departments efforts to use a variety of techniques, Interest in the Local Air Quality Management Regime seems to be limited to those with an existing interest in the Environment.
- 3.2 There are limited powers to force operators and agencies to come on board with the Local Air Quality Management Regime.
- 3.3 Some of the issues are only controllable via national measures.

4. Partners, Customers and Third Parties.

Partners.

- 4.1 The Local Air Quality Management Regime is effectively carried out on behalf of DEFRA. As the major source of pollution is traffic related, the Councils Traffic Engineers and the Highways Agency play a primary role. In order to reach as many different people as possible and to enable the process to be visibly free from political influences, the City of Hull Environment Forum has facilitated training days and seminars.

Customers.

- 4.2 The work is carried out for the benefit of the people of Hull and visitors to the City.

Third Parties

- 4.3 The consultation is open to all interested parties, so the list those with an interest is not exhaustive and includes pressure groups such as Friends of the Earth and Greenpeace.

APPENDIX 3 – COST BENEFIT TABLE FROM L.T.P.

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Delivery Issues	D1	Enforcement of parking restrictions	LOW	HIGH	Improved enforcement of parking restrictions, particularly around entrance to Prospect Centre and on Mill Street	Local Authority Police	1 year
	D2	Examine the feasibility of creating a consolidation centre to serve city centre retailers	LOW	MEDIUM	Report with review of consolidation centre in Bristol and usefulness to Hull	Local Authority Bristol Council	2 years
	D3	Consider supporting promotion of 24/7 delivery by Princes Quay Shopping Centre	LOW	MEDIUM	Meeting with managers of Prospect Centre and Princes Quay to offer support and assistance	Local Authority Prospect Centre Princes Quay	1 year
	D4	Examine the usefulness of a no car lane for the city centre	LOW	MEDIUM	Report examining no car lanes in other UK cities and their applicability to Hull	Local Authority City centre businesses	2 years
Partnership	PA1	Consider how to take forward interest expressed by operators/businesses in becoming involved in a partnership arrangement	LOW	MEDIUM	Improve communication and mutual understanding of needs. Increase opportunities for change	Operators/businesses Local Authority	1 year
Lorry Parking	P1	Improved information on facilities for users of Priory Park	LOW	HIGH	Flyer for incoming drivers	Local Authority Sainsbury's Norland Pub	3 months
	P2	Improving signing to Priory Park	LOW	MEDIUM	Additional signs on the A63 in both directions	Local Authority Highways Agency	6 months
	P3	Lorry Parking information to be provided at message boards at 3 sites described in R2	MEDIUM	MEDIUM	3 Information boards at 3 key locations (see R5)	Highways Agency Lorry Parking Owners Local Authority	2 years
	P4	Improved provision of services for users of Priory Park	LOW	HIGH	Extension to opening hours of nearby food outlets	Local Authority Sainsbury's Norland Pub	6 months
	P5	Development of an additional lorry park on the east side of Hull	MEDIUM	HIGH	Private or public lorry park at Littlefair Road, opposite King George Port	Local Authority Highways Agency Adjacent businesses and transport operators	3 years
	P6	Monitoring of authorised parking on east side of Hull for potential social and environmental issues	LOW	MEDIUM	6 monthly reviews of unauthorised parking	Local Authority	Ongoing
Accident Issues	A1	Reduce number of lanes on roundabout on Southcoates Lane and Hedon Road from 3 to 2	MEDIUM	MEDIUM	Redesigned lanes on roundabout	Local Authority Highways Agency	1 years
	A2	Examine potential blackspots identified by the HGV accident review	LOW	MEDIUM	Road Safety report	Local Authority	2 years
	A3	Training on dangers of accidents between HGV and cyclists	LOW	MEDIUM	4 Primary schools	Education Authority Police	1 year

APPENDIX 3 – COST BENEFIT TABLE FROM L.T.P.

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Rail	M1	24 Hour Access, Capacity and Gauge Enhancement on Rail Network	HIGH	HIGH	Agreement enhancement scheme	Network Rail Local Authority Yorkshire Forward ABP	2 years
	M2	Open access Intermodal Terminal for the City	HIGH	MEDIUM	Planning permission agreed for open access terminal	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M3	Lobby to Secure Adequate Funding Support for Multi-modal projects	MEDIUM	HIGH	Fully funded projects	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M4	Diversionary Routes	MEDIUM	MEDIUM	Agreed contingency plans	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M5	Rail Disruption and Safety relating to other modes	HIGH	MEDIUM	Improvements where necessary	Local Authority Network Rail	On-going
Other Multi Mode	M6	Encouraging Pipeline Development in the future	LOW	MEDIUM	Planning permission approved	Local Authority	5 years
	M7	Promote Water Freight within the Humber and on Inland Waterways by Safeguarding Important Sites	MEDIUM	MEDIUM	Report produced on status of existing wharfs	Local Authority ABP British Waterways	3 years
Ports	M8	Support the Growth in the Port of Hull	LOW	HIGH	Continuing dialogue with port operator and Humber Trade Zone	Local Authority ABP Humber Trade Zone	On-going
	M9	Promoting Improved Multimodal Access to the Port	MEDIUM	HIGH	Programme of work	Local Authority Network Rail Yorkshire Forward Highways Agency	5 years
Contingency Planning	M10	Good Contingency Planning	LOW	MEDIUM	Contingency Plan	Local Authority Network Rail Yorkshire Forward ABP Terminal Operator Highways Agency	3 years
Education	E1	General education with HTZ and Chamber of Commerce	LOW	MEDIUM	Greater public awareness	Local Authority Humber Trade Zone Hull and Humber Chamber of Commerce	On-going

APPENDIX 3 – COST BENEFIT TABLE FROM L.T.P.

