CITY OF WAKEFIELD METROPOLITAN DISTRICT COUNCIL

Environmental Health Services

LOCAL AIR QUALITY MANAGEMENT

ACTION PLAN

2010

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SECTION 1

EXECUTIVE SUMMARY

This report has been prepared to fulfil the statutory obligation under section 84(2) of the Environment Act 1995 for local authorities who have declared part of their area an Air Quality Management Area (AQMA) to produce an Air Quality Action Plan (AQAP). The action plan sets out the measures that Wakefield Metropolitan District Council intends to introduce to improve air quality in pursuit of the National Air Quality Objectives.

Eight areas of the District have been progressively identified as areas where the nitrogen dioxide annual air quality objective was likely to be exceeded and subsequently declared as AQMAs. As the main source of poor air quality is associated with road transport it is our intention to integrate this draft action plan into the West Yorkshire Local Transport Plan 2 (WYLTP2)

This draft AQAP describes the processes that are in place and sets out the measures that are being considered to deliver improvements to air quality within the District. These measures have been identified and appraised as to their cost effectiveness and likely impact on both the AQMAs and District as a whole. A detailed evaluation of these measures is being considered, in close consultation with WYLTP colleagues, planners, and transport engineers, once the plan is integrated into the LTP.

Table 1 summarises the proposed measure assessment results. Resulting actions have been produced which are summarised with implementation timescale and responsible body in table 2.

Table 1 – AIR QUALITY ACTION PLAN MEASURES ASSESSMENT SUMMARY

Strategic Highways Measures						
Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Road widening	Medium	Very High	Low positive	Low Positive	Medium Positive	Medium
Congestion	Medium	High	Low Positive	Medium Positive	Medium Positive	Short
Demand	Medium	Medium	Medium Positive	Medium Positive	Medium Positive	Short
WYLTP2 Congestion Measures						
C1 – Encourage Mode Switch to Public Transport						
Bus Strategy	Medium	Medium	Low Positive	Medium Positive	Low Positive	Short (2009)
YBI	Medium	Medium	Low Positive	Medium Positive	Low Positive	Short (2009)
Improved Bus Performance	Low	Low	Low Positive	Low Positive	Low Positive	Short
Rail Strategy	Medium	Medium	Medium Positive	Medium Positive	Low Positive	Short (2009)
Travel to School	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short
Free City Bus	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2009)
Park & Ride	Medium	Medium	Medium Positive	Medium Positive	Medium Positive	Medium (2011)
C2 - Manage the Demand for Travel & C3 Making Best use of the Existing Capacity						
Car Parking	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2009)
Reallocation of road space	Low	Low	Low Positive	Low Positive	Low Positive	Medium (2011)
UTMC	Low	Low	Low Positive	Low Positive	Low Positive	Medium (2009)
C4 - Improve the Highway Network						
Urban By-pass	High	V. High	Medium Positive	Medium Positive	Medium Positive	Long (began 2009)
Major Developments	Low	Medium	Medium Positive	Low Positive	Medium Positive	Short
C5 - Encouraging more Walking and Cycling						
ROWIP	Medium	Low	Medium Positive	High Positive	Medium Positive	Short
Walking	Medium	Low	Medium Positive	High Positive	Low Positive	Short (2009)
Cycling	Medium	Low	Medium Positive	High Positive	Low Positive	Short (2009)
C6 Promote Smarter Choices in Travel						
Travel Plans	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2010)
Car Share	Low	Low	Medium Positive	Low Positive	Low Positive	Short (2010)

Other Wakefield District Council Measures						
Emissions Management Measures						
Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Taxis	Low	Low	Low positive	Low positive	Low positive	Short
Transport Fleet	Low	Medium	Low positive	Low positive	Low positive	Medium (2012)
Bus emission standards	Low	Medium	Low positive	Low positive	Low positive	Medium
LEZs	Low	Medium	Low positive	Low positive	Low positive	Medium
HGVs routing	Low	Low	Low positive	Low positive	Low positive	Short
Non-transport emissions	Low	Low	Medium positive	Medium positive	Low positive	Short
Promoting & Providing Alternatives Measures						
Pedestrian areas	Medium	Low	Low Positive	Low Positive	Low Positive	Short
Home Zones	Medium	Low	Low Positive	Low Positive	Low Positive	Short
Flexible working	Low	Low	Low Positive	Low Positive	Low Positive	Short
Use of waterways	Low	Low	Low Positive	Low Positive	Low Positive	Short
Raising Awareness Measures						
Schools & Businesses	Low	Low	Low Positive	Low Positive	Low Positive	Short
Health Promotion	Low	Low	Low Positive	Low Positive	Low Positive	Short
Intelligent Information points	Low	Low	Low Positive	Low Positive	Low Positive	Short
Planning and Land Use Development Measures						
LDF Policies	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short (2009)
Planning Guidance	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short
Planning Obligation	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short

Table 2 MEASURES ASSESSMENT ACTIONS SUMMARY

STRATEGIC HIGHWAYS MEASURES		
Action	**Timescale**	**Responsibility**
We will improve our relationship with the Highways Agency so that a closer understanding and appreciation of working arrangements and operations is achieved. This will be undertaken through the West Yorkshire Transport Emissions Group (WYTEG) of the WYLTP and by utilising more fully the written procedures for Action Plan consultation.	12 months	WYTEG
We will strongly support the non-infrastructure measures identified by the Highways Agency that require local authority commitment where positive outcomes for the District are shown from the impact assessments.	Implemented 2009	WMDC
WYLTP2 CONGESTION MEASURES		
C1 – Encourage Mode Switch to Public Transport		
Ensure that the Metro Bus Strategy is fully implemented and that further development of the strategy continues with increased emphasis on measures to further improve air quality.	Implemented 2009	WYLTP & WMDC
Ensure that air quality measures form a major part of future bids. Changes to infrastructure, vehicles and the network will have a major influence on future road use in urban areas and the potential for innovation on such areas as fuel and engine types, driving modes etc. is large.	Implemented 2009	WYLTP & WMDC
Ensure that the Rail Strategy is fully implemented and that integration with other modes of transport including the provision of Park and Ride, cycling facilities and improved bus provision, is fully committed.	Implemented 2009	WYLTP & WMDC
Encourage the expansion of the MYBus scheme and ensure that the commitment to increasing the level of alternative travel to school modes is maintained.	Short Term	WYLTP & WMDC
Investigate the potential for expanding the Wakefield Free City Bus scheme to other towns and into suburban areas of Wakefield City with the opportunity to link to future Park and Ride schemes.	Implemented 2009	WMDC
Ensure that air quality remains a major component in the bidding for the establishment of Park and Ride facilities within the District. Further consultation with the Highways Agency is required to ensure that Park and Ride facilities on the strategic highway junctions within the District are encouraged.	2011	WYLTP & WMDC
C2 – Manage the Demand for Travel & C3 – Making the Best Use of the Existing Capacity		
Ensure that the recommendations of the Wakefield Parking Strategy are fully implemented and integrated into the LDF process. A further assessment of the impact of the strategy is recommended in the future to establish any further changes following the regeneration of town and city.	2009	WMDC
Investigate the true impact of implementing HOV lanes in the District and the level of enforcement and other resources required to maintain the scheme. The relative resource expenditure may not result in a cost effective increase in air quality unless the scheme is fully integrated into other measures, such as Park and Ride.	2011	WMDC
Investigate further improvements in the UTMC system and the potential for linking to transport and air quality modelling capability. A fully integrated system has the potential for: early warning of problems linking to roadside information systems; early reallocation of congestion problems and testing of “what-if” scenarios for future development and transport schemes.	2011	WYLTP & WMDC

Action	Timescale	Responsibility
C4 – Improve the Highway Network		
A detailed assessment of the likely air quality impacts of the proposed by-pass proposals should be considered to provide a better understanding of the cost effectiveness of such expensive proposals. This could be achieved utilising improved traffic and air dispersion models available within the Authority.	Implemented 2009	WMDC
Most of the proposed major developments have gained planning approval and some are in early development stages. Air quality assessments undertaken as part of the planning process were individually, unable to identify the impact of all the schemes together. It is recommended that support is given for post development monitoring and modelling to establish the actual air quality impacts of all the schemes, particularly in Wakefield City, through WYLTP.	Short Term	WMDC
C5 – Encourage more Walking and Cycling		
Further support is required for the implementation and operation of the commitment to ROWIP and the Wakefield Local Access Forum. Additional promotion and marketing of the schemes should be investigated through WYLTP.	Short Term	WYLTP & WMDC
Additional support and promotion of the Healthy Walks and Cycling schemes should be considered through WYLTP and PCTs.	Implemented 2009	WYLTP & WMDC
Methods of improving the links with all groups involved in measures to encourage non car use and promoting smart, sustainable choices should be undertaken to increase the effectiveness and efficiency of the proposals.	Implemented 2009	WMDC
C6 – Promote Smarter Choices for Travel		
Further support is required for the Travel Awareness, School Transport, Healthy Transport services to improve the implementation of school travel plans and information. A study of the further needs and priorities of the services is recommended.	2010	WMDC
Additional promotion of the WYLTN is required to increase the awareness and availability of the scheme. Evidence of its impact is required with a further marketing campaign to increase the uptake of the service.	12 Months	WYLTP, Metro & WMDC
Additional car sharing opportunities such as car pooling or vehicle logistics should be investigated within the People-2-Places scheme. A feasibility study is recommended.	Implemented 2009	WMDC
WYLTP2 AIR QUALITY MEASURES		
It is evident that much consideration within the LTP has been given to reducing congestion and an assumption made that air quality improvements will occur as a consequence. This may not be the case because of the volume of traffic or the receptor locations. Much more work is required into identifying and assessing local air quality measures as well as the tools to monitor and model their outcomes. A local district transport model linked closely to improved air quality modelling and monitoring is recommended. This transport model should be adapted from the existing STM used for West Yorkshire and support given to air quality measure monitoring capability.	Short Term	WYTEG

OTHER WAKEFIELD DISTRICT COUNCIL MEASURES		
Action	**Timescale**	**Responsibility**
Emission Management Measures		
A taxi emissions strategy that includes an analysis of the economics, the potential financial support mechanisms and progressive introduction of tighter engine emission standards is recommended.	Short Term	WMDC
A tightened fit for purpose mechanical check of taxis that includes emissions checks to ensure that they meet the current vehicle standards as well as reducing the taxi fleet age will be investigated.	Short Term	WMDC
Ensure that the national air quality indicator is achieved as soon as practicable and continued reduction in emissions from Council vehicles and buildings is demonstrated.	2012	WMDC
Ensure that there is a progressive increase in the number of buses meeting the more stringent emission standards as well as reducing the number of older vehicles through WYLTP and METRO.	Medium Term	WYLTP, Metro & WMDC
The air quality outcomes arising from the introduction of the London LEZ should be evaluated and assessed by WYLTP (through the WYTEG) for consideration in future LTPs.	Short Term	WYLTP & WMDC
An assessment of HGV movements through the main urban areas is recommended that can be used to formulate a routing system that maximises efficiency and minimises trips through residential locations.	Short Term	WMDC
Further support is required for Environmental Health Services to maintain their enforcement of clean air legislation as well as improving liaison with the Home Energy Team in data gathering.	12 Months	WMDC
A bid for funding through the Air Quality Grant process has been made for a screening road emissions survey in Wakefield District to establish an indication of current vehicle emissions. A repeated exercise would then be undertaken following specific action plan measures to aid improvement assessment. Further support and feasibility study of a WYLTP supported study is recommended.	Short Term	WYTEG
A reconsideration and reassessment of the non adoption of the roadside emissions regulations is proposed to include resourcing implications.	12 Months	WMDC
Promoting & Providing Alternatives Measures		
Investigation of the potential for expansion of local urban pedestrian areas and home zones throughout the District will be undertaken. The two measures can act together in persuading both a reduction in car traffic and modal shift. Identified regeneration projects need to ensure that priority is given to the pedestrian and local resident. Future projects will require the same priorities through the LDF and development control process.	Implemented 2009	WYLTP & WMDC
Flexible working as part of a “work life balance” philosophy is already working within the Council. Promoting the successes to local business and services that are influenced by the Council, through human resources should be encouraged.	2011	WMDC
Investigation of the potential for utilising the navigable waterways in the District that could link both urban regeneration and commuting traffic points into town centres will be requested of WYLTP and WMDC.	Short Term	WMDC

Action	Timescale	Responsibility
Raising Awareness Measures		
A feasibility study is proposed of the potential for utilising WMDC Travel Awareness and Road Safety facility, Environmental Health and associated training bodies to establish school and business environmental training.	Short Term	WMDC
Improved relationship with the PCTs is proposed that enables a greater understanding of the influence of environmental pressures on health. Projects such as the increased cost to health services of poor air quality associated with strategic highways (not influenced by local authority), and the impacts of health warnings to targeted groups will aid the effectiveness and efficiency of improvement actions. Joint promotional working already exists and should be expanded to accommodate transport and air quality where possible.	12 Months	LAA
The potential for providing a network of intelligent information points for transport, air quality , general environment and local authority information should be investigated in conjunction with HA, WYLTP and WMDC.	Medium Term	HA, WYLTP & WMDC
Planning and Land Use Development Measures		
Ensure that Draft LDF air quality policies are implemented with continued improvement in liaison with members of the Spatial Policy and Regeneration teams dealing with significant developments within the District.	Implemented 2009	WMDC
Provide further support for Environmental Health Services in developing planning guidance and training for both planners and developers. Existing air quality planning guidance, once formally approved by Planning, will be amended and updated as required from continuing consultation.	12 Months	WMDC
Ensure that the Planning Obligation document once published provides the necessary funds for the identified measures to improve local air quality. In addition, continue and improve liaison with officers and developers dealing with planning obligation commitments.	12 Months	WMDC
Consultation		
It is recommended that a formal consultation process is devised that utilises either the existing WYLTP consultation framework and/or individual member consultations processes as part of the integration of Action Plans.	12 Months	WYTEG
Monitoring		
An assessment is recommended of an alternative air quality mandatory indicator that reflects more closely, the impact of WYLTP2 measures on local air quality.	12 Months	WYTEG
An investigation of a more formalised approach to the provision of monitoring and modelling capability for WYLTP is recommended. The local air quality management review and assessment process may not provide the specific monitoring and modelling details and additional more specific, capability may be required.	Short Term	WYTEG

SECTION 2

LEGISLATIVE AND POLICY FRAMEWORK

The National Air Quality Strategy (NAQS)[1] sets out the principle policies and structures necessary to achieve effective air quality management. This process is legislated by Part IV of the Environment Act 1995 and the main elements of the Act are summarised in table 3.

Table 3 – MAJOR ELEMENTS OF THE ENVIRONMENT ACT 1995

PART IV	DETAILED COMMENTARY
Section 80	Obliges the Secretary of State (SOS) to publish a National Air Quality Strategy as soon as possible.
Section 81	Obliges the Environment Agency to take account of the Strategy.
Section 82	Requires local authorities, any unitary or district, to review air quality and to assess whether the air quality standards and objectives are being achieved. Areas where standards fall short must be identified.
Section 83	Requires a local authority, for any area where air quality standards are not being met, to issue an order designating it an air quality management area (AQMA).
Section 84	Imposes duties on a local authority with respect to AQMAs. The local authority must carry out further assessments and draw up an action plan specifying the measures to be carried out and the time-scale to bring air quality in the area back within the limits.
Section 85	Gives reserve powers to cause assessments to be made in an area and give instructions to a local authority to take specified actions. Authorities have a duty to comply with these instructions.
Section 86	Provides for the role of County Councils to make recommendations to a district on the carrying out of an air quality assessment and the preparation of an action plan.
Section 87	Provides the SOS with wide ranging powers to make regulations concerning air quality. These include standards and objectives, the conferring of powers and duties, the prohibition and restriction of certain activities or vehicles, the obtaining of information, the levying of fines and penalties, the hearing of appeals and other criteria. The regulations must be approved by affirmative resolution of both Houses of Parliament.
Section 88	Provides powers to make guidance which local authorities must have regard to.

The concept of Local air Quality Management (LAQM) and the process of "review and assessment" was established in the 1997 National Air Quality Strategy (NAQS). In 2000, Government reviewed the NAQS and set down a revised Air Quality Strategy for England, Scotland, Wales and Northern Ireland. This established a revised framework for air quality objectives for seven pollutants, which were subsequently prescribed into Regulation in 2000 via the Air Quality Regulations 2000[2] and amended in 2003.

[1] DEFRA (2000), "The Air Quality Strategy for England, Wales and Northern Ireland – Working Together for Clean Air".
[2] DEFRA (2002), "The Air Quality Regulations 2000 (Amendment 2003).

A further strategy revision was produced in July 2007[3]. It identified further national policies to enhance the level of air quality improvements required to meet the European Directives. The long term challenge for maintaining good air quality and the link with climate change have been included. It also introduced, for the first time, the concept of exposure reduction as a means of providing an effective objective for pollutants with no obvious health impact limit. In this case, a new objective for $PM_{2.5}$ includes an urban background exposure reduction of 15% from 2010 to 2020 with a "backstop" limit of 25µg/m^3 as an annual mean.

For each air quality objective prescribed in the Regulations, local authorities have to consider whether the objective is likely to be achieved by the due date. Where it appears likely that the air quality objectives will not be met by the designated target dates, local authorities must declare an Air Quality Management Area (AQMA). Following the declaration, the authority must than carry out a Further Assessment of existing and likely future air quality and develop an Air Quality Action Plan (AQAP) which sets out the local measures to be implemented in pursuit of the air quality objectives.

Policy Guidance LAQM.PG (03)[4] published by the Government in 2003, provides guidance on the development of action plans. The AQAP is expected to include the following:

- Quantification of the source contributions to the predicted exceedence of the objectives which will allow action plan measures to be effectively targeted;
- evidence that all available options have been considered on the grounds of cost effectiveness and feasibility;
- how the local authority will use its powers and also work in conjunction with other organisations in pursuit of the Air Quality Objectives;
- clear timescales in which the authority and other organisations and agencies propose to implement the measures within its plan;
- quantification of the expected impacts of the proposed measures and, where possible, an indication as to whether the measures will be sufficient to meet the air quality objectives; and
- how the local authority intends to monitor and evaluate the effectiveness of the plan.