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Education - continued	E2	Work with University and Army School of Transport for driver and logistics training	LOW	LOW	Better publicity of training options	Hull University Local Authority Army Training School Skills for Logistics	On-going
	E3	Continue best practice in Council fleet operation	LOW	MEDIUM	Continuing best practice in own fleet	Local Authority Local Government Association Vehicle Manufacturers	On-going
	E4	Model exhaust emissions from actual HGVs using the A63	LOW	MEDIUM	Completion of emissions model	Local Authority	1 year
	E5	Wider transport measures to curtail growth in car use	MEDIUM	HIGH	Wider transport measures taken through LTP	Local Authority	On-going

APPENDIX 4 – COST BENEFIT TABLE FROM THE HULL FREIGHT STRATEGY

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Strategic Routing	R1	Information boards to be erected at 3 key locations for drivers to stop and check their route.	LOW	HIGH	Information boards on A1079, ABP ferry terminal and between Humber Bridge and Hull (A63)	Highways Agency Lorry Parking Owners Local Authority	2 years
	R2	Ensure mapping companies have correct O/S data on location of road hazards	LOW	LOW	Meeting with Ordnance Survey and report for mapping companies showing location of hazards.	Vehicle manufacturers Ordnance Survey Freight Industry	6 months
Signing	S1	Review signing for lorry routes and delete lorry symbols when signs replaced	LOW	MEDIUM	Removal of lorry squares/circles that are on some parts of the network but not others	Highways Agency Local Authority	3 years
	S2	Improved signage to National Avenue industrial estate	LOW	HIGH	Increased level of signage on main routes used to access estate	Local Authority Freight Operators Highways Agency	2 year Programme
	S3	Develop freight specific legends as part of VMS implementation	MEDIUM	MEDIUM	Messages on bridge openings and available spaces at Priory Park	Local Authority Hull Bridge FQP	3 years
Highway Infrastructure Issues	H1	Review phasing of lights and location of pedestrian crossings on Castle St.	MEDIUM	MEDIUM	Modified signal phasing	Local Authority Highways Agency	1 year
	H2	Establish a bridge FQP group to reduce openings during peak hour	LOW	HIGH	Develop strategy with topic specific FQP group	Local Authority Freight Operators Waterway Authority	1 year
	H3	Review intersection of National Avenue and County Road North for potential improvements	MEDIUM	MEDIUM	Report on measures to ease congestion and review of safety	Local Authority Business on National Avenue	2 years
	H4	Development of an Information facility between Humber Bridge and Priory Park	HIGH	HIGH	Lay-by on western approach with information boards	Local Authority Highways Agency	3 years
	H5	Develop pedestrian footbridge over Castle Street	HIGH	HIGH	Pedestrian bridge	Local Authority Highways Agency Local Businesses	2 years
	H6	Examine feasibility of removing traffic signals at intersection of Garrison Road and Castle Street	LOW	MEDIUM	Feasibility report	Local Authority Highways Agency Local Businesses	2 years
	H7	'Cut and cover' Tunnel for the Castle Street section of the A63 to cope with forecasted traffic growth	HIGH	HIGH	Develop strategy to move development forward in the long term	Local Authority Highways Agency Chamber of Commerce	10 years
	H8	Improve bus services and examine need for additional Park and Ride services	HIGH	HIGH	Increased use in Public Transport	Local Authority Highways Agency Chamber of Commerce	5 years

APPENDIX 4 – COST BENEFIT TABLE FROM THE HULL FREIGHT STRATEGY

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Delivery Issues	D1	Enforcement of parking restrictions	LOW	HIGH	Improved enforcement of parking restrictions, particularly around entrance to Prospect Centre and on Mill Street	Local Authority Police	1 year
	D2	Examine the feasibility of creating a consolidation centre to serve city centre retailers	LOW	MEDIUM	Report with review of consolidation centre in Bristol and usefulness to Hull	Local Authority Bristol Council	2 years
	D3	Consider supporting promotion of 24/7 delivery by Princes Quay Shopping Centre	LOW	MEDIUM	Meeting with managers of Prospect Centre and Princes Quay to offer support and assistance	Local Authority Prospect Centre Princes Quay	1 year
	D4	Examine the usefulness of a no car lane for the city centre	LOW	MEDIUM	Report examining no car lanes in other UK cities and their applicability to Hull	Local Authority City centre businesses	2 years
Partnership	PA1	Consider how to take forward interest expressed by operators/businesses in becoming involved in a partnership arrangement	LOW	MEDIUM	Improve communication and mutual understanding of needs. Increase opportunities for change	Operators/businesses Local Authority	1 year
Lorry Parking	P1	Improved information on facilities for users of Priory Park	LOW	HIGH	Flyer for incoming drivers	Local Authority Sainsbury's Norland Pub	3 months
	P2	Improving signing to Priory Park	LOW	MEDIUM	Additional signs on the A63 in both directions	Local Authority Highways Agency	6 months
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	P4	Improved provision of services for users of Priory Park	LOW	HIGH	Extension to opening hours of nearby food outlets	Local Authority Sainsbury's Norland Pub	6 months
	P5	Development of an additional lorry park on the east side of Hull	MEDIUM	HIGH	Private or public lorry park at Littlefair Road, opposite King George Port	Local Authority Highways Agency Adjacent businesses and transport operators	3 years
	P6	Monitoring of authorised parking on east side of Hull for potential social and environmental issues	LOW	MEDIUM	6 monthly reviews of unauthorised parking	Local Authority	Ongoing
Accident Issues	A1	Reduce number of lanes on roundabout on Southcoates Lane and Hedon Road from 3 to 2	MEDIUM	MEDIUM	Redesigned lanes on roundabout	Local Authority Highways Agency	1 years
	A2	Examine potential blackspots identified by the HGV accident review	LOW	MEDIUM	Road Safety report	Local Authority	2 years
	A3	Training on dangers of accidents between HGV and cyclists	LOW	MEDIUM	4 Primary schools	Education Authority Police	1 year

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	M2	Open access Intermodal Terminal for the City	HIGH	MEDIUM	Planning permission agreed for open access terminal	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M3	Lobby to Secure Adequate Funding Support for Multi-modal projects	MEDIUM	HIGH	Fully funded projects	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M4	Diversionary Routes	MEDIUM	MEDIUM	Agreed contingency plans	Network Rail Local Authority Yorkshire Forward ABP Terminal Operator	3 years
	M5	Rail Disruption and Safety relating to other modes	HIGH	MEDIUM	Improvements where necessary	Local Authority Network Rail	On-going
Other Multi Mode	M6	Encouraging Pipeline Development in the future	LOW	MEDIUM	Planning permission approved	Local Authority	5 years
	M7	Promote Water Freight within the Humber and on Inland Waterways by Safeguarding Important Sites	MEDIUM	MEDIUM	Report produced on status of existing wharfs	Local Authority ABP British Waterways	3 years
Ports	M8	Support the Growth in the Port of Hull	LOW	HIGH	Continuing dialogue with port operator and Humber Trade Zone	Local Authority ABP Humber Trade Zone	On-going
	M9	Promoting Improved Multimodal Access to the Port	MEDIUM	HIGH	Programme of work	Local Authority Network Rail Yorkshire Forward Highways Agency	5 years
Contingency Planning	M10	Good Contingency Planning	LOW	MEDIUM	Contingency Plan	Local Authority Network Rail Yorkshire Forward ABP Terminal Operator Highways Agency	3 years
Education	E1	General education with HTZ and Chamber of Commerce	LOW	MEDIUM	Greater public awareness	Local Authority Humber Trade Zone Hull and Humber Chamber of Commerce	On-going

APPENDIX 4 – COST BENEFIT TABLE FROM THE HULL FREIGHT STRATEGY

Issue	Code	Details	Cost	Benefit	Target Output	Partners	Timescale
Education - continued	E2	Work with University and Army School of Transport for driver and logistics training	LOW	LOW	Better publicity of training options	Hull University Local Authority Army Training School Skills for Logistics	On-going
	E3	Continue best practice in Council fleet operation	LOW	MEDIUM	Continuing best practice in own fleet	Local Authority Local Government Association Vehicle Manufacturers	On-going
	E4	Model exhaust emissions from actual HGVs using the A63	LOW	MEDIUM	Completion of emissions model	Local Authority	1 year
	E5	Wider transport measures to curtail growth in car use	MEDIUM	HIGH	Wider transport measures taken through LTP	Local Authority	On-going

Appendix Five

DEFRA planning requirements compliance checklist.

This section has been introduced to indicate where the work expected by DEFRA has been undertaken in relation to our action plan.

Work Area	Included or considered?	Location within the report and comments
Process - Adherence to Guidelines and Consideration of Policies		
Have Statutory Consultees been consulted?	Yes	Throughout and Appendix Two.
Have other LA departments been consulted?	Yes	Throughout.
Statement of problem causing AQMA?	Yes	Chapter Two
Principle sources identified?	Yes	Chapter Two
Other LA plans/policies considered?	Yes	Chapter Three
Options timescale included?	Yes	Chapter Six
Cost of options plan set out?	Yes	Chapter Five
Impacts assessed?	Yes	Chapter Four
Process – Checklist of measures.		
Have options been considered?	Yes	Chapter Four and throughout.
How many options considered?	51	Appendix One and throughout
Transport impacts assessed?	Yes	Throughout
Air quality impacts modelled or measured?	Monitored	Modelling occurs in respect to proposed developments.
Other Socio-economic impacts assessed?	Yes	Throughout
Other Environmental Impacts assessed? (noise)	Yes	Throughout
Have costs been considered?	Yes	Throughout and Chapter Five
Appropriateness and proportionality.		
Do measures seem appropriate to the problem?	Yes	Throughout
Have the measures been assessed?	Yes	Throughout
Are the measures likely to achieve the stated goal?	Probably	Conclusion in Executive Summary
Have the wider impacts been appraised appropriately?	Yes	Throughout
Was the method of assessing costs appropriate?	Yes	As outlined in guidance
Is it likely for LAQM objectives to be met?	Probably	Conclusions in Executive summary
Do the chosen measures comply with wider government policies?	Yes	Support and comply with wider policies.
Implementation		
Are measures realistic in light of the objective deadlines?	Yes	Each objective has a target. Chapter Six
Have responsibilities been assigned to the relevant parties?	Yes	Throughout
Does the assigned party have the necessary powers?	As far as is practicable.	Highways Agency is supportive of our case.
Has financing been secured and who will pay?	As far as is practicable.	Highways Agency investigating alternative revenue streams.

Appendix Six: Consultation Responses

In respect of the comments raised by DEFRA, the following additional information is provided.

DEFRA comment: The plan would benefit from inclusion of the policy context with respect to the Highways Agency as the A 63 (T) route manager e.g. with consideration to the relevant Route Management Strategy and Multi modal Study.

Response: The Hull East-West Corridor Multi-Modal Study and subsequent targeted programmes of improvements (TPI) are mentioned in the Freight Strategy and Local Transport Plan which are referenced in this Action Plan. A series of meetings are in progress aimed at discussing the scheme options to be assessed and agreeing the study area for the assessment of air quality given the scheme's locality within the City Councils air quality management area.