[3] DEFRA (2007), "The Air Quality Strategy for England, Scotland, Wales and Northern Ireland".
[4] DEFRA (2003), Part IV of the Environment Act 1995, Local Air Quality Management Policy Guidance (LAQM.PG (03)).

In December 2001, the then Office of the Deputy Prime Minister (ODPM) set out proposals to reform council services with the intent to give more freedom and flexibilities to local authorities, and reduce the burden to produce and submit plans. One outcome is that local authorities are no longer required to produce a separate AQAP where the problem is related to road transport predominantly. In such cases, local authorities are advised to incorporate the AQAP into their Local Transport Plan (LTP).

Supplementary guidance on integrating AQAPs into the LTP was issued by DEFRA in 2005 (LAQM.PGA (05))[5]. The LTP should contain the following:

- Summary of the current situation including the number of AQMAs and breakdown of sources;

- Consideration of all available measures to tackle the sources on the grounds of air quality impacts, cost effectiveness and feasibility.

- It requires a table setting out both costs and anticipated air quality improvements for each of the principal measures, and to indicate if these measures will provide the necessary improvement to meet the air quality objectives. Ranking of the measures based on air quality impacts, their cost-effectiveness, feasibility and timescale is also required.

- Set out wider environmental, social and economic impacts of the proposed measures. These should be quantified where possible.

- A summary of all chosen measures that will be implemented setting out:
    - The main impact assessments (reductions required)
    - Wider environment, social & economic consequences of each option;
    - Target dates for implementation of the measures;
    - Responsibility for the action;
    - Indication of the funding mechanism for the measures;
    - How the authority will monitor progress on measure implementation.

- A base year and target years relating to pollutant concentrations in those calendar years supplemented by annual trajectories for progress against targets intermediate outcomes. Such as:
    - Total transport emissions within the AQMAs;
    - Reduction in transport emissions relating to specific action plan measures;
    - Bus patronage;
    - Reduction in number of vehicles on the road.

Authorities should demonstrate that the risks of not meeting the targets have been considered.

[5] DEFRA (2005) Policy Guidance: Addendum LAQM.PG(05)

SECTION 3

AIR QUALITY MANAGEMENT STATUS

The Review and Assessment process has been undertaken following Government guidance LAQM.PGA (05) through a staged approach. Table 4 summarises the outcomes of the three rounds to date.

Table 4 REVIEW & ASSESSMENT SUMMARY

Round 1	Date	Outcome	Declaration
Stage 1	1999	Progress to Stage 2 for all pollutants	21/04/2004
Stage 2	2001	Progress to Stage 3 for NO_2, SO_2, PM_{10}	
Stage 3	2002	Recommended declaration of 2 AQMAs (M1, A1)	
Further Assessment	2005	Confirmation of the 2 AQMAs	
Action Plan	2005	Measures integrated into Local Transport Plan	
Round 2		**Outcome**	
U.S.A	2003	Progress to Detailed for NO_2, SO_2, PM_{10}	01/03/2006
Detailed Assessment	2004	Recommended declaration of 2 new AQMAs and amendment of the existing 2	
Further Assessment	2007	Confirmation of AQMAs	
Round 3		**Outcome**	
U.S.A.	2006	No progress to Detailed Assessment. Recommendation declaration of 4 previously identified Areas of exceedence as AQMAs.	11/06/2007
Round 4		**Outcome**	
U.S.A	2009	No progress to Detailed Assessment.	
Detailed Assessment	2009	Proposed AQMA for Ackworth.	

3.1 ROUND ONE OUTCOME

Exceedence of the annual mean objective for nitrogen dioxide was established and two AQMAs were declared:

- a corridor following the M1 motorway through the District; and
- a small area on the A1 at West Park Terrace.

3.2 ROUND TWO OUTCOME

Four further areas were identified as unlikely to meet the national annual mean nitrogen dioxide objective. These were formally identified as:

- An amended M1 Air Quality Management Area;
- An amended A1 Air Quality Management Area;
- The M62 Air Quality Management Area, and;
- The Wakefield City Air Quality Management Area.

3.3 ROUND THREE OUTCOME

The third round review and assessment confirmed that previously identified likely exceedence areas not formally declared, should be declared. These were declared, following formal consultation, on 11th June 2007. The areas being:

- An area covering the centre of Castleford;
- An area covering the centre of Featherstone;
- An area covering the centre of Pontefract, and;
- An area covering the centre of Knottingley and extending the existing M62 AQMA.

Appendix 1 includes maps of the AQMAs.

3.4 ROUND FOUR OUTCOME

The revised fourth round updating and screening assessment did not identify the need to progress to a detailed assessment in any location. A detailed assessment proposed the declaration of an AQMA running through the main centre of Ackworth. Following consultation, the area will be declared in 2010.

3.5 FURTHER ASSESSMENTS AND ACTION PLANS

3.5.1 2005 Further Assessment and Action Plan

The boundaries of the AQMAs were established after consultation with stakeholders. The conclusions were that for effective implementation of mitigation measures a wider boundary than that of the actual exceedence area was required. In addition, further screening monitoring within the AQMA would establish a closer determination of the actual exceedence area.

As required under section 84 of the Environment Act, a Further Assessment and Action Plan is necessary. During the interim period from the declaration of two AQMAs in the first round of review and assessment, up to the Further Assessment and Action Plan production, the second round of review and assessment was undertaken which identified two further areas in the District requiring declaration as AQMAs. It was felt that a delay in Action Plan production was appropriate which would allow the new AQMAs to be incorporated in the Plan. However, this was not

approved by DEFRA who insisted that the Plan for the original AQMAs had to be produced within the set time period.
The Further Assessment was subsequently published in January 2005 providing an apportionment of source contributions and the required improvement necessary to meet the nitrogen dioxide objective[6]. This was then used to inform the Action Plan that was published in October 2005.

The 32 measures included in the Plan attempted to provide a basis for mitigation throughout the District as well as initiating improved understanding of air quality matters within the authority.

3.5.2 2007 Further Assessment

The Detailed Assessment of 2004 in round two of the Review and Assessment identified a number of areas exceeding the annual mean nitrogen dioxide objective. Two of these areas were declared following stakeholder consultation. However, a further four areas that were recommended for declaration were opposed at the time for political and economic reasons.

The third round Updating and Screening assessment confirmed through further monitoring, that the previously undeclared areas were still exceeding the annual mean nitrogen dioxide objective. Through discussions with various helpdesks and DEFRA officials it was established that these areas of exceedence had to be declared or face potential litigation. They were subsequently declared in June 2007.
The required Further Assessment of 2007 covered both the second and third round declarations.

[6] http://www.wakefield.gov.uk/Environment/AirQualityAndPollution/AirQuality/default.htm

SECTION 4

THE PROBLEM

4.1 DISTRICT PROFILE

The Wakefield Metropolitan District covers some 350 square kilometres and forms one of five districts in West Yorkshire (figure 1) and one of ten districts in the Leeds City Region (figure 2).

Figure 1 WEST YORKSHIRE CONURBATION

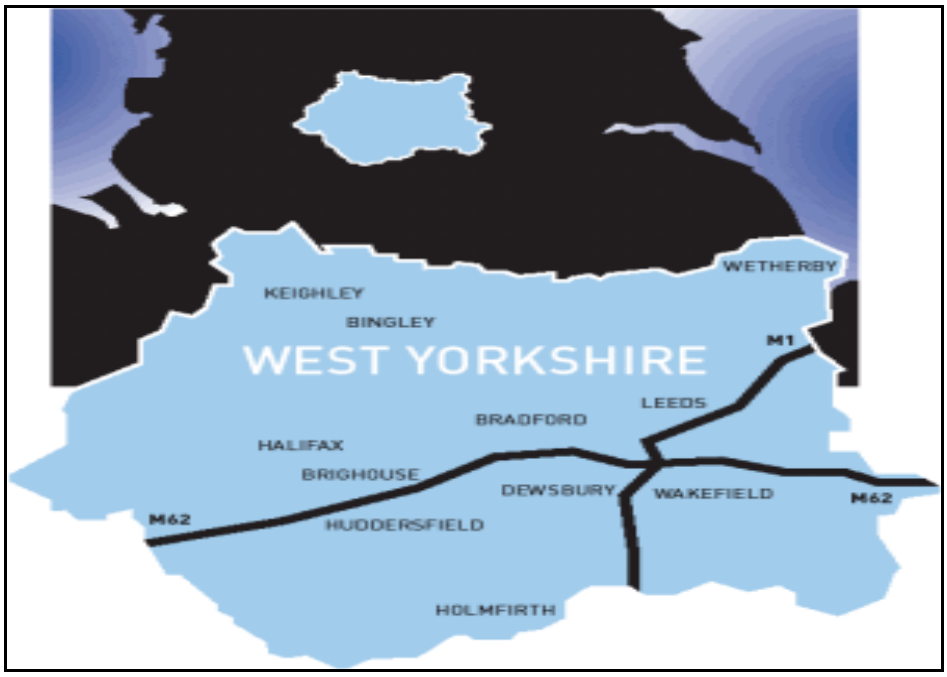
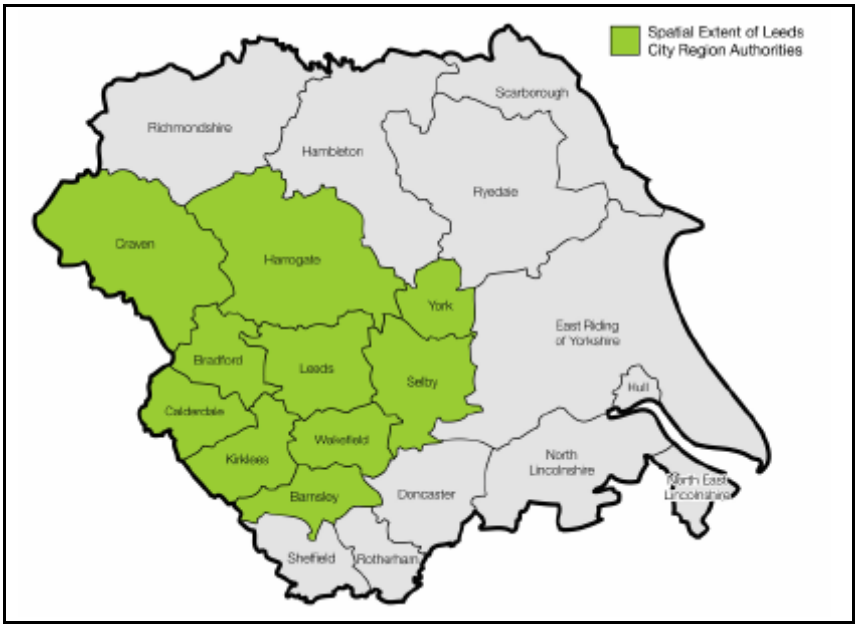


Figure 2 EXTENT OF THE LEEDS CITY REGION



The District occupies a strategic location astride the M1, M62, A1 and main East Coast rail line (figure 3). This, and its proximity to Leeds, make Wakefield District highly accessible and able to play a prominent role within the Leeds City Region.

The north of the District is largely urban with Wakefield City as the main centre for jobs, shopping, leisure, culture and health. The towns of Ossett and Horbury to the west of Wakefield City whilst providing local employment and services have also become commuter settlements for Leeds.

The Five Towns, comprising the principle service centres of Castleford and Pontefract and the smaller towns of Normanton, Knottingley and Featherstone, are located in the north-east of the District astride the M62 and A1.

The South-East includes the towns of Hemsworth, South Kirkby and South Elmsall together with a number of smaller settlements whose development has been associated with the former mining industry.

4.2 AIR QUALITY RELATED ISSUES FACING THE DISTRICT

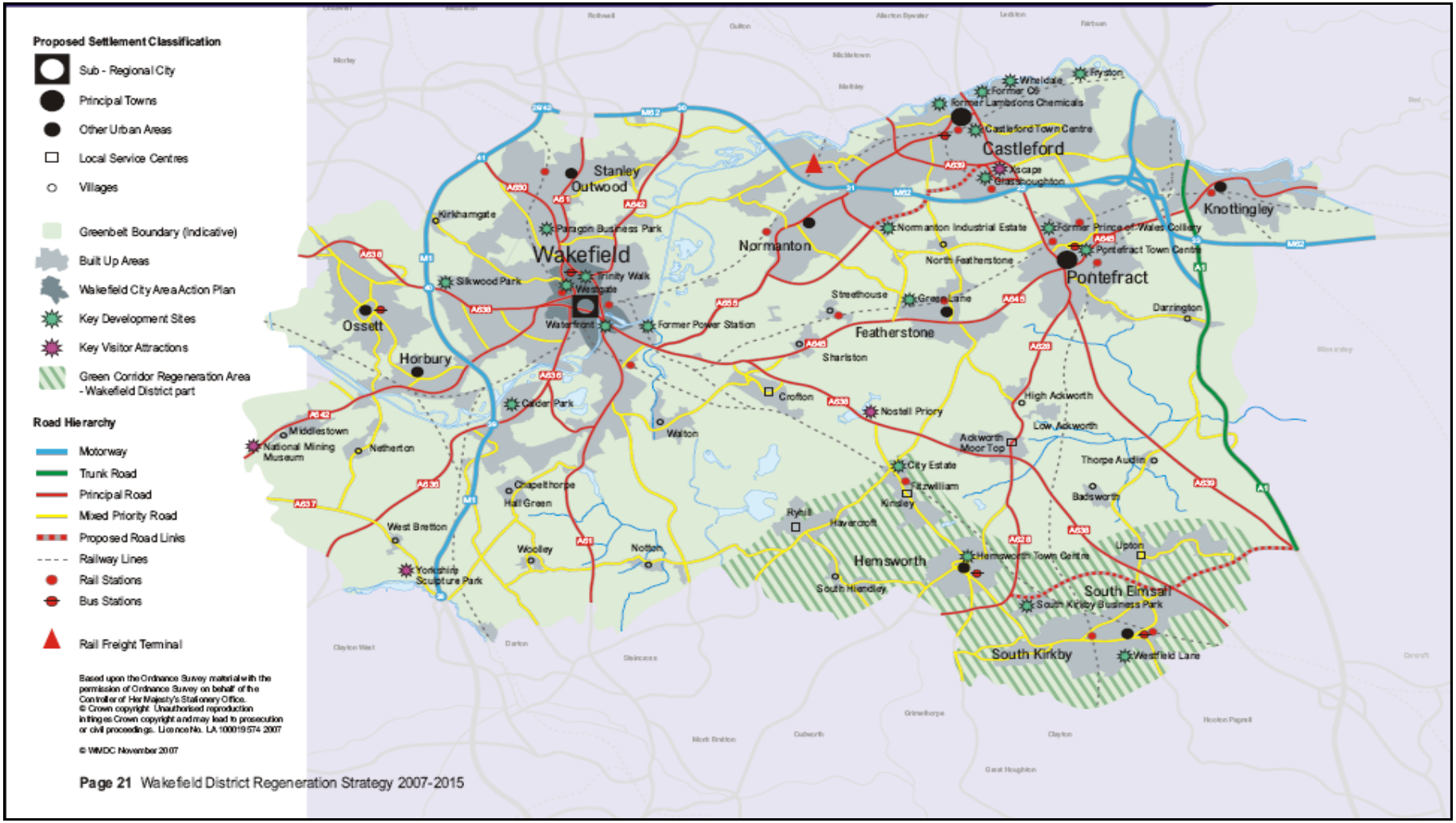
As with most towns and cities, there is a need to ensure a continuing increase in prosperity through job creation, business development, better quality housing, and leisure opportunities, whilst maintaining health, education, culture and environment. Unfortunately, the increase in housing, commercial development and travel results in poor air quality, as a result of increasing urbanisation linked to poor planning, design and transport infrastructure.

4.2.1 Housing

The rate of new housing in the District has been higher than that prescribed in the Unitary Development Plan[7]. The demand for new housing remains high in the north and west of the District, resulting from the growth of the Leeds economy which has attracted people into the District looking for cheaper housing costs. This has led to increases in commuter journeys, particularly by car.