The A63 Castle Street Improvement Scheme currently has three options to be appraised for TPI entry in September 2007. The options are:

1. Base Scheme. Grade separation of Mytongate.
2. Land Bridge.
3. Cut and Cover Tunnel.

All three options are to be modelled and cost benefits assessed as part of the TPI bid. One complication is that other works from the original the Hull East-West Corridor Multi-Modal study (HUMMS) study, such as major improvements to the A1033 Hedon Road and alterations to junctions and traffic light priorities at Market Place have already taken place therefore the benefits of these could not be attributed to the proposed scheme; as such this would affect the overall schemes Benefit to Cost Ratio.

DEFRA Comment: The plan would benefit from inclusion of a measure which reflects the Councils commitment to liaising with the Highways Agency on proposed measures for the A 63 (T) and support for the cut and cover scheme.

Response: The Transportation Group within Hull City Council has regular and direct contact with the relevant people in the Highways Agency, in turn, the Transport Department also work very closely with the air quality group and keep them informed of all relevant information and meetings. All three groups are committed and obligated to not only continuing but building upon the existing and already very good lines of communication, in particular with regard to the proposed TPI measures. Air Quality Officers from the Council are in direct contact with consultants working on behalf of the Highways Agency for major infrastructure projects in Hull. A free exchange of information, ideas and data is being actively carried out.

DEFRA Comment: **Responsibilities for progressing measures are not clearly assigned.**

Response: They've have now been shown explicitly in table A 6.1 at the end of this Appendix.

DEFRA Comment: **Some measures considered have been categorised as “to be pursued as resources allow”. As these have not been dismissed as unfeasible, it is not clear why they have not been included in the list of draft Plan measures, with longer timescales provided and the need for additional funding highlighted.**

Response: The aim is to produce an Action Plan containing measures that are realistic and achievable. Whilst the measures in the category mentioned would be welcome additions to the plan, it was felt that the current financial limitations faced by the Council would place these measures lower down a list of priorities than some other issues it currently faces. They were not dismissed in total as clearly situations; including revenue streams for certain projects can change. Perhaps the measures could have been better categorised as “in abeyance”.

DEFRA Comment: **Quantification of the air quality impacts or consideration to specific timescales is not reported within the document.**

Response: As mentioned in the Plan, as some measures will impact on others and the uptake of other measures can only be an informed estimate, precise figures are not available for all of the measures. As far as is practical an assessment of measures has been shown explicitly in the table at the end of this Appendix.

DEFRA Comment: **The status for funding individual measures is not set out in a transparent manner.**

Response: Many of the measures are being implemented for reasons additional to the Air Quality benefits, so the funding stream from this perspective is minimal; this has now been clarified in the table at the end of this Appendix.

DEFRA Comment: **Whilst a thorough consultation has been carried out, details of the current consultation exercise and how these have influenced the development of the Plan need to be included.**

Response: point accepted. The consultations up to this draft document are detailed in Appendix two. During these consultations, we endeavoured to include community leaders and minority groups.

Since then, we consulted further with the council's equalities officers and it was decided to carry out further consultation with the main targets being BME groups due to the residential area within the AQMA having a higher proportion of BME residents compared to similar residential areas within Hull.

At the advice of the equalities officers and in collaboration with community leaders, a venue, dates, interpreters, food and presentation techniques were decided upon. This was publicized in the appropriate languages and locations frequented by the target groups.

The event did not raise any adverse comments to the proposals in the Action Plan.

It is very difficult to make clear-cut statements about predicted improvements to air quality or the percentage of people positively affected through actions taken in the Air Quality Action Plan. One of the main reasons for this is that in the majority of cases, capacity, resources and responsibility for each of the actions lie with more than just one partner or stakeholder.

In addition, several of the actions, for example, Liaison with Primary Care Trust for health/AQ statistics (Action number 35) represent only the first step in a much longer process of improvement and as such may have no immediate direct impact on people or on air quality.

Table A6.1 Responsibility for Actions.

	OPTION	Grouping	Air Quality Improvement	Responsibility to implement	Funding Source
1	Increase parking fees	Demand Management			
2	Roadside Emission Testing	Reduce Emissions	Low impact on NO2	Environmental Protection in partnership with VOSA.	Due to the close working relationship with VOSA, there is no additional cost for this as we are able to utilise VOSA's monitoring programme.
3	Low emission Buses	Reduce Emissions	Medium impact on NO2 in the AQMA due to low number of buses.	Kingston upon Hull City Council Passenger Transport Services.	Bus Companies.
5	Low emission taxis	Reduce Emissions			
6	Low emission goods vehicles	Reduce Emissions			
7	Night time deliveries	Demand Management			
8	Cycle and walking schemes	Reduce Vehicles	High impact on NO2 levels.	Kingston upon Hull City Council. Environmental Health, transport planners and road safety officers. LA 21 Officers.	DEFRA Grant and existing budgets for on going initiatives.
9	Green Travel Plans (including school staff and pupils)	Reduce Vehicles			
10	Traffic Control schemes	Demand Management	Varied but tends to be a low impact on NO2 levels.	Highways and Transportation.	Highways and Transportation
11	Liaison with Highways Agency	Demand Management	Low impact on NO2 levels.	Environmental Health.	Environmental Health.
12	Planning Guidance for developers ?S106 agreements? Highways?	Demand Management	Medium impact on NO2 levels.	Environmental Health	Environmental Health.
13	IPPC	Reduce Emissions	High	Environmental Health	Environmental Health
14	SCA	Reduce Emissions	High	Environmental Health	Environmental Health.