[7] http://www.wakefield.gov.uk/Planning/SpatialPolicy/UDP/default.htm

Figure 3 WAKEFIELD DISTRICT URBAN AREAS AND KEY SITES



4.2.2 Economy

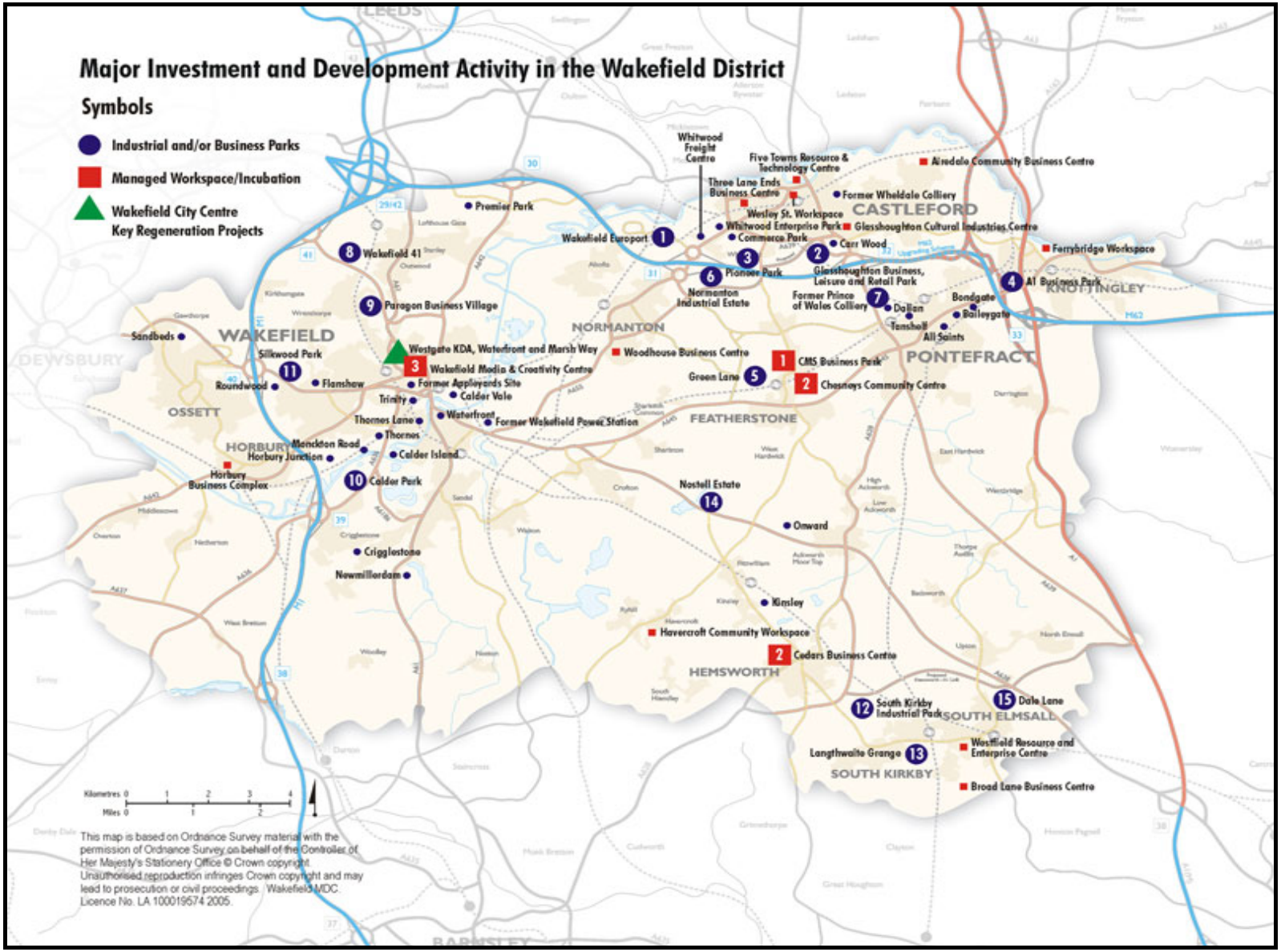
The District forms an integral part of a wider regional economy and labour market and enjoys the benefits of its proximity to Leeds, one of the fastest growing cities in the UK. There has been a dramatic restructuring of employment over the last 20 years with distribution and service industries replacing coal mining and other traditional manufacturing industries (figure 4). This type of employment relies heavily on the use of the three strategic highways for moving goods and services. Growth in this type of development is expected to increase and is being promoted:

“Wakefield is centrally located at the heart of the UK's communications network. Its strategic position at the intersection of the M1 and M62 motorways provides excellent access to all parts of the UK by road, rail, air or sea”. [8]

This reliance on road use will inevitably increase the pressure on the highway system causing severe congestion and thus lead to a reduction in air quality. This may ultimately in turn, have a negative effect on the ability of local “industry” to operate effectively in the area.

[8] http://www.wakefieldfirst.com/?c=/pages/whyWakefieldPage.jsp

Figure 4 ECONOMIC ACTIVITY IN WAKEFIELD DISTRICT



4.2.3 Transport

Transport is a key source of many air pollutants. There are two trends in the road transport sector that work in opposite directions: new vehicles are becoming individually cleaner in response to legislation, but vehicle kilometres are increasing, outweighing the benefits of cleaner technology.

Nationally, "the highest traffic growth is forecast on motorways and trunk roads with slower growth forecast in already congested urban areas"[9]. Some 15% growth is expected by 2010 and 30% by 2025. A significant increase in the number of Light Diesel Vehicles (LDV) and Heavy Diesel Vehicles (HDV) is also expected, particularly on motorways. This pattern varies from region to region depending on the level of economic activity and population changes. In the Yorkshire and Humber region recent increases in the prosperity, particularly with the economic fortunes of Leeds, has shown a much greater traffic growth. "Between 2001 and 2006 there was 14% growth in motorway traffic in the region but 2% nationally – also overcrowded trains"[10].

Recent traffic growth across West Yorkshire has remained below the national average despite significant economic growth. However, a continued forecasted 1% increase in traffic growth per year will be unsustainable, particularly where congestion already exists on many strategic and trunk roads. The motorways and in particular the M1 from Sheffield to Leeds is heavily congested for much of the day and often at a standstill in the morning peak. Congestion on the local road network is made worse by traffic trying both to avoid the motorway network and to access it.

The Wakefield District contains three strategic highways (M1, M62 and A1); a national rail route, a viable canal network and near enough to be influenced by two airports: Leeds/Bradford and Robin Hood Doncaster Sheffield (figure 5). It suffers much of the congestion problems highlighted above on both strategic and local roads. Levels of car ownership in the district are below national averages but are expected to rapidly increase as incomes rise. Despite low car ownership, more people use their cars to travel to work than in the region as a whole or nationally, and journeys are longer. This is believed to be related again to the economic boom in Leeds which has resulted in extended commuter journeys from people relocating into non city housing areas (figure 6).

[9] Dft, "Road Transport forecasts for England 2007- Results from National Transport Model"
[10] Yorkshire Assembly "Regional Transport Board – February 2008"

Figure 5 WAKEFIELD DISTRICT TRANSPORT NETWORK

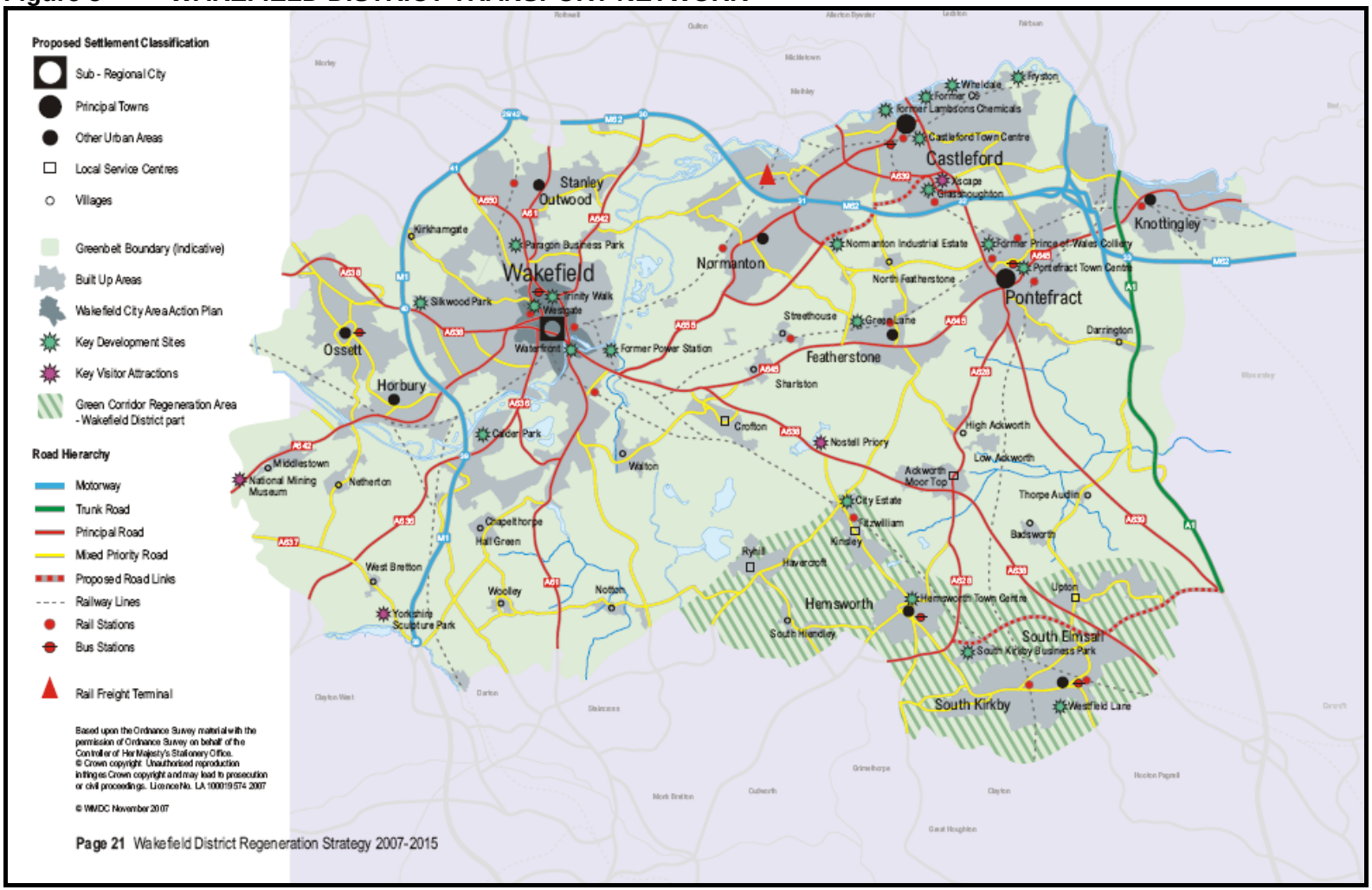
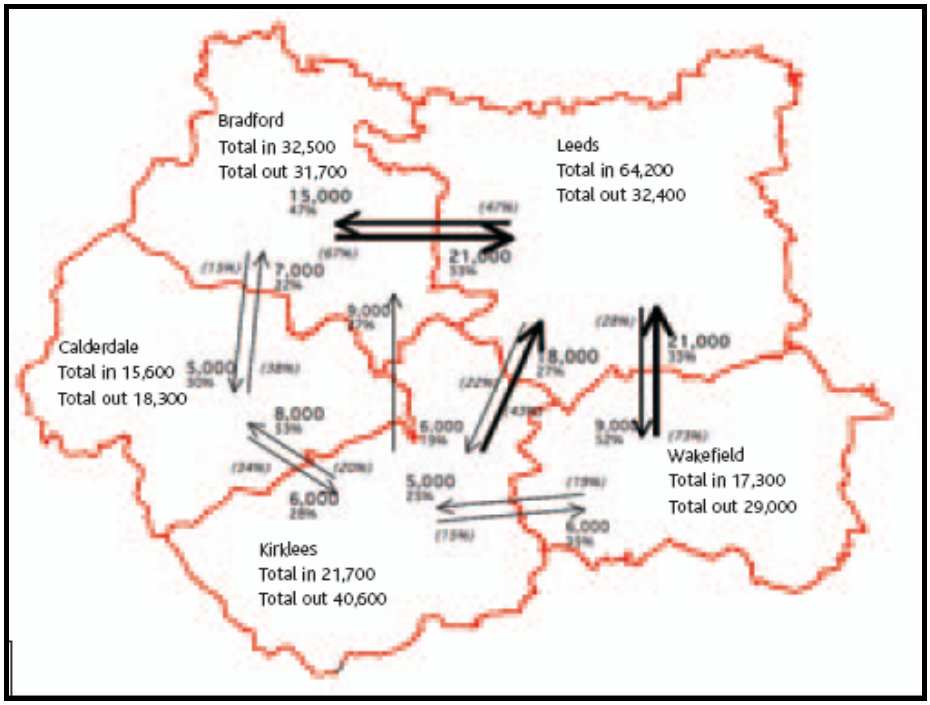


Figure 6 JOURNEY TO WORK TRIPS BETWEEN THE DISTRICTS



There has been an equal reduction in local facilities and in particular a decline in the use of public transport. Rail use has increased but there remains a considerable infrastructure problem[11].

A detailed description of the transport problems in the district is shown in appendix 2.