	OPTION	Grouping	Air Quality Improvement	Responsibility to implement	Funding Source
15	Energy Efficiency	Reduce Emissions	High	Kingston upon Hull City Council Private Housing Section	Current revenue streams.
16	Publish AQ data	Awareness Raising	Not Known	Environmental Health	Defra grant and current revenue streams
17	School curriculum	Awareness Raising	Not Known	Environmental Health	Defra grant and current revenue streams
18	> use of rail for freight and people (KC Stadium)	Demand Management			
19	Real time information of Public Transport network	Demand Management	Not Known	Kingston upon Hull City Council Passenger Transport Services	Kingston upon Hull City Council Passenger Transport Services
20	Quality Bus Corridors	Demand Management	Medium impact on NO2 levels.	Highways and Transportation.	Highways and Transportation.
21	Zero pollution public transport	Reduce Emissions			
22	Park & Ride	Reduce Vehicles	Medium impact on NO2 in the AQMA due to low number of buses.	Kingston upon Hull City Council Passenger Transport Services and Highways and Transportation.	Kingston upon Hull City Council Passenger Transport Services and Highways and Transportation.
23	High Occupancy Vehicle Lanes	Demand Management			
24	Road user and workplace charging.	Demand Management			
25	20mph zones	Demand Management			
26	Traffic free areas	Demand Management			
27	Low emission zones	Reduce Vehicles			
28	Non-residential parking levy	Demand Management			
29	Car Pool Scheme	Reduce Vehicles			
30	Car Scrappage Schemes	Reduce Vehicles			
	OPTION	Grouping	Air Quality Improvement	Responsibility to implement	Funding Source

31	Speed Regulation	Demand Management			
32	Idling vehicles legislation	Reduce Emissions	Low impact on NO2	Environmental Health	Existing Budgets and Defra grant.
33	AQ objectives included in Annual Performance Reviews of Staff/Departments	Awareness Raising	Not Known	Environmental Health	Existing Budgets
34	AQ included in staff induction	Awareness Raising	Not Known	Environmental Health	Existing Budgets
35	Liaison with Primary Care Trust for health/AQ statistics	Reduce Vehicles	Low Impact on NO2	Environmental Health and PCT	Existing Budgets
36	Tree planting/green field policy	Reduce Emissions			
37	Reducing pollution from Council vehicles/activities	Reduce Emissions	Fleet management already have an excellent record in this area and reductions have already been counted.	Fleet Management	Existing Budgets.
38	Increase awareness	Awareness Raising	Not Known	Environmental Health	Existing budgets and Defra grant.
39	Review car allowances	Demand Management			
40	Incentive schemes for car share, travel passes, cycling allowances. Staff bikes	Reduce Vehicles			
41	Energy efficiency schemes	Reduce Emissions			
42	Promote LPG refuelling points	Demand Management			
43	Links with research groups.	Awareness Raising			
44	Liaison with P & O re ferries	Demand Management			
45	Investigate Sussex example for issuing text alerts on days of poor air quality	Awareness Raising			

Option.

Comments received during consultation

1. There is limited control over this option as not all car parks are Council owned. It can also create a problem when, having dropped someone off, vehicles could cruise around rather than paying for a short stay space. It could also add to the queuing problems on the A63 for vehicles trying to access Princes Quay car park. There could also be a perception of social exclusion.

[Comment from HA. Possible switch from long stay to short stay parking?](#)
[Comment from Transportation: Balance Nos vs Charge](#)
 - Cost can be high if numbers drop too much
 - Implements formula parking charges vs bus/P&R charges
 - Regular reviews on going
2. This is a possible measure to adopt as it's useful for raising awareness but it will have limited impact on levels within the AQMA.
[Comment from Transportation:](#)
 - Can increase congestion if stopping vehicles in inappropriate locations.
 - Have we got the power to stop vehicles? Require Police Assistance.
3. This would have financial implications that are liable to be passed on to the customer, therefore making it a less attractive option. It could also be seen as socially divisive and possibly push up the cost of bus travel.
[Comment from Transportation: already on going.](#)
[Comment from HA. This links to option 9, 19, 21 and 22.](#)
4. (Duplicate with 27) Expensive to implement and there could be some issues with trade associations and politicians. There could also be a perception of social exclusion. It could also create issues around deliveries. It could be seen as restrictive on trade. There could be problems in enforcement and limited Air Quality benefits.

[Comment from HA. Links to options 30, 5 & 6. May be problems with through traffic.](#)
[Comment from Transportation: What exactly does this mean?](#)
[Would there be enforcement issues?](#)
[Could it have a negative economic effect?](#)
5. Conversions can reduce boot space on taxis to below the legal standard. Cost could be prohibitive. Could be counter productive if cost of installation results in an increase in taxi fares.

[Comment from HA. Links to options 4 and 6.](#)

6. This could only realistically be achieved by either national measures or by encouraging larger operators to convert using some form of inducement. It could be difficult to enforce and there could be issues relating to restrictions on trade.

[Comment from HA. Links to 4 & 5.](#)
7. Possibly only achievable for specific situations and controlled by planning. Potential noise issues. Potential staffing issues.

[Comment from HA. This and option 18 need thoughts about demand management to suppress demand in cars where not desirable.](#)
8. This is to be pursued by us in conjunction with other “soft” measures and could have accident reduction benefits.
9. This is to be pursued by us in conjunction with other “soft” measures. There could be issues implementing and sustaining this measure.

[Comment from HA. Is hard to get at existing users. It’s okay for new users, so it may not be as effective as thought.](#)
10. Could be possible on a site by site basis. For example some measures are being considered or applied on Myton Gate.

[Comment from HA. This needs to link to the UTC system to get the greatest benefit from controlling the network as a whole rather than on a piecemeal basis.](#)
[Comment from Transportation: this will occur to compliment the junction changes that are proposed for Market Place and the Myton Bridge area.](#)
11. Done. (Meeting 04/05/2006 and early June)
[Comment from Transportation: Being done.](#)
12. Started but to be completed.

[Comment from HA. Needs to be a consistent approach from Hull CC and HA.](#)
13. On going
14. On going
15. (Duplicate with 41) Being done by the Authority, but we need to develop links and get more information.
16. Dependant on Air Quality Grant Bid.
17. This is to be pursued by us in conjunction with other “soft” measures.

18. This is problematic with huge costs. There's also little we as an Authority can do to influence it.
- Comment from HA. This and option 7 need thoughts about demand management to suppress demand in cars where not desirable.
- Comment from Transportation: - Network Rail, Rail Operating Companies, Yorkshire Forward and ABP – Proposals being progressed
- More freight transported by rail therefore frees up capacity on road to improve accessibility by freight on road
 - Passenger use – Stadium/HRI halt would not reduce flows on Castle Street
 - Only cater for predicted growth not reduce existing
19. Done to some extent.
- Comment from HA. Perhaps something similar for other road users such as VMS's etc?
- Comment from Transportation: Being progressed – certain areas currently have real time operating.
20. Done to some extent.
21. Could be expensive and costs are liable to be transferred to customers which could limit the benefits. Perhaps some form of incentive scheme could be developed?
- Comment from HA. This links to option 3, 9, 19 and 22.
- Comment from Transportation: Need dedicated system – lack of physical space for routes
22. Done and further sites being considered.
- Comment from HA. This links to option 3, 9, 19 and 21. It also needs to be linked to demand management to suppress demand.
23. It's doubtful that this is feasible in Hull.
- Comment from HA. There is little scope for this due to the huge demand for space currently, but it could be considered perhaps as part of a combined HOV/HGV lane.
- Comment from Transportation:
- Cost med not high.
 - Many journeys slower?
 - Not enough lanes and difficult to enforce.

24. This would have to be applied to all sites (including us) and could be seen as a restriction on inward investment or a further tax or social exclusion.
- Comment from HA. This may have to wait for national proposals and it would be very difficult for Hull to go it alone.
- Comment from Transportation:
Politically unacceptable
Economy too fragile – would have to be part of a regional or national scheme
People divert to inappropriate routes
25. All ready done. Do we have more than any other City?
- Comment from Transportation: Ongoing – However inappropriate for main routes
26. Possible, or maybe traffic free days as a scheme. Maybe link to national no car or national cycling day.
27. (Duplicate with 4)
28. Some already exist. It could be worth considering other areas, although this can be seen as an anti-car measure. It also needs the cooperation of the enforcement bodies although recent changes should mean that this isn't a problem.
- Comment from HA. This is the same as part of 24, although it has different words.
- Comment from Transportation:
Workplace parking charges
Have we got powers to enforce
Will economy stand it
29. The existing scheme is little used. Perhaps it's worth looking at why it's not used more?
30. This is probably not a good one. It's expensive and may be counter productive in the overall environmental stakes as vehicle life is reduced and it may also have a perception of social exclusion. Some vehicles are currently scrapped by the Police on occasions for vehicles without tax.
- Comment from HA. This is often done as part of Option 4.
- Comment from Transportation: What is this? Social Exclusion?
31. Needs to be precisely targeted.
- Comment from Transportation: Need to get speeds to optimum engine efficiency level not restrict further. This is to be examined further as speed limits are to be reviewed from a road safety perspective.

32. To be done.
 Comment from HA. This is difficult to Police and enforce.
 Comment from Transportation: Have we got the powers to enforce?
33. This needs more thought.
34. This is one to progress.
 Comment from HA. This could perhaps be widened to talks to all staff as part of a rolling programme of information dissemination.
35. This is already taking place, but needs to be developed further.
36. This is done already to some extent.
 Comment from Transportation: Are there significant opportunities in the City Centre?
37. This is already a consideration with fleet management.
 Comment from Transportation: Ongoing.
38. To be done in house.
39. Need to lead by example if we're going to pursue this one.
 Comment from Transportation:
 Social Exclusion?
 - May need financial input
 - Remove staff subsidies
 - Provide financial incentive for use of 'green travel'
 Restrict to use of particular car parks north of city centre
 Comment from HA. This and option 40 should be part of a good Green Travel Plan.
40. This one needs more thought.
 Comment from HA. This and option 40 should be part of a good Green Travel Plan.
 Comment from Transportation:
 - May need financial input
 - Remove staff subsidies
 - Provide financial incentive for use of 'green travel'
 Restrict to use of particular car parks north of city centre
41. (Duplicate with 15)
42. There is some form of national awareness for this, but it could be possible to expand this locally and possibly include bio-diesel.
43. This is liable to have limited success, but could be worth pursuing from an awareness and profile raising perspective.

44. This could have limited success due to the established nature of the ferry times and the shift patterns for turn round times. Perhaps the ferry company would consider a reduction in price for less polluting vehicles, although it is felt that they'd need an incentive to do so.

Comment from HA. What about liaison with the port regarding release of HGV's to the network during peak periods?

Comment from Transportation:

Not limited by tide – travel times at most desirable to customers.

Post consultation suggestions.

45. **Text alerts.**
Sussex scheme to be reviewed to determine practicalities of implementing in Hull area.
45. **No Car Lanes:**
Not deemed viable due to limited road space.
46. **Ramp Access Control.**
Transportation group feel that further work could be carried out into the feasibility of this as an option for controlling access to the A63 but that it will be after other options have been trialled.
47. **Footbridges over Castle Street.**
Some are to be built although there are some road safety issues as pedestrians seem to still opt to cross the main road directly.
48. **VMS. Car Park Guidance.**
Transportation group to consider expansion of existing VMS system and the addition of parking information.
49. **VMS Signing of delays on Trunk Road – Alternative Routes.**
HA feel cost of VMS boards could be restrictive on this option.
50. **Extension of incident monitoring/Breakdown clearing 'minute-man' scheme,**
To be investigated further by HA/Transportation group.
51. **Encouraging 24hour Hull.** To be investigated further with Development Control and Planning.