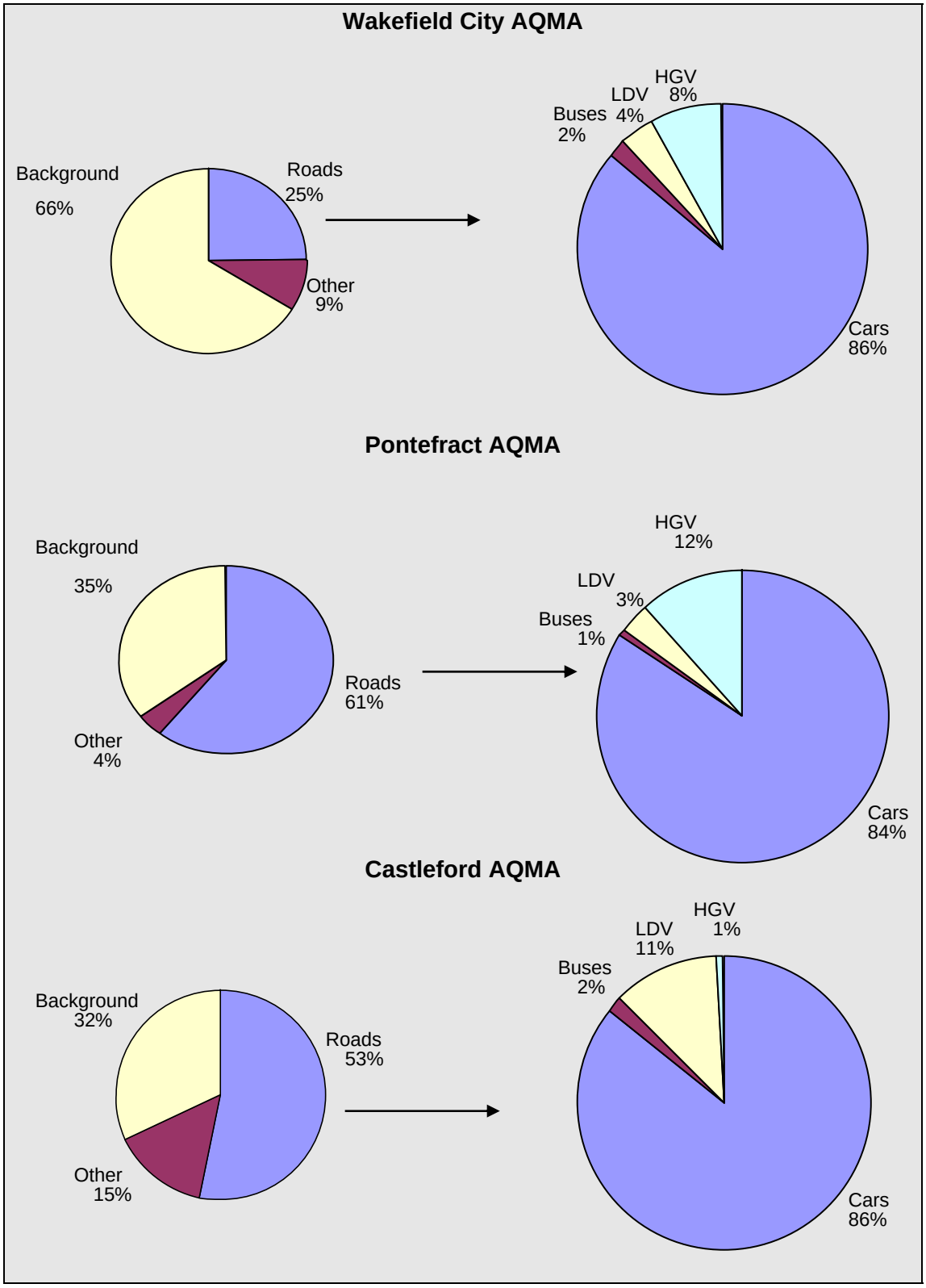
4.3 AIR QUALITY OUTCOMES

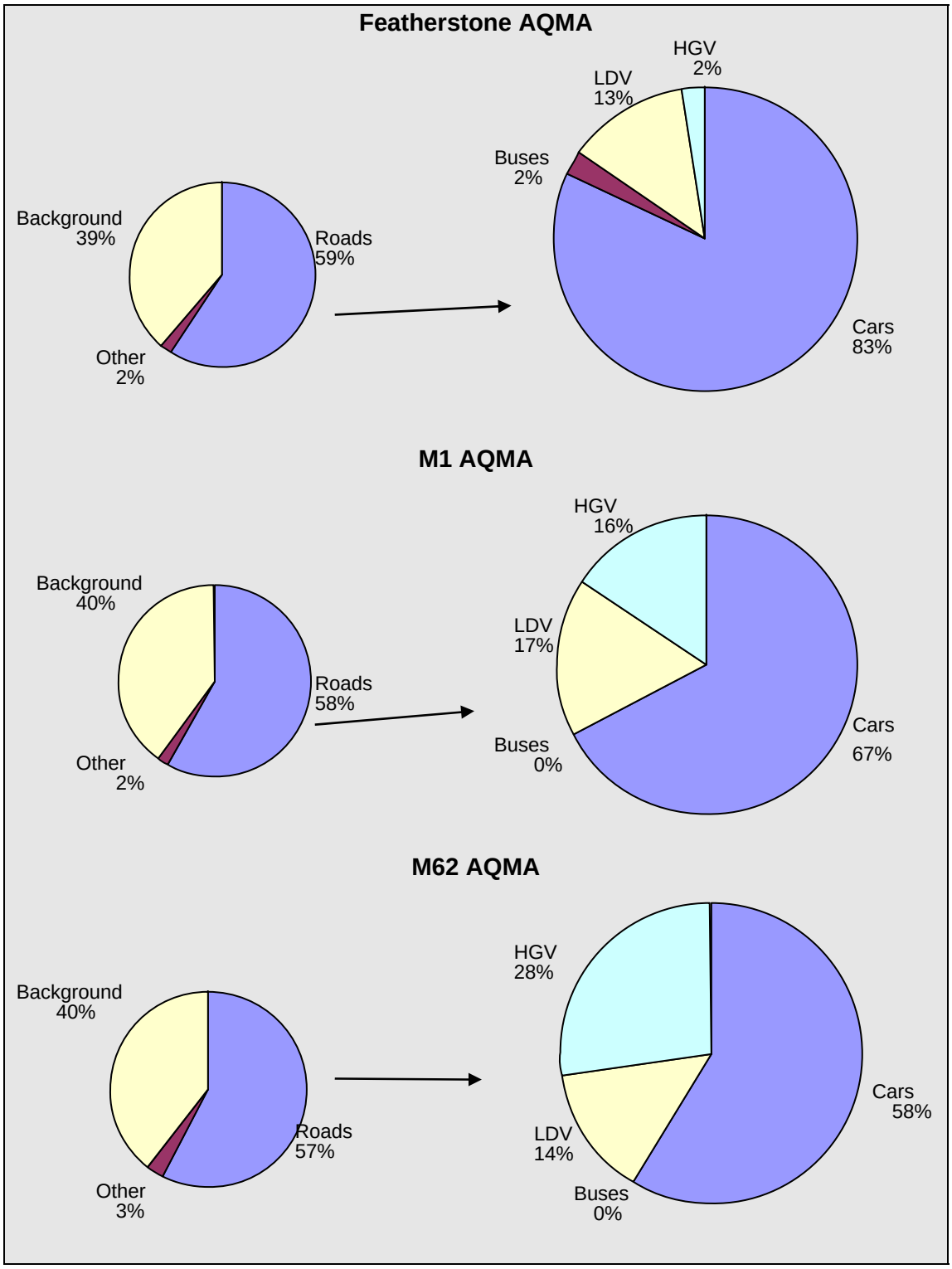
4.3.1 Source Apportionment

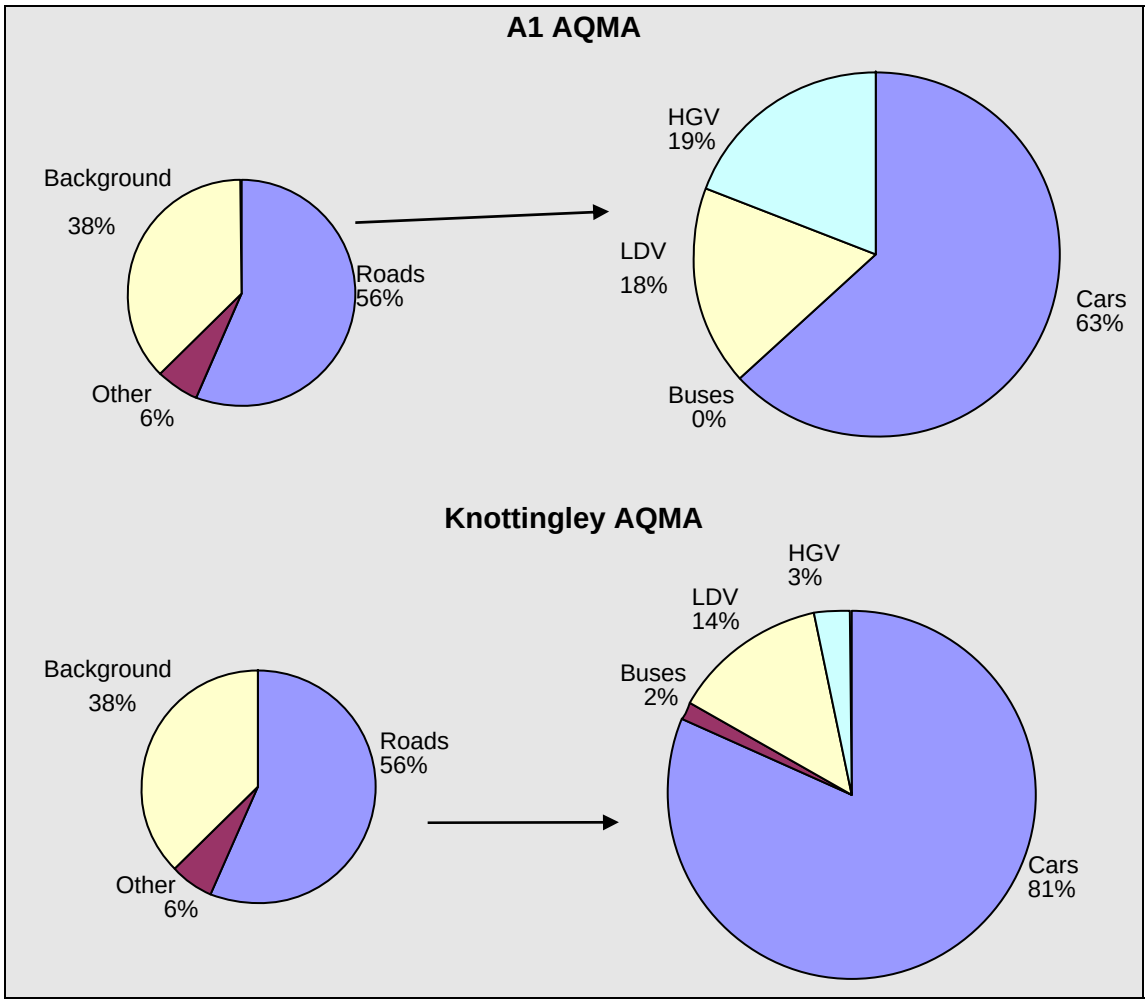
The air quality review and assessment results identified eight areas of the District that are exceeding the annual mean nitrogen dioxide objective. The Further Assessments confirmed the original outcome by undertaking further detailed monitoring and modelling and also identified the source apportionment. Road transport was seen as the greatest contributor to the exceedence of the standard. Within this, a further apportionment exercise was undertaken to identify the types of vehicle contribution: Cars, Buses, LDV, and HGV, as each has a different impact on emissions. The source apportionment outcomes are shown in figure 7.

[11] http://www.wyltp.com/LocalTransportPlan220062011/LTP2006-2011.htm

Figure 7 SOURCE APPORTIONMENT WITHIN THE AQMAS




Featherstone AQMA
Background 39%
Roads 59%
Other 2%
HGV 2%
LDV 13%
Buses 2%
Cars 83%
M1 AQMA
Background 40%
Roads 58%
Other 2%
HGV 16%
LDV 17%
Buses 0%
Cars 67%
M62 AQMA
Background 40%
Roads 57%
Other 3%
HGV 28%
LDV 14%
Buses 0%
Cars 58%



The strategic highway AQMAs (M1, M62 and A1) being the major freight transport route contain the highest proportion of HGV and LDV whereas the urban centre AQMAs have the highest proportion of cars. The public transport source remains approximately the same.

4.3.2 NOx Reductions to meet the Objective

Before identifying options available for improving the air quality, the level of improvement required to meet the relevant objective is required. The degree of improvement needed is described using an appropriate atmospheric nitrogen oxides reactions model. Guidance has been provided as to the correct procedure to establish the reductions in nitrogen oxides required[12]. Figure 8 shows the outcome for the Wakefield City AQMA.

[12] http://www.airquality.co.uk/archive/laqm/tools.php

Figure 8 NOX REDUCTIONS REQUIRED TO MEET THE OBJECTIVE (%)

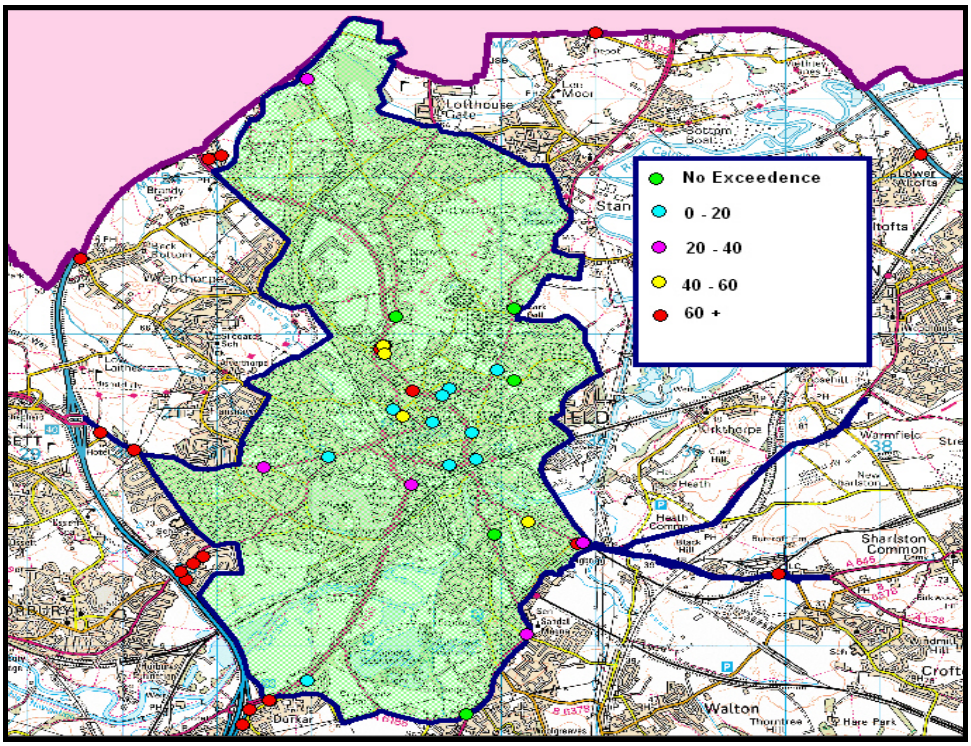


Table 5 shows the maximum NOx reduction required in each of the AQMAs.

Table 5 MAXIMUM REQUIRED NOx REDUCTIONS IN THE AQMAS (2007)

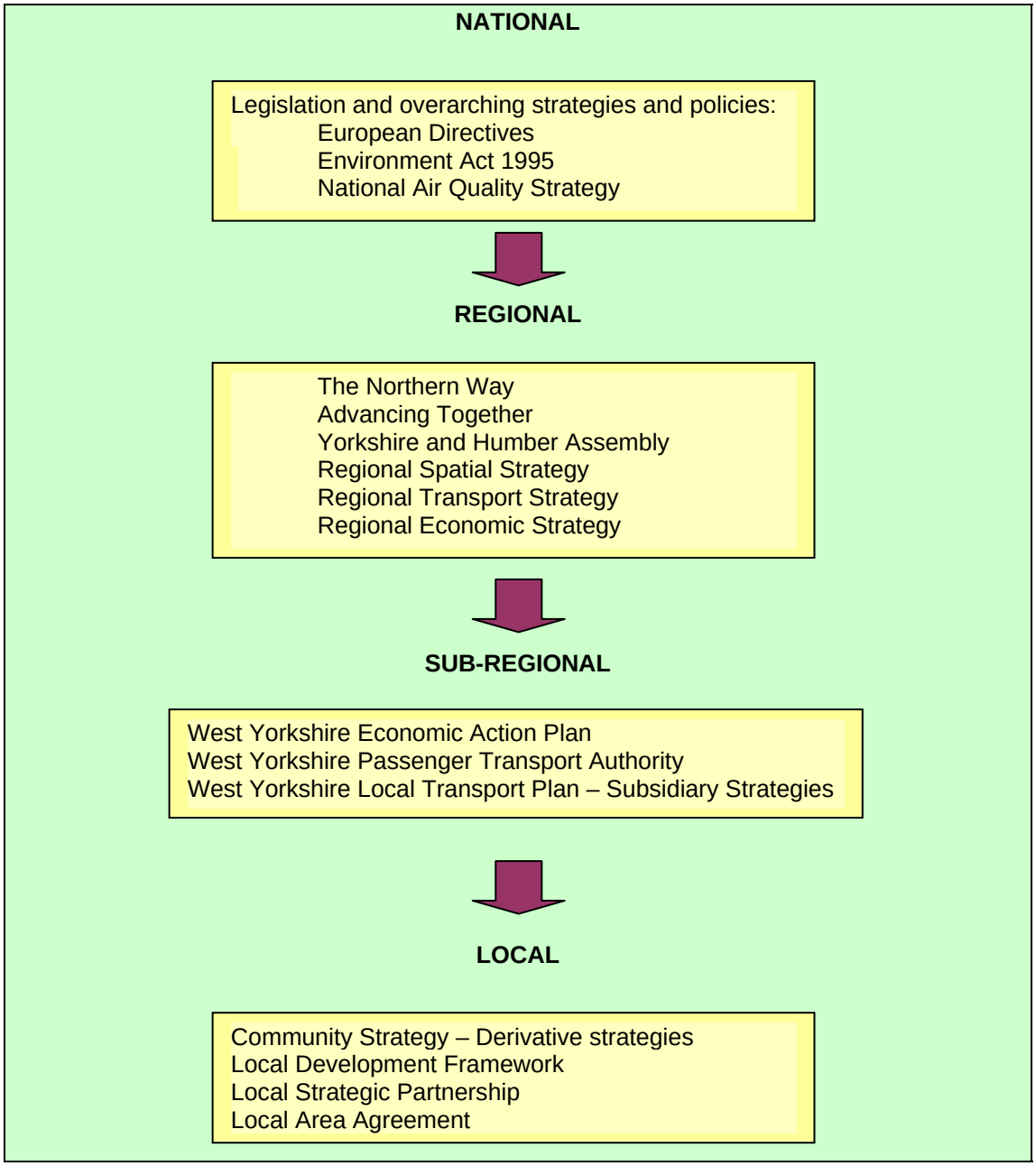
AQMA	Annual Mean NO2 (µg/m^3)	% NOx Reduction
Wakefield City	77	69
M1	64	56
M62	50	32
A1	67	60
Pontefract	53	39
Castleford	61	52
Featherstone	50	32
Knottingley	58	48

SECTION 5

STRATEGIES AND POLICIES RELEVANT TO AIR QUALITY PROBLEMS

Legislation determines the maximum pollution impact levels with strategies and policies determining the control mechanisms. A plethora of strategies and policies exist that contain reference to man made pollution problems and the need to control or minimise their impacts. A step down pattern is apparent from national level to a local community level through a number of stages (figure 9).

Figure 9 Framework of Strategy and Policy Devolution



It is well established both through the European Air Quality Framework Directive and the NAQS that local authorities are best suited to resolve locally derived air quality problems and can be a fundamental contributor to regional and national air quality problem solutions. The role of regional spatial and transport strategies becomes more important in terms of air quality problem solutions when associated with strategic highways linking towns, cities and region. However, the degree of importance given to local air quality problems and solutions provided by regional, and to some extent sub-regional strategies and policies that lack actions and timescales of achievement is questionable.

5.1 REGIONAL ECONOMIC, PLANNING AND ENVIRONMENTAL STRATEGIES

5.1.1 The Northern Way

In late 2004 the three Northern Regional Development Agencies launched the Northern Way Growth Strategy[13]. This was in response to the then Deputy Prime Minister's request to show how economic growth can accelerate to close the output gap between the North and South of England within 20 years. Key to the economic growth plan illustrated in the Northern Way is the "Strategic Direction for Transport". It sets out a number of priorities to improve specific links and change travel modes whilst still allowing vehicle movement rather than changing the way of working.

The Wakefield Way[14] is a translation of the Northern Way to show how local solutions can help meet the challenges and opportunities presented by the Northern Way. In terms of transport, the Wakefield Way contains two objectives:

- To improve accessibility to jobs and training for all those living in the District, and improve access to markets for local business;
- To improve transport systems and service within the District and beyond and reduce congestion.

[13] http://www.thenorthernway.co.uk
[14] www.wakefield.gov.uk

5.1.2 The Yorkshire and Humber Assembly

The Assembly brings together key local authority, economic, social and environmental partners to lobby and promote the region. It contains thirty-seven members including leaders of the region's twenty-two local authorities and social, economic and environmental partners[15]. It acts as the regional planning body as well as formulating economic and environmental strategies. The framework document, Advancing Together (1998), covered economic to social issues and was revised in 2006. "Advancing Together does not set out exactly what each should do - this is left to specific strategies and plans. Instead, it informs, integrates and directs strategic decision making for the region, and describes clearly what we are trying to achieve".

Thirty two indicators are included to chart the progress towards the aims and six objectives including traffic congestion figures and the number of days when levels of air pollution are moderate or high.

5.1.3 Regional Spatial Strategy

This document replaces the Regional Planning Guidance and sets out the planning and transport policy for each region for a 15-20 year period. It is said to be the "spatial expression" of Advancing Together; the Regional Economic Strategy and Transport Strategy. Overarching objectives within the spatial strategy related to transport and air quality are:

- Tackling traffic congestion and reducing transport related emissions;
- Making the best use of existing infrastructure and services;
- Minimising travel needs and maximising use of energy efficient modes; and
- Limiting pollution to what is compatible with health and biosphere capacity.

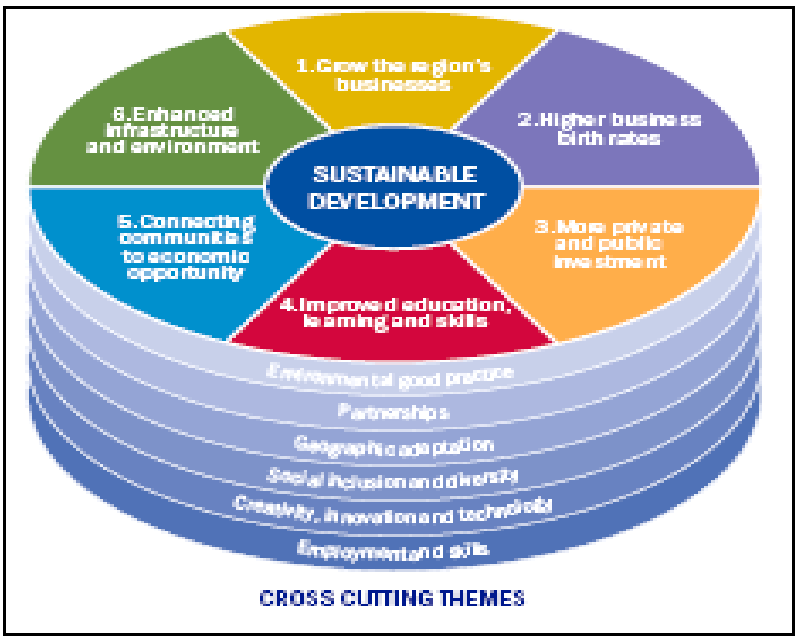
5.1.4 Economic Development

Yorkshire Forward[16], the regional development agency for Yorkshire and Humber, produced a ten year Regional Economic Strategy in 2006. An aim is that "sustainable development is central to the strategy, which aims to get the best long term outcome for people, businesses and the environment by improving economic performance, supporting social inclusion and quality of life and enhancing the environment".

[15] http://www.yhassembly.gov.uk/
[16] www.yorkshire-forward.com

It recognises that economic regeneration has the potential for environmental damage unless a positive transport and wider environmental strategy with partnerships and cross-cutting themes is undertaken (figure 10).