Appendix Seven: Reduction required.

Using the NSCA guidance on air quality action plans and the Bureau Veritas calculator for road side NO_x, the following estimates in traffic reduction have been calculated for the A63.

Table A7.1 Reduction required.

A63	NO ₂ µg/m ³	NO _x Equivalent
Max predicted value 2006	44	73
NO ₂ objective	40	79
Reduction required	4	6

It can be seen that a reduction in NO_x emissions of 6µg/m³ or around 8% is required to meet the National Air quality objectives in the AQMA.

Whilst the largest single contributor to the levels is traffic on the A63, some of the reduction will come about through national measures, such as tighter vehicle emission standards and some of the reduction will come about through “other” measures in the action plan, such as improved air quality in adjacent parts of the City.

Calculation and modelling has shown that a change in the ratio of heavy goods vehicles to light goods vehicles was liable to bring about the largest improvements in air quality, so measure 11, Liaison with the Highways Agency and measure 12, Planning guidance for developers, are liable to have a big impact, but such measures also have long lead in times. The situation is further complicated by the on going and the proposed changes to the road network and layout. A reduction of almost 16% would be required, or a change from 85:15 LDV:HDV to 90:10.

It is worth noting that recent studies have found that there is an increase in the amount of primary NO₂ being emitted from vehicles and that this drift is liable to continue for several years to come.

Appendix Eight.

Relationship between the Action Plan and a Stage Four review and assessment.

Stage Four Review and Assessment.

As the Environment Act 1995 states, the main purpose of the further assessment is to allow local authorities an opportunity to supplement the information they have already gathered from their earlier review and assessment work. The further assessment should provide the technical justification for the measures an authority includes in its action plan. It allows authorities:

- to confirm their original assessment of air quality against the prescribed objectives, and thus to ensure that they were right to designate the AQMA in the first place;
- to calculate more accurately how much of an improvement in air quality would be needed to deliver the air quality objectives within the AQMA;
- to refine their knowledge of the sources of pollution so that air quality action plans can be properly targeted;
- to take account of national policy developments which may come to light after the AQMA declaration;
- to take account as far as possible of any local policy developments which are likely to affect air quality by the relevant date, and which were not fully factored into earlier calculations. These might include, for example, the implications of any new transport schemes that are likely to be implemented in the vicinity of the AQMA, or of any new major housing or commercial developments that are likely to be built by the relevant date;
- to carry out real-time monitoring where this has not been done as part of the stage 1-3 reviews and assessments;
- to carry out further monitoring in problem areas to check earlier findings;
- to corroborate other assumptions on which the designation of the AQMA has been based, and to check that the original designation is still valid, and does not need amending in any way;
- to respond to any comments made by statutory consultees in respect of authorities' stage 1-3 reports, particularly where these have highlighted that insufficient attention has been paid to, eg, the validation of modelled data.

Government guidance states that It is anticipated that these documents will progress in parallel, and may even be submitted as one document. Whilst there are no 'hard and fast' rules on what should be included in the 'Stage 4' report and what should be covered in the Action Plan, the relationship between the two can be gathered from the table below.

Table A8.1 Stage 4 v Action Plan.

Stage 4	Action Plan
Quantification of the source contributions to pollution, so that the Action Plan can be effectively targeted can be found in Appendix 6 of this report.	Assessment of the various options open to the Authority to improve air quality within its area can be found in Chapter 4 of this report.
Assessment of the reduction in emissions required in order to deliver the air quality objectives are shown in Appendix Seven of this report.	Evaluation of the likely costs and benefits, resulting in proposals for the most cost-effective solution are shown in Chapter 5 of this report.
Assessment of the likely effects of the proposed action measures (for example using dispersion modelling) in order to determine whether the objectives will be met are shown in Appendix 6 of this report.	Timescale for implementation of the proposed measures are shown in Chapter4
Quantification of source contributions to pollution are shown in Appendix 7 of this report.	

It can be seen that the Action Plan covers many of the key areas of a Stage four review and assessment. The Government provides a Review and Assessment Appraisal Summary Sheet which enables Local Authorities to determine which specific issues they have considered in their further review.

The relevant parts of the Summary Sheet are shown in table A8.2 at the end of this appendix.

The sections on pollutants other than the oxides of nitrogen have been omitted from the table. The responses for each of them would be very similar, in that no additional monitoring has taken place over and above that which was occurring during the last progress report in 2006.

Modelling is carried out on a routine basis for development and planning applications and significant changes in traffic issues or other developments. The model used is ADMS-Urban, which has almost become industry standard. It has been subject to a series of local validations which are documented in previous review and assessments.

Sources outside the Local Authority area and changes as a consequence of National measures are taken into account throughout the on going review and assessment process.

None of the monitoring, modelling or review and assessment work shows a requirement for any further AQMA's or changes to the existing one. Therefore source apportionment, cost effectiveness, feasibility and quantification of any measures is not required for pollutants other than NO_x.

Redevelopment and Regeneration initiatives that may have an Impact on UK Air Quality Objectives

Over the next five to ten years the City of Hull will transform as a result of several major initiatives that are planned to regenerate the City.