Figure 10 REGIONAL ECONOMIC STRATEGY - STRATEGIC AIMS



5.2 LOCAL ECONOMIC, PLANNING AND REGENERATION STRATEGIES

5.2.1 Wakefield Together and Local Area Agreement

Local Area Agreements are a new approach with Wakefield being one of the pilot authorities working under the umbrella of the Wakefield Together, which is a partnership of organisations and representatives of groups that have a stake in the future of the District.

The Agreement[17] is based on a contract between the Government and local organisations with the aim of delivering better services. This will be done by delivering services more closely to how people live their lives by dealing with the particular needs of individuals, looking at how they relate to the family they are part of and also the neighbourhoods where they live.

[17] http://www.wakefieldlsp.gov.uk

The Agreement currently includes 21 key improvements with targets to be achieved over the next 3 years. These include:-

- increasing business formation in the district
- increasing employment
- increasing educational attainment
- reducing domestic violence
- reducing homelessness

The main function of the agreement is to link community and local authority through strong dialogue to achieve local community goals within limits. Improved transport facilities and ultimately air quality is seen as a major contributor to one of the four main priorities; that of Healthier Communities.

5.2.2 The Community Strategy – "Developing Knowledge Communities"

This is a review of the original Strategy "Fast Forward – The Wakefield District Community Strategy" that identifies progress and introduces new challenges[18]. In terms of one of the original priorities "Improving our places", the review recognised that there had been growth in traffic levels across the district and a reduction in bus use below that of 1999/2000. This has been taken forward into a revised challenge of "Safer and Stronger Communities" to ensure that communities are "clean and green".

5.2.3 West Yorkshire Local Transport Plan (WYLTP2) 2006-2011

The second Plan[19] was published in March 2006 as a result of partnership working between the Passenger Transport Executive (Metro)[20]and the five constituent local authorities making up West Yorkshire. This forms a major motivating force for delivering improved air quality within West Yorkshire.

The Government and Local Transport Authorities have agreed six shared priorities for transportation:

- reducing congestion;
- improving public transport;
- promoting walking and cycling;
- improving accessibility;
- improving safety; and,
- improving air quality.

[18] http://www.wakefield.gov.uk/CouncilAndDemocracy/Policy/pub_CommunityStrategy/default.htm
[19] http://www.wyltp.com/
[20] http://www.wymetro.com/

To deliver these priorities WYLTP has developed five transport objectives "to develop and maintain an integrated transport system that supports economic growth in a safe and sustainable way and enhances the overall quality of life for the people of West Yorkshire". These being:

Delivering Accessibility
"to improve access to jobs, education and other key services for everyone";

Tackling Congestion
"to reduce delays to the movement of people and goods";

Safer Roads
"to improve safety for all highway users";

Air Quality and vehicle emissions
"to limit transport emissions of air pollutants, greenhouse gases and noise, and to mitigate and adapt to the effects of climate change";

Effective Asset Management
"to improve the condition of the transport infrastructure".

Within the air quality objective there are three specific approaches to tackle poor air quality:

AQ1 – traffic demand management measures, focusing on commuter journeys;
AQ2 – encouraging more sustainable travel; and,
AQ3 – actions to reduce vehicle emissions including CO_2 and noise.

5.2.4 The Wakefield Transport Strategy

One of the progress milestones in the Wakefield Way is the production of a local transport strategy. This document[21] has one overarching objective:

"To provide a coherent framework for the development of transport improvements across Wakefield for the benefit of all residents".

Within this context three levels of geographical objectives are introduced to meet the overarching aim of "accessibility through connectivity": National; Regional and Sub-Regional, meeting the needs of each level of strategy above.

[21] http://www.wakefield.gov.uk/TransportAndTravel/TransportStrategy/default.htm

National Objectives

"to improve access between Wakefield District and neighbouring city regions (beyond the Leeds City Region, figure 3), London, airports and ports".

Regional Objectives

"To improve access between Wakefield District and the Leeds City Region"

Sub-Regional Objectives

"To address current and potential transport problems in the Wakefield District and prioritise solutions for those schemes according to likely impact".

5.2.5 Framework for Local Planning

The existing land use plan is the Wakefield Unitary Development Plan (UDP). It is to be replaced by the Local Development Framework (LDF) in line with the Planning and Compulsory Purchase Act 2004. It sets out policies and proposals for the development and use of land within Wakefield up to 2021. The LDF will comprise a portfolio of separate Local Development Documents each of which can be prepared and reviewed independently. Some documents will be part of the statutory development plan (known as Development Plan Documents) whilst others will be non-statutory Supplementary Planning Documents, including site development briefs and guidance on topics such as affordable housing, replacing current Supplementary Planning Guidance.

The Core Strategy recognises local air quality management as a major concern and includes an environmental impact policy (CS35) that:

"The Council will work with its partners, particularly the Environment Agency, to ensure that development proposals do not give rise to an unacceptable level of risk from the operation of natural forces and human activity for existing and future occupants, the wider community and the environment. Proposals must take particular account of the need to (inter alia) avoid or mitigate the effects of pollution from noise, lighting, vibration, odour, emissions, dust and hazardous activities".

The proposed Development Control Policy includes specific pollution control and air quality policies for the protection of existing good air quality and aid to measures for improving areas of poor air quality (EIC 5 and EIC 6).

Policy EIC 5

Pollution Control

Development proposals which are likely to cause pollution or are likely to be exposed to likely sources of pollution will not be permitted unless conditions and/or planning obligations can be used to prevent pollution or minimise emissions to a satisfactorily level that protects health, environmental quality and amenity.

Policy EIC 6

Air Quality

Development that would result in an increase in pollution levels to the detriment of health, environmental quality and amenity will not be permitted.

In determining proposals particular consideration will be given to:

i. the likelihood of emissions which may have an unacceptable affect on the amenity of the local area;
ii. where there is an identified risk that public health may be adversely affected;
iii. where there is a possibility that any proposed development will lead to a breach of national air quality objectives.

Where the Council considers that an Air Quality Management Area may be affected by a development proposal, it will require applicants to submit an appropriate impact assessment with the planning application, which should be consistent with the aims and objectives of the Council's Air Quality Action Plan and include mitigation measures where appropriate. Mitigation measures will be secured through planning conditions and/or legal agreements where appropriate.

5.2.6 Planning Guidance

As an aid to improving the local planning and air quality assessment liaison and consultation process, a supplementary planning guidance document was published in 2004 and supplemented by training sessions. It provided both a mechanism for the establishment of whether or not an individual application required a formal air quality assessment and the actions required to achieve a clearer understanding of the air quality impact.

The changes in the planning regime detailed above, required an update to the format for the supplementary guidance documents In addition, changes have been made to planning guidance[22] which necessitated a revision of the planning guidance. A revised document is currently undergoing a review process within the planning authority before being formally published[23].

[22] NSCA,"Development Control:Planning for Air Quality" 2006
[23] WMDC. "Air Quality and Land-Use Planning: Development Control Advice & Procedure 2008".

5.2.7 Planning Obligations and Air Quality

The Town and Country Planning Act 1990 Section 106 (as amended by the Planning Compensation Act 1991 Section 12) sets the legal basis for a local planning authority and a developer to enter into a legal agreement to provide infrastructure and services on or off development sites where this could not normally be achieved by the use of planning conditions. These obligations are intended to make acceptable development which would otherwise be unacceptable and can either prescribe the nature of development, secure a contribution from a developer to compensate for loss from development or else mitigate impacts from a development.

Where development in areas of poor air quality is proposed, the overall benefit of the development must be balanced against the specific harm, in air quality exposure terms, of locating that particular development at that particular site. Planning obligation can be used to aid overall air quality improvement within the areas of poor air quality by supporting a range of measures identified in an air quality action plan. These are likely to include travel plans, improved public transport, car share clubs etc.

A draft supplementary planning document has been produced under the auspices of the LDF formalising the planning authority's policy on developer contributions as a planning obligation[24]. Air quality is included as one of the obligation matters that will require developer contributions. The threshold for obligation is determined through the need for a formal air quality assessment and the degree of deterioration in air quality. The types of contribution are described:

[24] WMDC, "Draft Developer Contributions Supplementary Planning Document" http://www.wakefield.gov.uk/Planning/SpatialPolicy/pub_LDF/default.htm

5.12.3 Basis of Calculation

If such developments result in a deterioration of air quality then the developer will be expected to implement wherever possible mitigation measures and/ or planning obligations to the satisfaction of the local planning authority.

Calculations will be scheme specific but could include:

- Promotion of public transport and other suitable transport modes
- Reallocation of road space e.g. bus and cycle lanes
- Travel Plans
- Promoting more sustainable fuel use
- Car Clubs/share
- Emissions testing
- Encouraging cleaner technologies.

5.2.8 Regeneration and Urban Renaissance

Yorkshire Forward introduced the "Urban Renaissance"approach which seeks to concentrate development in centres, helping make good public transport a viable option and to produce an attractive environment for walking and cycling activities. An initial urban renaissance vision for Wakefield District was published in 2002 with a second report in 2005 aimed to define how the vision might be realised. Three priority regeneration areas; Wakefield City; The Five Towns and South East were highlighted. Considerable regeneration within these areas is now underway giving the opportunity to include measures that will enable transport and air quality improvements.

5.2.8.1 WAKEFIELD CITY ACTION PLAN

The Central Wakefield Area Action Plan[25] is one of the Development Plan Documents (DPD) under the LDF framework. The Plan is designed to:

- "Define the vision and objectives for central Wakefield to 2021;
- Set out proposals and policies to achieve the vision and develop the spatial development strategy set out in the Core Strategy DPD;
- Explain how these policies will be monitored and implemented; and
- Include a proposals map showing land allocations and designations".

[25] http://www.wakefield.gov.uk/Planning/Regeneration/default.htm

The Plan includes a number of spatial objectives to achieve the vision for Wakefield and includes seeking to:

> "Reduce the levels of traffic within the city centre of Wakefield and achieve equality of access to the benefit of all users by making central Wakefield safer and more pedestrian friendly and promoting public transport opportunities".

Air quality is specifically identified as a transport issue:

> "4.10 The city centre is an area of concern where air pollution from road traffic and development activity has led to the declaration of an Air Quality Management Area (AQMA). Measures to reduce the adverse effects of congestion within the city centre are therefore essential".

Within this context, the Plan includes details of the strategy to deal with the congestion and associated air problems via specific measures (figure 11):

- Creation/completion of the Emerald Ring (Wakefield's inner ring road);
- Implementation of the northern gyratory system;
- Restrictions on traffic and bus priority/improved public transport;
- Improved provision for pedestrians and cyclists;
- Bus priority measures such as bus lanes along the major routes into the city centre;
- Shuttle bus services to directly serve interchange nodes such as railway stations and the bus station;
- Park and ride schemes – this will allow people to park their cars at a location outside the city centre and travel for the rest of their journey on the bus;
- A new railway station at Westgate;
- Increase short stay car parking and reduce long stay car parking within the city centre;

The infrastructure elements of the measures are shown in figure 12.

Figure 11 CENTRAL WAKEFIELD AREA ACTION PLAN PROPOSALS

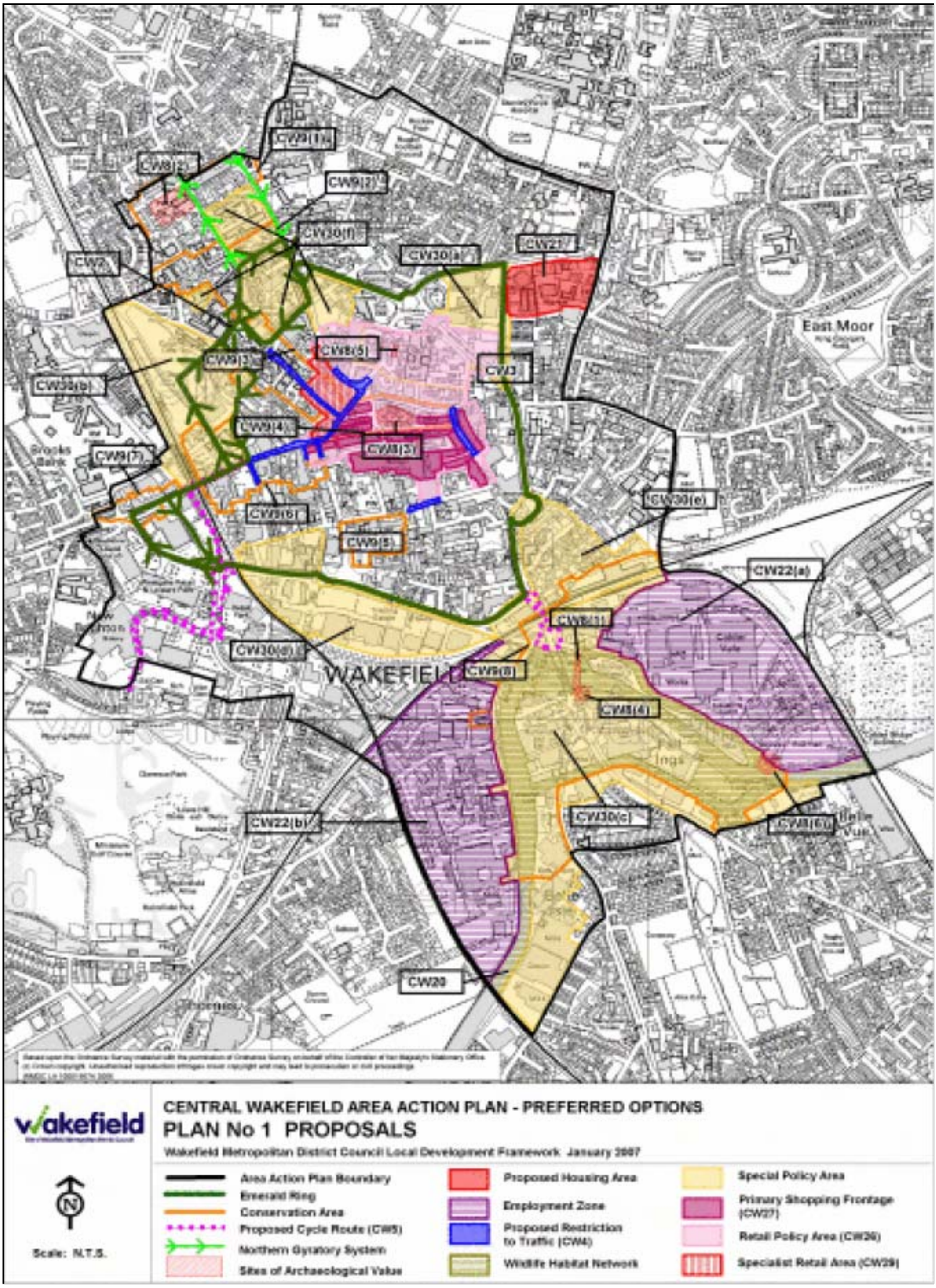
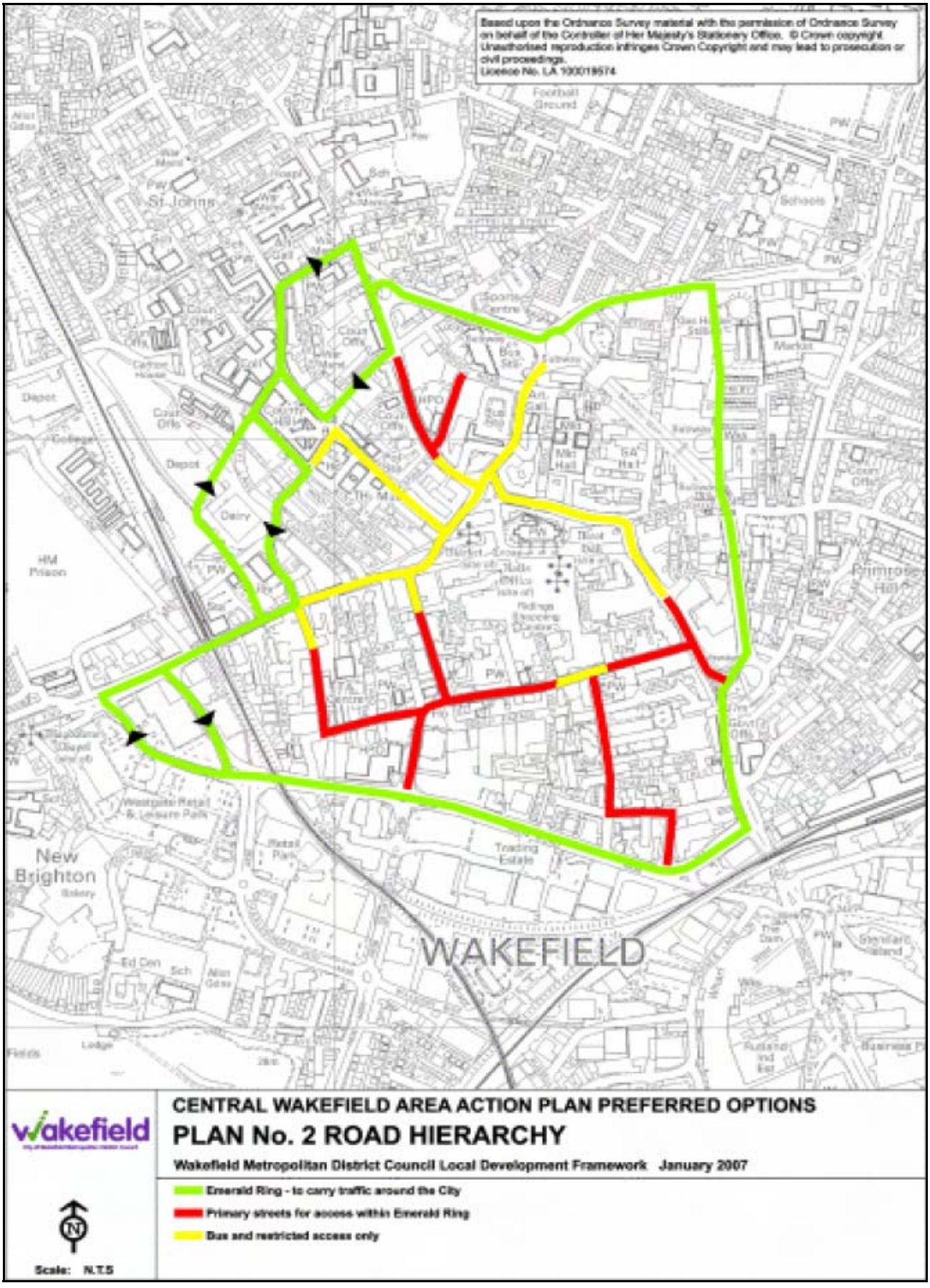


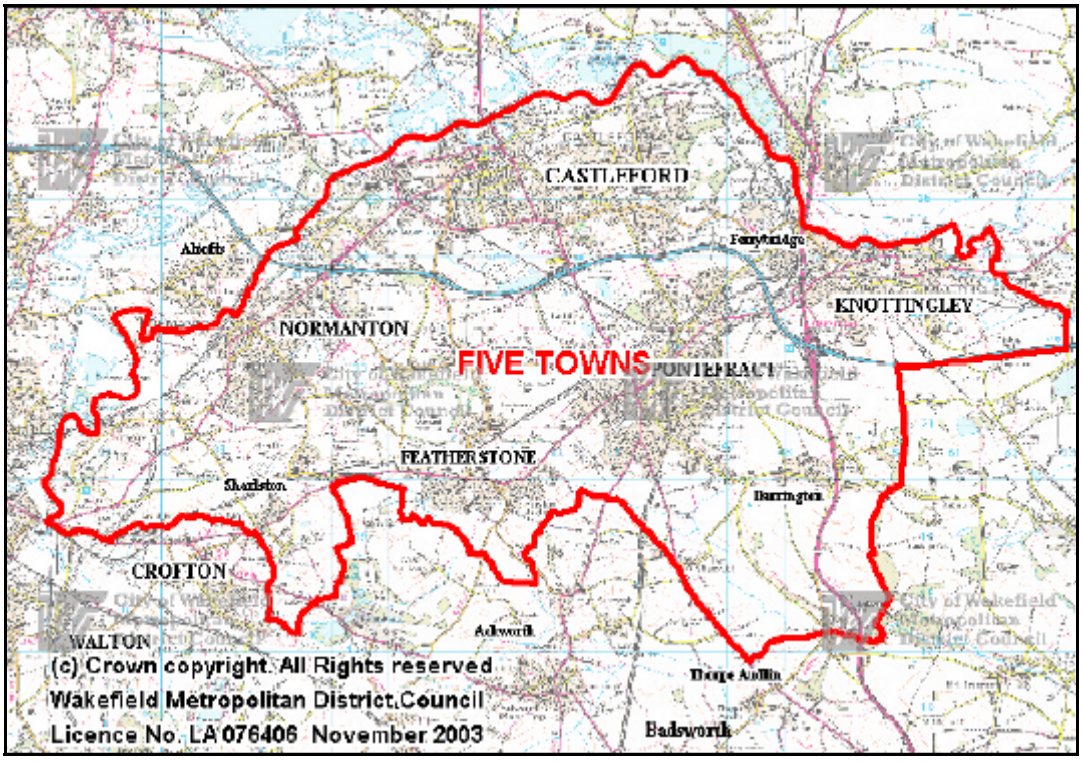
Figure 12 CENTRAL WAKEFIELD AREA ACTION PLAN ROAD HIERARCHY



5.2.8.2 FIVE TOWNS REGENERATION

Each of the towns of Castleford, Featherstone, Knottingley, Normanton and Pontefract has distinct physical characteristics, population size and a tradition of independence (figure 13). However, culturally, socially, historically, economically they share many characteristics due to the dominance of coal mining and other heavy industry.

Figure 13 FIVE TOWNS LOCATION



Key themes and objectives published in 2005[26] are designed to "expand and diversify town centres to bring them back into use, make them more accessible to outlying neighbourhoods and improve public transport links between towns".

A number of individual town projects are in various stages of design, construction and implementation[27]. These are shown in table 6.

[26] Five Towns Strategic Development Framework, Yorkshire forward 2005
[27] http://www.wakefield.gov.uk/Planning/Regeneration/FiveTowns/default.htm

Table 6 FIVE TOWNS REGENERATION PROJECTS

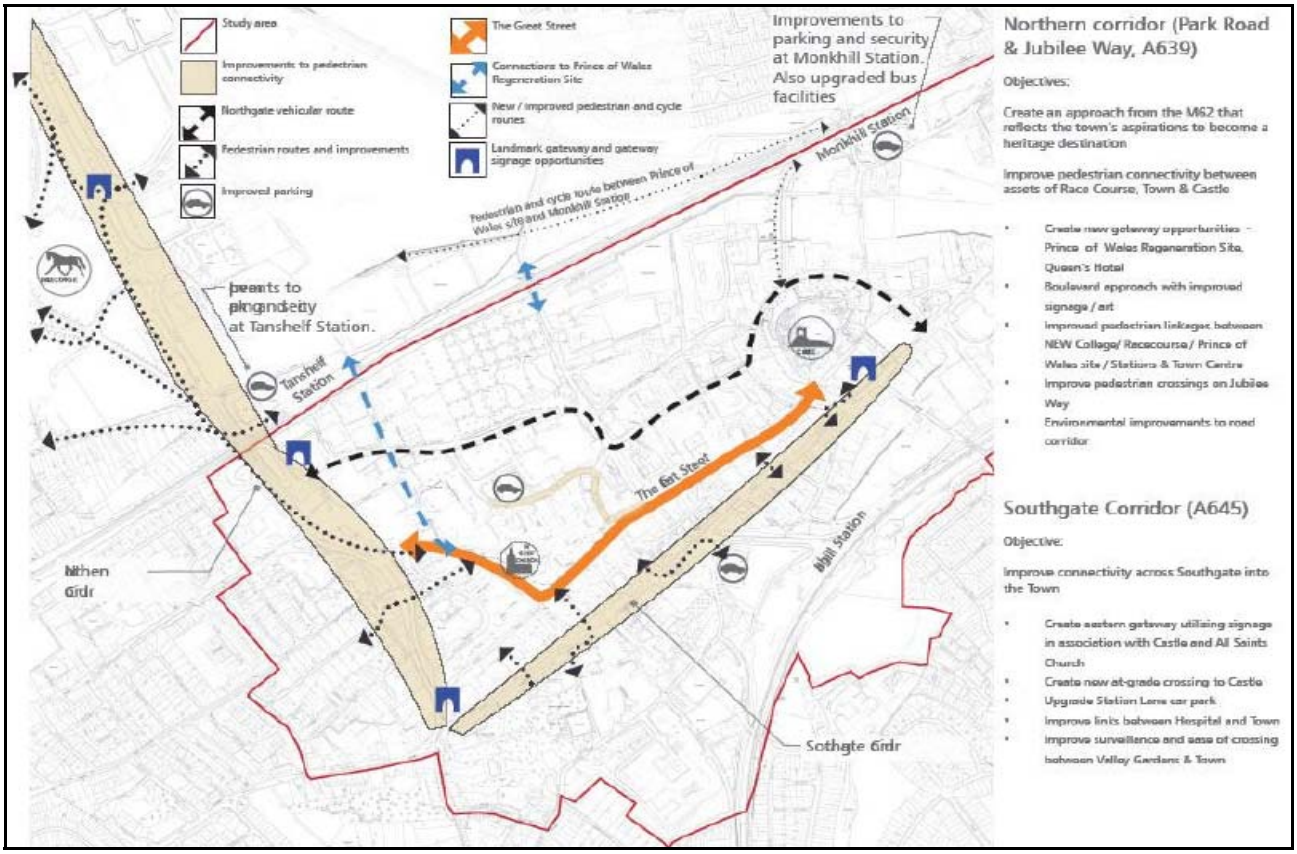
TOWN	PROJECT
Castleford	Carlton Square Former C6 Solutions Site Bus and Rail Interchange Library, Museum and Gallery Channel 4 Project
Pontefract	Castle Development Central Area Masterplan Town Hall Prince of Wales site
Featherstone	Central Area Masterplan

The Castleford bus and rail interchange development is one of a number of significant measures to influence the local transport network and consequently the local air quality. The development consists of combing both bus and rail stations and improving access to and from the site (figure 14).

Figure 14 CASTLEFORD INTERCHANGE

The Pontefract Central Area Masterplan sets out a series of recommendations to bring out the town's assets and to tackle run down areas. The transport element includes a range of transport, access and movement recommendations summarised in figure 15.

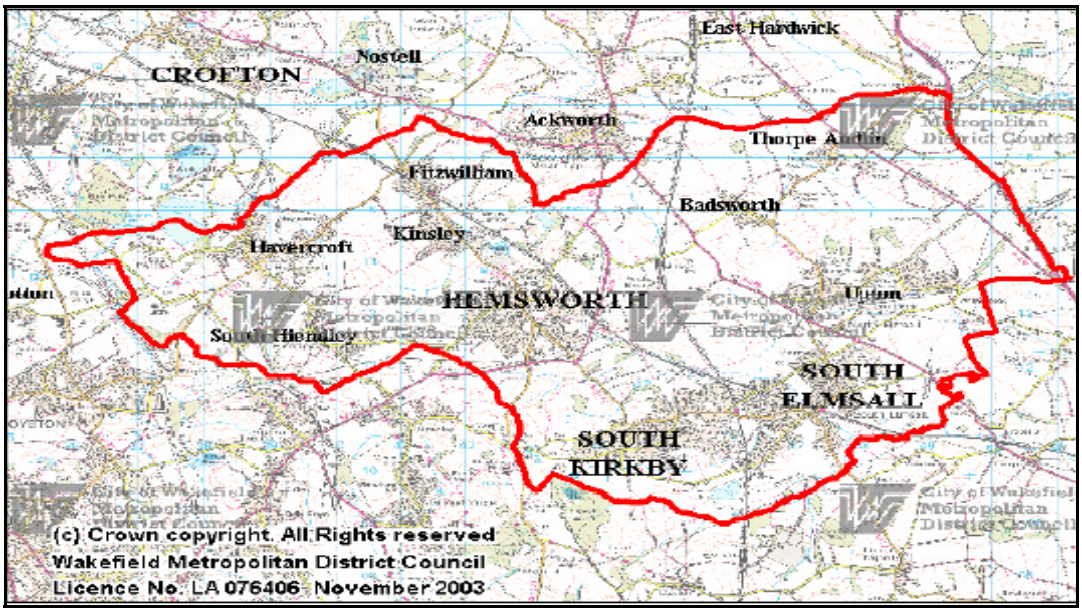
Figure 15 PONTEFRACT CENTRAL PLAN TRANSPORT RECOMMENDATIONS



5.2.8.3 SOUTH EAST REGENERATION

The South East of the district includes the towns of Hemsworth, South Kirkby and South Elmsall (figure 16).

Figure 16 SOUTH EAST REGENERATION AREA

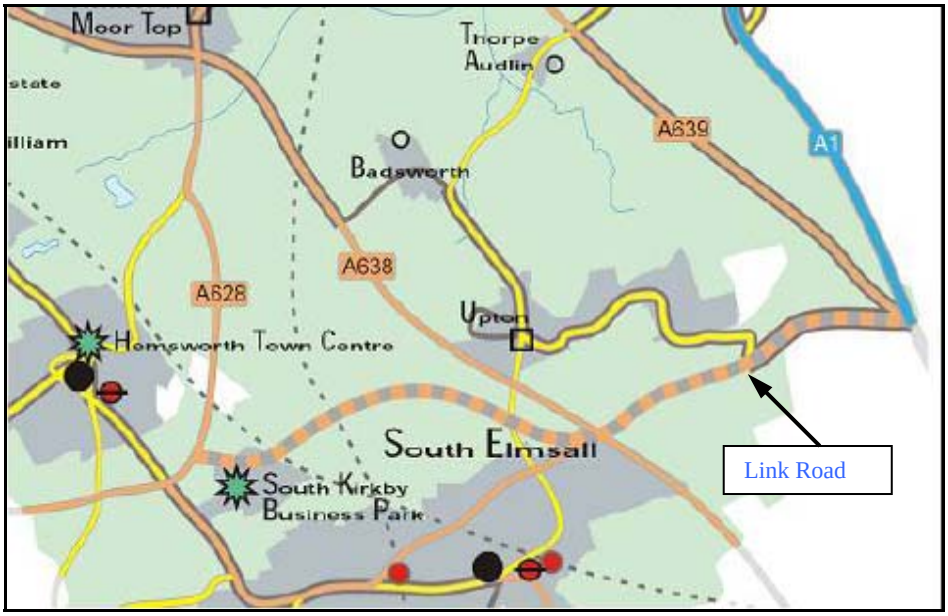


The area has links with Doncaster, Barnsley, Leeds and Wakefield for jobs and services and much of the urban fabric is old and in need of refurbishment. New investment through the Urban Renaissance programme is being aimed at specific developments with the aim of regenerating the area. Current projects include:

- Hemsworth A1 link road development;
- Frickley Colliery – restoration and development;
- Langthwaite Business Park – further development
- South Kirkby Business Park[28]

The recently opened Hemsworth to the A1 link road (figure 17) will provide the main impetus for further economic development on the other locations.

Figure 17 HEMSWORTH – A1 LINK ROAD



Transport and air quality impact assessments were undertaken as part of the development schemes.

[28] http://www.wakefield.gov.uk/Planning/Regeneration/SouthEast/default.htm

SECTION 6

MEASURES TO DELIVER AIR QUALITY IMPROVEMENTS

The main force behind transport measures that will impact on local air quality is that of the WYLTP (section 5.2.3) and the Highways Agency proposals for the strategic roads. Other regional funded bodies that can contribute funds locally will also impact on the local air quality but it is dependent on the specific project.

6.1 MEASURE ASSESSMENT METHODOLOGY

For each identified measure an assessment is required of cost effectiveness, feasibility, timescales for implementation, responsibilities and quantification of the likely impact on improving local air quality.

6.1.1 Air Quality Impact

The impacts have been classified as “low”, “medium” and “high”. For each measure, or package of measures, the expected reduction in annual mean nitrogen dioxide concentrations has been evaluated. Pending the outcome of further detailed analysis of the strategic transport model within the WYLTP2, the expected air quality impacts are based largely on professional judgement, drawing wherever possible on experience gained from other studies. The following classification has been used:

LOW: imperceptible, where improvements are unlikely to be detected within the uncertainties of monitoring and modelling;

MEDIUM: perceptible, where an improvement of up to 2µg/m^3 is shown by modelling scenarios. Improvement is not likely to be shown by monitoring due to confounding factors of the weather;

HIGH: significant where an improvement of more than 2µg/m^3 can be clearly demonstrated from modelling or monitoring. A significant improvement is most likely to be delivered by a package of options rather than a single intervention.

6.1.2 Cost

Any effective measure is dependent on securing a sufficient and consistent level of funding to both deliver the programme and support additional staffing. A ranking is made according to the cost and expected air quality improvement; "**Low**" cost is taken to be <£50K, "**Medium**" cost is £50 - £150K, "**High**" cost is £150k - £2million and "**Very High**" cost is over £2million. Where funding has been already estimated and submitted for provision, the actual figure is included.

6.2.3 Feasibility

Feasibility of individual measures is not straightforward to quantify. The following factors have been taken into consideration:

- Alignment with other regional, sub-regional and local strategies, policies or plans
- Wider social, environmental or economic impacts
- Stakeholder acceptance/ political feasibility
- Availability of enabling legislation
- Funding availability.

The descriptors are designated positive and negative attributes following the assessment. In addition, identified measures have undergone a simple prioritisation process which assigns a score to each on the basis of;

- The number of issues/problems the intervention addresses;
- The number of objectives (accessibility, environment, congestion, public transport and safety) the intervention helps to meet.

In arriving at the feasibility `scores' there is inevitably some element of professional judgement included.

6.2.4 Timescale

Measures have been phased as short, medium or longer term:

- Within the next 5 years (LTP2) for **Short Term**;
- 5 – 10 years for the **Medium Term**; and
- Beyond 10 years for the **Longer Term.**

The phasing accords with the lead time for delivery rather than the timetable for action as work on most of the medium and longer term interventions will need to begin in the short tem to enable them to be delivered.

6.2 STRATEGIC HIGHWAY MEASURES

The Highways Agency (HA) is the network operator for England's network of trunk roads, particularly the motorways. It is tasked by the Secretary of State for Transport to operate, maintain and improve the network of trunk roads and motorways and is therefore responsible for actions on these roads to improve air quality. The Agency has set out its role in relation to local air quality management[29] which includes:

- Contributing to strategic planning;
- Road improvements;
- Integrating transport and encouraging sustainable travel;
- Providing better information for improved operation; and
- Working with local authorities to deliver the NAQS

The document was produced to describe the role of the Highways Agency and to identify the measures it would undertake to resolve poor air quality.

In the context of air quality, the Agency Business Plan for 2006-07 states that the HA is "…giving priority attention to those areas which are forecast to have compliance issues with the European Directive [Air Quality directive]…Where these coincide with planned improvements, the agency will not progress a targeted programme of improvement which would produce a new compliance problem or make an existing forecast compliance problem worse".

The historic congestion problems on the M1, M62 and A1 were the prime reason for the HA establishing a number of investigations to resolve the problem. This in conjunction with the implementation of the European directive and local air quality management objectives necessitated the South and West Yorkshire Multi Modal Study (SWYMMS) in 2002 and the subsequent South and West Yorkshire Making Better Use Study (SWMBUS), following the Secretary of State for Transports' response.