These initiatives will affect the road networks and resultant traffic flows in and around the City Centre and within the Air Quality Management Area. The initiatives are all in the pipeline and it is proposed that the developments will begin over the next 5-10 years. My intention was to list the major initiatives within this update and screening assessment, with a view to following the progress of each of these initiatives in forthcoming reports ; USA, action plan progression reports.

Some of the major initiatives to be considered in forthcoming update and screening reports include:

- Short term improvements to Castle Street
- New park and ride schemes to the north and east of the City
- Completion of the St Stephens commercial and residential development
- Hull City Centre new transport interchange in association with the St Stephens development
- Cut and cover scheme for Castle Street
- Improvements to rail freight access to the port
- Work with ABP to develop and encourage new rail transfer facilities in the port
- 24 hour rail connection between Hull and the National network to benefit freight and passenger movement
- Development of Quay 2005 – new container terminal adjacent to Victoria Dock
- Development of Quay West – commercial development adjacent to Castle Street
- Proposal for an Energy from waste plant at Saltend, Hull

Each of these developments are significant in their own right in relation to affecting air emissions and resultant affects on the UK Air Quality Objectives. In future reports, progress on these developments will be examined and work will be undertaken to establish whether the developments, singly or cumulatively, would affect the UK Air Quality Objectives.

Table A8.2 Stage 4 Review & Assessment Checklist

Nitrogen Dioxide	Response	Comments
<p style="text-align: center;">MONITORING</p> <ul style="list-style-type: none"> • Has further monitoring been undertaken? • Is the 'totality' of the monitoring effort sufficient? • Has monitoring confirmed 2005 exceedances? • Has sufficient detail of QA/QC procedures been provided? • Has monitoring amended the conclusions of Stage 3? 	<p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">No</p>	<p>The diffusion tube network has been expanded and is due to be further expanded in the area of the exceedance to accommodate</p> <p style="text-align: center;">Documented in previous R&A reports.</p> <p>Confirmed and documented in 2006 Progress report.</p> <p style="text-align: center;">Documented in 2006 progress report.</p>
<p style="text-align: center;">MODELLING</p> <ul style="list-style-type: none"> • Has further modelling been undertaken? • Is the further modelling considered appropriate? • Has the model been appropriately validated? • Has modelling confirmed 2005 exceedances? • Has modelling amended the conclusions of Stage 3? 	<p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">No</p>	<p>Carried out as and when required. Generally as a consequence of planning applications or proposed changes to the road network.</p> <p>Modelling is now used to confirm the geographic extent of the AQMA and to assess any proposed changes.</p> <p>The model accuracy has been assessed in previous reports from this and other authorities.</p> <p style="text-align: center;">Supported by monitoring.</p>
<p style="text-align: center;">GENERAL</p> <ul style="list-style-type: none"> • Have both the magnitude and geographical extent of any exceedences been further changed? • Has the decision to declare an AQMA been reversed at Stage 4? • Is this decision soundly based? • Has the authority taken account of the new vehicle emission factors • Has the authority considered source apportionment? • Has the authority considered the cost effectiveness of different abatement options? • Has the authority considered feasibility and effectiveness of different abatement options? • Has the authority considered the extent to which air quality improvement is required? 	<p style="text-align: center;">No</p> <p style="text-align: center;">No</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes.</p>	<p>Monitoring has supported the findings of the Stage 3.</p> <p style="text-align: center;">Chapter 2 of the Action Plan</p> <p style="text-align: center;">Appendix 3 and Appendix 4 of the Action plan.</p> <p style="text-align: center;">Throughout Action Plan.</p> <p style="text-align: center;">Appendix Seven of Action Plan.</p>

Other Comments

Stage 4 Review & Assessment Checklist

MONITORING & MODELLING WORK	Response	Comments
<ul style="list-style-type: none"> • Have monitoring uncertainties been addressed fully? • Does the additional monitoring assessment appear sufficiently robust? • Have modelling uncertainties been addressed? • Has the model been carefully validated? • Does the overall modelling assessment appear sufficiently robust? 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Detailed in previous R&A reports</p> <p>Detailed in previous R&A reports and software suppliers reports.</p> <p>Detailed in previous R&A reports.</p>
AQO EXCEEDANCES & AQMA DECLARATION	Response	Comments
<ul style="list-style-type: none"> • Have areas of exceedence been further defined? • Is the decision to amend or revoke the AQMA(s) at Stage 4, soundly based? • Is the decision reached based principally on monitoring? • Is the decision reached based principally on modelling? 	<p>No</p> <p>Yes</p> <p>No</p>	<p>Confirms Stage three findings.</p> <p>No changes required.</p>
GENERAL	Response	Comments
<ul style="list-style-type: none"> • Has the authority focused on areas already identified as predicted to exceed objectives? • Has consideration been given to the exposure of individuals in relevant locations? • Has the authority considered new national policy developments? • Has the authority considered new local developments? • Does the report reach the expected conclusions? (in part/full?) • Has the authority undertaken further liaison with other agencies (in particular HA and EA?) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>But the wider impact and effects are being continually assessed.</p> <p>Discussions and joint working arrangements are on going with both agencies.</p>

Errors / Inadequacies							
	CO	Benz	1,3 But	Lead	NO ₂	PM ₁₀	SO ₂
Potentially sufficient to change conclusion							
Significant but probably not sufficient to change conclusion							
Minor and not sufficient to change conclusion							
Insignificant or none							
AQMA?							
	CO	Benz	1,3 But	Lead	NO ₂	PM ₁₀	SO ₂
Which pollutants remain the basis for an AQMA after S4?					✓		

Have issues raised in Stages 1 and 2 appraisal reports been adequately addressed (list outstanding questions)	YES		NO	
Comments				
1. Are there any NEW DATA emerging from the Review & Assessment process of wider use?				