[29] http://www.highways.gov.uk/knowledge/792.aspx

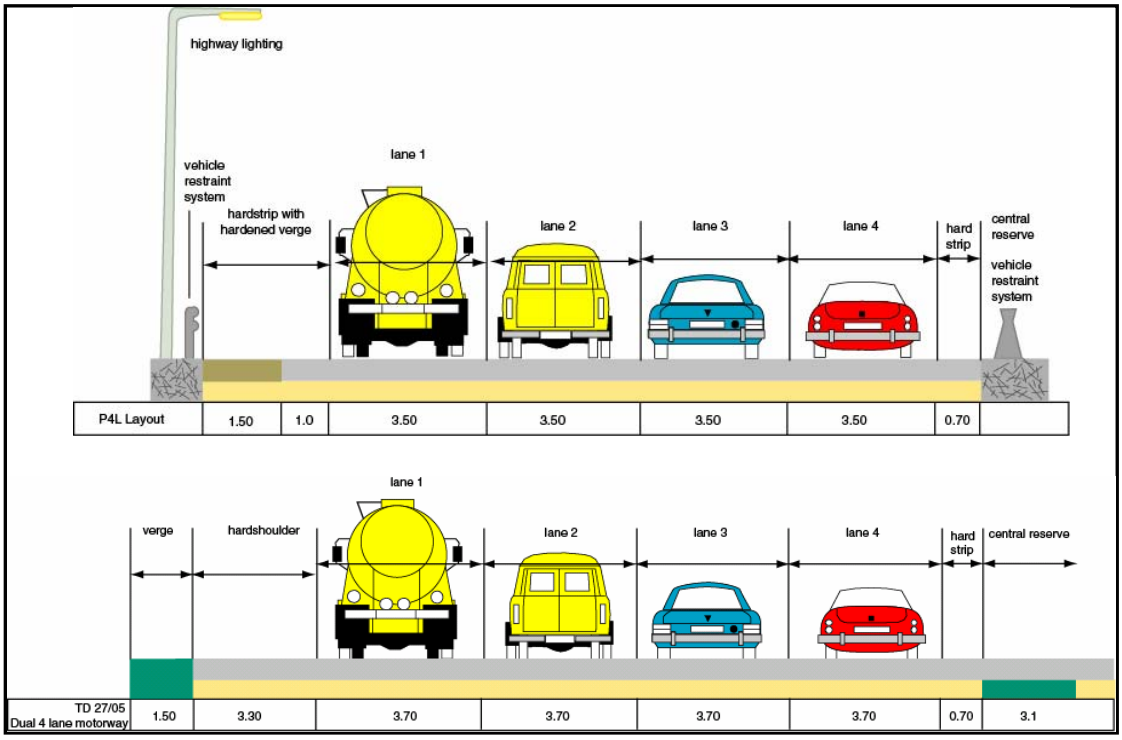
The studies resulted in recommending measures to include:

- Road widening to provide extra capacity;
- Additional congestion reduction measures; and
- Demand management measures.

6.2.1 Road Widening

Approved funding has been given for the widening of the M1 (junctions 30 to 41) and M62 (junctions 25 to 28). The widening includes a combination of standard dual four lane and Innovative Compact Motorway which has slightly narrower lanes and no hard shoulder (figure 18). Additional safety measures include emergency refuge areas at 1km intervals and closed circuit television on gantries at regular intervals.

Figure 18 ROAD WIDENING OPTIONS FOR THE M1 AND M62



On January 15th 2009 the Secretary of State for Transport announced that the road proposals were being revised following further outcomes of the "hard shoulder" research programme undertaken on the M42. For the M1 in south and west Yorkshire, it included proposals for Managed Motorway (hard shoulder running) for Junctions 32 to 35A (Sheffield) and Junctions 39 to 42 (Wakefield).

6.2.2 Congestion Reduction Measures

Options include:

- Priority lanes for heavy diesel vehicles and high occupancy vehicles;
- Active traffic management (ATM) and intelligent demand management (IDM). ATM involves mandatory speed control using variable speed limits displayed on gantries at 1km intervals. IDM manages demand through access control;

- Ramp metering on motorway slip roads. This includes traffic lights on slip roads to control access to the motorway during congested periods with sensors to prevent build up of traffic on the adjacent road network.

- Providing alternative freight transportation options; and
- Variable or permanent speed limit reductions. This can be part of ATM or an independent measure which is used to ease the flow and reduce congestion.

6.2.3 Demand Reduction Measures

Identified options include:

- Car share/park and ride interchanges at junctions. Park and ride schemes use dedicated parking facilities to encourage modal transfer to public transport. Park and share schemes involve parking facilities at strategic locations to encourage car sharing. Both schemes would be coordinated by both HA and local authorities.

- National public education and marketing campaign to increase awareness of the impact on air quality of private car use.
- Promoting using public transport.
- Influencing local planning development control policies to influence modal shift.

HA is a statutory consultee for planning applications and may refuse applications that will increase traffic flows on the roads it manages.

- Permanent heavy diesel vehicle lanes. Making priority lanes for HDV permanent rather than at peak flow periods.

6.2.4 Measure Assessment

An extensive modelling and monitoring exercise was designed to investigate the impact of the mitigation measures and proposals in 2007. The modelling scenarios include a base year description to identify:

- the geographical extent of exceedences of the air quality objectives;
- the magnitude of current exceedences; and
- the source apportionment of the contribution of road traffic.

The impact scenarios include, a future `do-minimum' scenario for the opening year of the scheme that includes no mitigation measures as well as a `do something' that includes a combination of mitigation measures.

A significance assessment of the impacts relating quantified levels of impact is included which relates to the approach in section 5.1.1 Air quality impact methodology.

It is proposed that any final decisions regarding the measures to be adopted will also consider the wider social, economic and health factors including public perception and cost effectiveness.

CONSULTATION AND LIAISON

It is imperative that there is a good degree of understanding between the HA and the relevant local authorities through which the strategic highways runs. A formal process for local authority liaison was produced,[30] once an air quality action plan is published, and relies heavily on the relationship with the relevant route manager. Unfortunately this system has not functioned effectively in West Yorkshire due to a number of difficulties in personnel changes and structural moves.

6.2.5 Strategic Highway Measure Assessment

In the absence of actual output from the HA impact assessments it is difficult to provide a detailed assessment of the likely feasibility and air quality impact.

[30] http://www.highways.gov.uk/knowledge/792.aspx

However, using professional judgment and the original reasoning for the proposed measures it is possible to provide a general opinion, below.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Road widening	Medium	Very High	Low positive	Low Positive	Medium Positive	Medium
Congestion	Medium	High	Low Positive	Medium Positive	Medium Positive	Short
Demand	Medium	Medium	Medium Positive	Medium Positive	Medium Positive	Short

6.2.6 Measure Actions

We will improve our relationship with the Highways Agency so that a closer understanding and appreciation of working arrangements and operations is achieved. This will be achieved through the West Yorkshire Transport Emissions Group (WYTEG) of the WYLTP and by utilising more fully the written procedures for Action Plan consultation.

We will strongly support the non-infrastructure measures identified by the Highways Agency that require local authority commitment where positive outcomes for the district are shown from the impact assessments.

6.3 WEST YORKSHIRE LOCAL TRANSPORT PLAN MEASURES

The structure described in section 5.2.3 of shared priorities and five transport objectives has been used to formulate measures to develop and maintain the integrated transport system. Of the five objectives (Accessibility, Tackling Congestion, Safer Roads, Air Quality and Vehicle Emissions and Effective Asset Management), the Air Quality and Congestion objectives form the basis for measures that will directly impact on improving local air quality. There are links to the other objectives but not as dominant in their output. Within these objectives are specific strategic elements forming the structure of the improvement measures:

Tackling Congestion

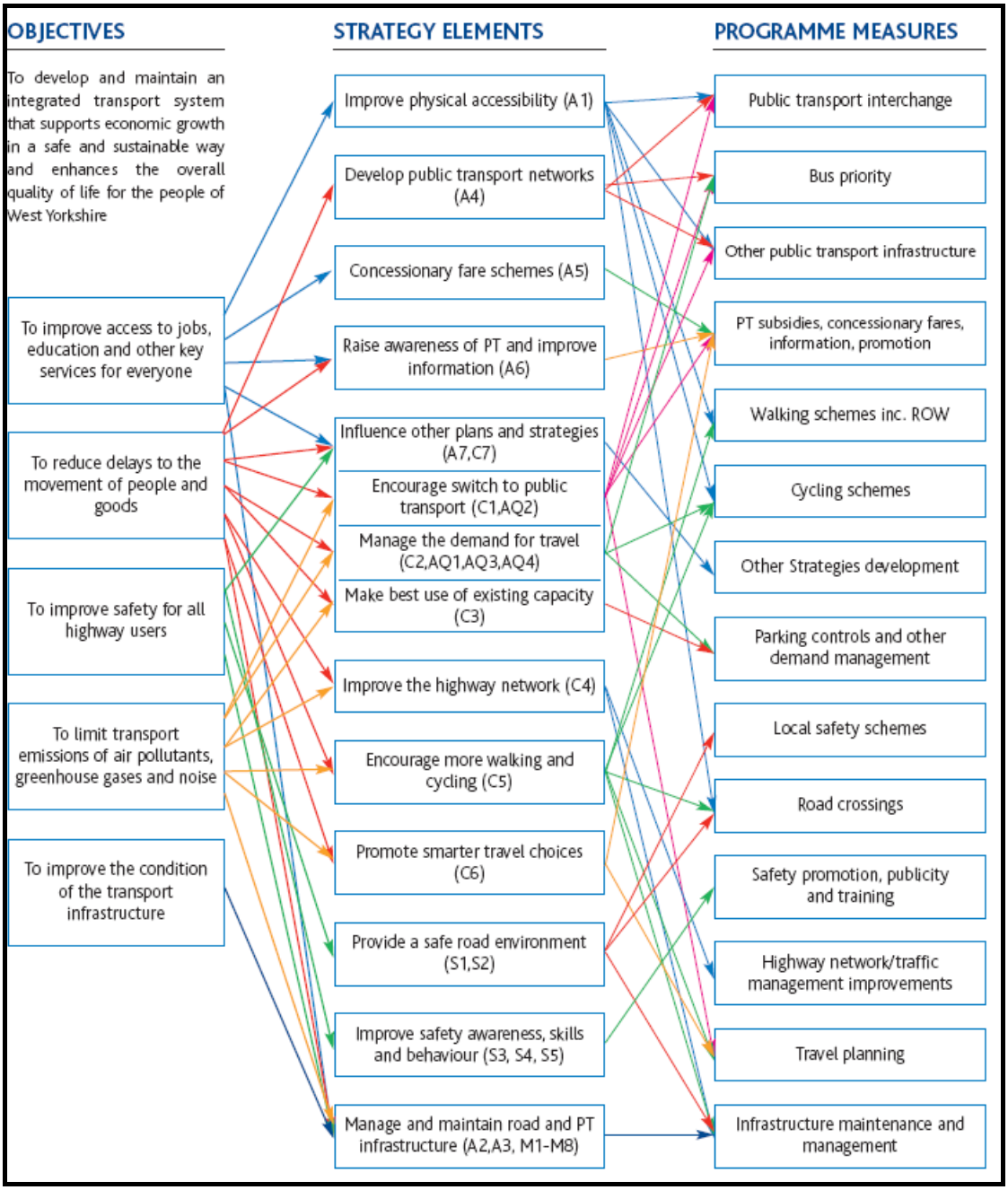
C1 Encourage modal switch to public transport .
C2 Manage the demand for travel.
C3 Make the best use of the existing capacity.
C4 Improve the highway network.
C5 Encourage more cycling and walking.
C6 Promote smarter choices.
C7 Promote sustainable land use planning policies and practices.

Better Air Quality

AQ1 Traffic demand management measures, focusing on commuter journeys.
AQ2 Encouraging more sustainable travel,
AQ3 Actions to reduce vehicle emissions.
AQ4 Measures to adapt to the effects of climate change.

The full links between objectives, strategic elements and measures is shown in figure 19.

Figure 19 WYLTP STUCTURE LINKAGE



The specific objective links are shown in figures 20 and 21.

Figure 20 "TACKLING CONGESTION" LINKAGES

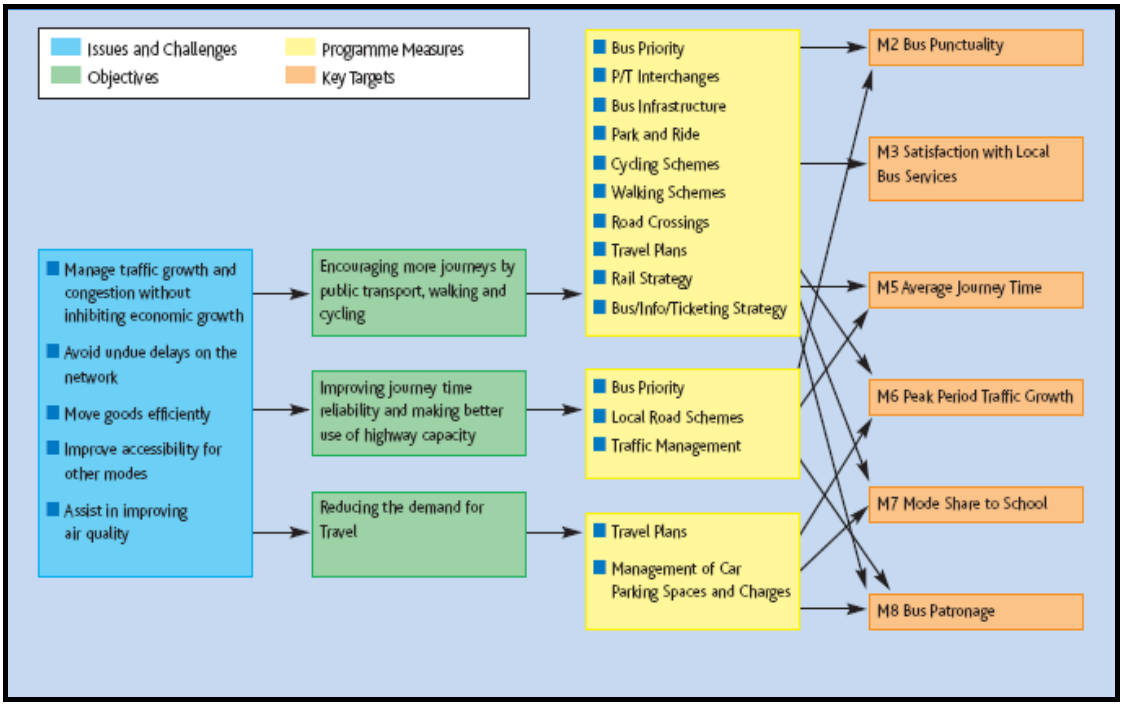
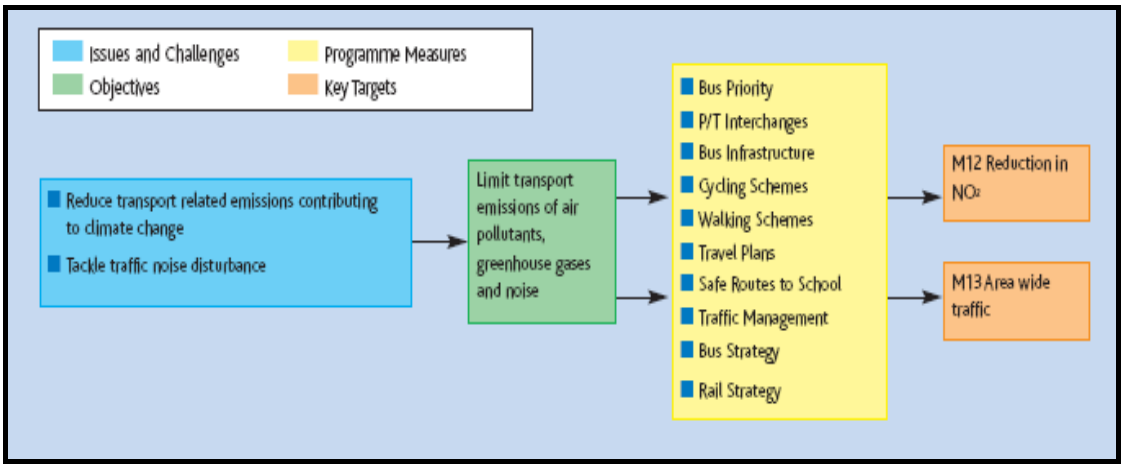


Figure 21 "BETTER AIR QUALITY" LINKAGES



As can be seen there is some considerable overlap in the measures that will impact on both congestion and air quality.

6.3.1 Congestion Measures

A congestion delivery plan has been developed through WYLTP to tackle congestion as part of the Department for Transport's Public Service Agreement target to reduce congestion.[31] It focuses on 13 routes across West Yorkshire to monitor the progress of the target and overall effect of proposed congestion measures. The identified congested corridors are:

- Black Road (A655), Wakefield;
- Doncaster Road (A638), Wakefield;
- Leeds Road (A61), Wakefield;
- Horbury Road (A642), Wakefield (from New Road to St. Michaels Gyratory);
- Dewsbury Road (A638), Wakefield (from M1 J40 to Quebec Street);
- Denby Dale Road (A636), Wakefield (from M1 J39 to Quebec Street/ Ings Road);
- Barnsley Road (A61 south), Wakefield (from Standbridge Road to Bridge Street);
- Aberford Road (A642 north), Wakefield (from M62 J30 to A61 Trinity Way);
- Wakefield Road (A645 west), Pontefract (from Crematorium to Baileygate);
- Mill Hill Road (A639 south), Pontefract (from A628 junction), Jubilee Way, Park Road to M62 Junction 32.

A detailed congestion solution proposals table for each of the roads is in Appendix 3.

6.3.1.1 C1 – ENCOURAGE MODAL SWITCH TO PUBLIC TRANSPORT

a. Metro Bus Strategy

Metro is the West Yorkshire Passenger Transport Authority representing the five local authorities and 2.1 million people for local public transport needs. It does this by:

- Subsidising bus services;
- Funding local Metro Train services;
- Running passenger facilities;
- Operating AccessBus services for disabled passengers;
- Managing prepaid tickets and concessionary fares;
- Leading transport development; and
- Providing information on all public transport services within West Yorkshire.

[31] WYLTP "Congestion Delivery Plan – 2006/7 – 2010/11"

Metro's Bus Strategy[32] contains measures to encourage a modal switch to bus services by making the services more attractive which include:

- Improved punctuality and performance;
- Simplified ticketing, fares and routes to reduce boarding delays;
- Improved networks;
- Greater service stability;
- Better customer service; and
- Increased fleet investment.

Further details of the measures are described in appendix 3.

b. The Yorkshire Bus Initiative

The Yorkshire Bus Initiative is a partnership between WYLTP, South Yorkshire local authorities and the City of York and bus operators. Its objective is to improve the infrastructure, vehicles and priorities on the core network. Identified major scheme bids are made to Government Office for funding to enable acceleration of delivery.

c. Improved Bus Service Performance

The introduction of Real Time Passenger Information (RTPI) funded through the LTP1 process is now providing instant information for passengers through mobile phone and bus stop displays. Driver training and education under the West Yorkshire Transport Education and Skills is designed to retain and improve performance.

d. The Rail Strategy

Metro's rail strategy "RailPlan 6" includes measures that meet the over-arching policy of:

"Ensuring, in partnership with train operators, Network Rail and others that train services are as effective as possible in meeting the travel needs of the people of West Yorkshire, serving both existing passengers and attracting additional patronage, including modal shift from the car"

The measures include:

- Managing peak capacity. Through providing extra rolling stock at peak times and optimising fares to increase use outside peak times and encourage a move away from peak times.

[32] http://www.wymetro.com/

- Providing additional car parking capacity. Increasing the size of existing parks where feasible and new stations will include park and ride facilities linked to bus services.

- Improved integrated transport. The provision of physical interchanges at specific stations with seamless connections and fares with bus and rail. Improved cycle facilities including lockers and facilities on trains and improved lighting, footway conditions, signage and pedestrian crossing facilities for passengers on foot

- Station environment improvements. Including new shelters, lighting and signage making the area welcoming.

- Enhancing strategic links. Providing a wider variety of destinations for people who require business trips during the working day to other centres. The provision of an inter-urban network will allow improved effectiveness of the rail networks ability to move people quickly and efficiently in a busy urban environment.

Measures for Metro controlled rail lines within the district are shown in figure 22

Figure 22 RAILPLAN6 MEASURES FOR WAKEFIELD DISTRICT

RD7: Pontefract Line

Vision

The Pontefract Line comprises two routes to Knottingley from Leeds and Wakefield and a limited Leeds – Goole service. A new station at Glasshoughton was opened in February 2005 serving the retail and entertainment complexes and new housing. The vision for this route is develop business to/from the new station at Glasshoughton, improve interchange including delivering the major new interchange at Castleford and restore services through to Wakefield Westgate (where they currently terminate at Kirkgate). It is also proposed to undertake a review of services in the area to inform the development of a longer term plan for services.

LTP2 Priorities

Priority area	Action	Delivery and Funding Mechanisms
Develop business at Glasshoughton	Promotional activities	In partnership with Northern Rail
Interchange and integration improvements	Implement the Castleford Interchange scheme	LTP major scheme (provisional funding secured)
	Potential enhancements to Park and Ride (e.g at Pontefract Monkhill and Knottingley)	LTP2 capital
Development of services	Restoration of services to Wakefield Westgate	Major scheme bid developed to increase capacity at Westgate
	Proposals for additional strategic links (e.g Grand Central's proposals for Pontefract to London services) will generally be supported	Services would have be financially self-supporting
	Develop options for amendments and improvements to local services to deliver overall best value for money.	Options assessed with Metro's rail model and through future Route Utilisation Study. Any changes to be resource neutral of funded through additional revenue sources

RD8: Wakefield Line

Vision

The Wakefield line forms part of the regionally important East Coast Main Line and cross-country networks towards London, the Midlands and the West Country. Increased services in recent years have caused capacity problems, particularly at Wakefield Westgate. The vision for this line is the expansion of capacity at Wakefield to allow for both additional intercity services and to support delivery of the regional transport priority for enhanced Leeds-Sheffield services. A further priority is the provision of additional park and ride capacity on the route.

LTP2 Priorities

Priority area	Action	Delivery and Funding Mechanisms
Improved capacity and operational efficiency at Wakefield Westgate	Construct additional platform / track accommodation to facilitate more local trains to stop without interfering with main line services	Major scheme bid
Enhanced services	Restoration of Pontefract Line services to Wakefield Westgate	Dependent on major scheme bid
	Develop proposals for a further Leeds-Sheffield fast service	No funding source identified at this stage.
Park and Ride enhancements	Extensions at heavily used stations (e.g Sandal and Agbrigg)	LTP2 capital

e. Travel to school by bus

Peak hour congestion from the "school run" is well documented. Local air quality monitoring in urban centres shows a dramatic reduction during school holidays demonstrating a significant influence on potential exceedence of air quality standards. Two schemes have been developed to secure a modal shift away from car use: the MYBus scheme and the provision of a Wakefield sustainable strategy for travelling to school

MYBUS SCHEME

This is a West Yorkshire scheme providing access for pupils from home to school[33]. A "yellow bus" containing seatbelts, cctv and a dedicated driver is provided for safety, security and reassurance. Some 117 schools use the scheme with figures of 70% shift from cars. Expansion of the scheme is currently underway with a further 60 buses on stream in 2007.

SUSTAINABLE TRAVEL TO SCHOOL IN WAKEFIELD

All local authorities are required under section 508B of the Education Act 1996 to:

"ensure that suitable home to school travel arrangements are made for eligible children to attend qualifying schools or other relevant institutions where a child is receiving education". As part of this a "Strategy for Sustainable Travel to School in Wakefield" has been produced that has a vision of[34]:

"Wakefield pupils and their parents should be able to choose to travel safely, sustainably and healthily to school wherever they live in the District"

This will be achieved by:

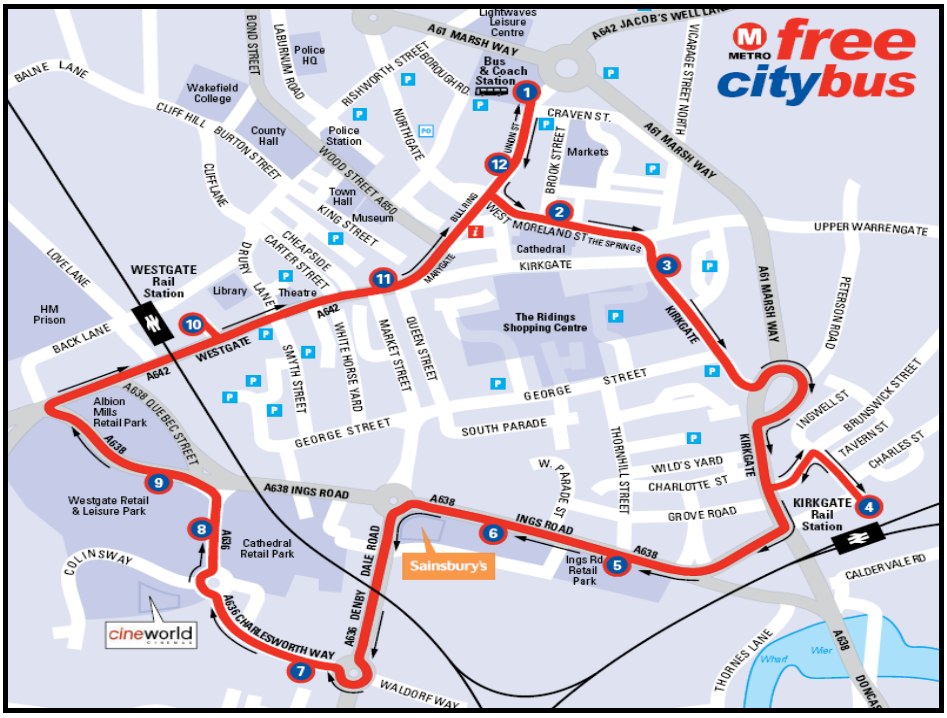
- Assisting schools in producing a School Travel Plan;
- Assess the needs of children and young people to identify local needs for footpaths and cycle routes that reduce the need for using cars to school; and
- Monitor and review the process to establish progress in achieving targets of sustainable travel.

[33] http://www.wymetro.com/SchoolsAndColleges/YellowBus/AnIntroductiontoYellowBus.htm
[34] http://www.wakefield.gov.uk/Education/Schools/SchoolTransport/Default.htm

f. Free Wakefield City Bus

A free bus service provided by Metro operates daily through the main city centre linking the two rail stations; bus station and shopping centre (figure 23) began in 2007. Figures for the first six months of operation show over 100,000 people using the bus.

Figure 23 ROUTE OF THE WAKEFIELD FREE CITY BUS



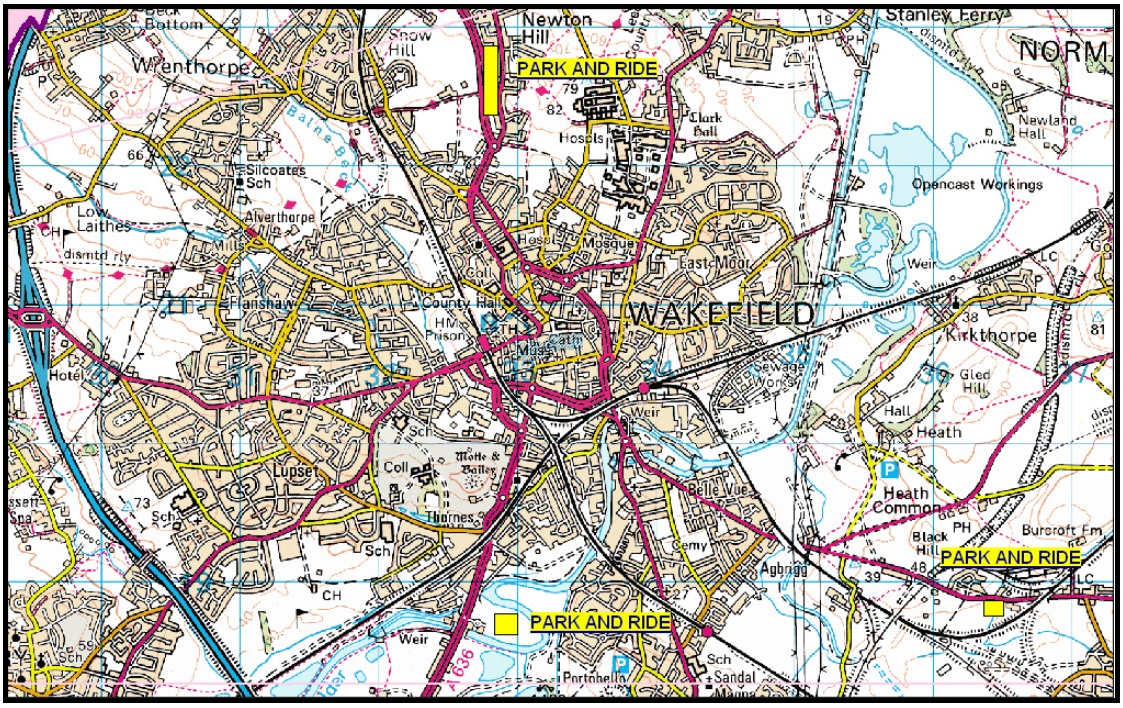
g. Park and Ride Schemes

Some 125 sites in West Yorkshire have been identified as potential Park and Ride facilities with 59 sites in operation and 66 formally proposed for funding. This has reduced car numbers to a maximum of 3000 per day. Three sites within Wakefield city have been identified in LTP2 for funding in the medium term (5-10 years). These being: (figure 24)

- A638 Doncaster Road;
- A650 Newton Bar; and
- A636 Calder Park

The Calder Park site has subsequently been removed from the list in 2009.

Figure 24 POTENTIAL PARK & RIDE IN WAKEFIELD CITY



h. Congestion Charging

Charging to enter a specified zone (often within time limitations) is one way to encourage people to use alternative modes of transport or reduce the need to travel entirely (through the financial incentive to change work, shopping or leisure patterns). To date, the London Congestion charging scheme is the most prominent scheme to date with Greater Manchester in the process of developing a charging scheme and Durham with a small area charging scheme in the city centre. Further schemes are being investigated under a Government funded trial to establish the cost effectiveness of such proposals. Leeds undertook a road user charging study similar to that of the London scheme and concluded that major infrastructural changes to the city's transport system would be required before any charging system would be effective at reducing the load of traffic on the network.

WYLTP2 is sceptical about the likely benefits and is concerned that the economic growth and regeneration proposals under the Northern Way may be curtailed by such a move. However, it also feels that:

"It is almost inevitable that congestion will increase to a point where more radical measures are needed. …The Partnership recognises that we need to be ready for this situation and need to investigate and plan for what measures would be required in the future".

The actual impact of congestion charging on local air quality is only likely to be visible once local weather, background pollution levels and source changes are proportioned into the traffic impact. The London scheme does not seem to have made any significant inroads into the local air quality[35].

6.3.1.2 C1 MEASURE AIR QUALITY ASSESSMENT

Each of the measures described above have been assessed as to their likely effectiveness on improving local air quality. Although the measures are targeted at improving congestion, there is a consequent impact on local air quality, albeit small overall.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Bus Strategy	Medium	Medium	Low Positive	Medium Positive	Low Positive	Short (2009)
YBI	Medium	Medium	Low Positive	Medium Positive	Low Positive	Short (2009)
Improved Bus Performance	Low	Low	Low Positive	Low Positive	Low Positive	Short
Rail Strategy	Medium	Medium	Medium Positive	Medium Positive	Low Positive	Short (2009)
Travel to School	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short
Free City Bus	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2009)
Park & Ride	Medium	Medium	Medium Positive	Medium Positive	Medium Positive	Medium (2011)

6.3.1.3 C1 MEASURES ACTIONS

Ensure that the Metro Bus Strategy is fully implemented and that further development of the strategy continues with increased emphasis on measures to further improve air quality.

Ensure that air quality measures form a major part of future bids. Changes to infrastructure, vehicles and the network will have a major influence on future road use in urban areas and the potential for innovation on such areas as fuel and engine types, driving modes etc. is large.

[35] http://www.tfl.gov.uk/assets/downloads/fifth-annual-impacts-monitoring-report-2007-07-07.pdf

Ensure that the Rail Strategy is fully implemented and that integration with other modes of transport including the provision of Park and Ride, cycling facilities and improved bus provision, is fully committed.

Encourage the expansion of the MYBus scheme and ensure that the commitment to increasing the level of alternative travel to school modes is maintained.

Investigate the potential for expanding the Wakefield Free City Bus scheme to other towns and into suburban areas with the possibility to link to future Park and Ride schemes.

Ensure that air quality remains a major component in the bidding for the establishment of Park and Ride facilities within the District. Further consultation with the Highways Agency is required to ensure that Park and Ride facilities on the strategic highway junctions within the District are encouraged.

6.3.1.4 C2 - MANAGE THE DEMAND FOR TRAVEL & C3 MAKING BEST USE OF THE EXISTING CAPACITY

This is achieved by controlling car parking within urban areas and reallocating the road space according to local priorities and by making the best use of existing road capacity.

a. Car Parking

The availability of car parking has a major influence on people's choice of means of transport. Reducing the amount of parking is essential to promoting sustainable travel choices and tackling congestion, whilst ensuring the vitality of town centres is not threatened. To this end the WYLTP car parking policy consists of:

- Continuing a reduction in long stay spaces in urban centres;
- Preference given to short stay parking (less than 4 hours);
- Extending parking control zones to urban boundaries;
- Increasing parking charges, in particular long stay, in real terms;
- Increased on street parking charges;
- Increase in resident parking zones;
- De-criminalisation of parking offences to the control of local authorities;
- Ensure an effective parking policy is provided within LDF's;
- Use additional income to fund park and ride schemes.

A Wakefield Parking Strategy was developed in 2006 to inform and implement changes to car parking within the District[36]. Its recommendations were based around five principles: the supply of parking space; location of parking; control and enforcement; quality of facilities and pricing of parking.

Supply of Parking Space:

- Convert long stay commuter spaces into short stay spaces;
- Develop park and ride schemes;
- Relocate commuter space to sites outside the centres;
- Make better use of commercial and rail parking space outside peak times.

Location of Parking:

- Variable messaging signs should be introduced to direct people to large parks where space is available;
- Park and ride locations outside the centres;
- Remove on street parking that detracts from the urban environment or is better served by pedestrians.

Control and Enforcement:

- Adopt a decriminalised parking regime that allows direct control of enforcement;
- Encourage retailers with private car parks to enforce their own parking restrictions.

Quality of Facilities

- Improve the CCTV facilities within the car parks;
- Provide enhanced lighting in reduced light car parks;
- Improve cycle and motorcycle parking using the Sheffield type stands.

Pricing of Parking

- Increase the level of pay on foot/exit to reduce the number of movements between car parks;
- Set prices to that of neighbouring towns and cities;
- Consider using price differentiation by charging premium prices in overcapacity zones and especially for long stay parks.

The proposed LDF includes policy provision for influencing car parking and new development (Policy CS14).

[36] WMDC, "Wakefield Parking Strategy 2006"

Policy CS 14

Influencing the Demand for Travel

The Council will work with relevant national, regional and sub-regional agencies to develop a co-ordinated long term approach to manage the demand for travel. The spatial development strategy will maximise the use of sustainable modes of travel – public transport, walking and cycling and reduce the need to travel by concentrating development in city/town centres. Alongside this strategy, the Council will influence the demand for travel through:

a. *limiting the amount of car parking in new development through the application of maximum parking standards, particularly in urban areas with higher levels of accessibility by public transport, and lesser standards in local service centres, villages and smaller settlements, where accessibility by public transport is limited and where the level of parking is appropriate in relation to the scale and type of development proposed;*
b. *reduce car parking provision on city/town centre sites where public car parking or alternative modes of transport are available, particularly in Wakefield city centre, and Pontefract and Castleford town centres;*
c. *reduce long stay parking (other than at railway stations and park and ride sites) and transfer spaces to short stay, where appropriate;*
d. *introduce park and ride facilities on major transport routes in association with public transport service improvements and measures which give priority to public transport in the use of road-space.*

b. Reallocation of road space.

This relies on providing optimum road space to maximise the number of people utilising the road. It is achieved through:

- Providing a bus priority within sections of the highway;
- Implementing High Occupancy Vehicle (HOV) lanes; and
- Utilising Urban Traffic Management and Control (UTMC) measures.

Bus Priority

Where space allows a bus only lane or time priority scheme can be implemented that allows priority at junctions and reduces waiting time in busy traffic. Recent and planned bus priority measures in Wakefield are estimated to increase the share of this mode by 5%. If these schemes are linked with proposed park and ride schemes further substantial increases in mode share are predicted.

High Occupancy Vehicle Lanes

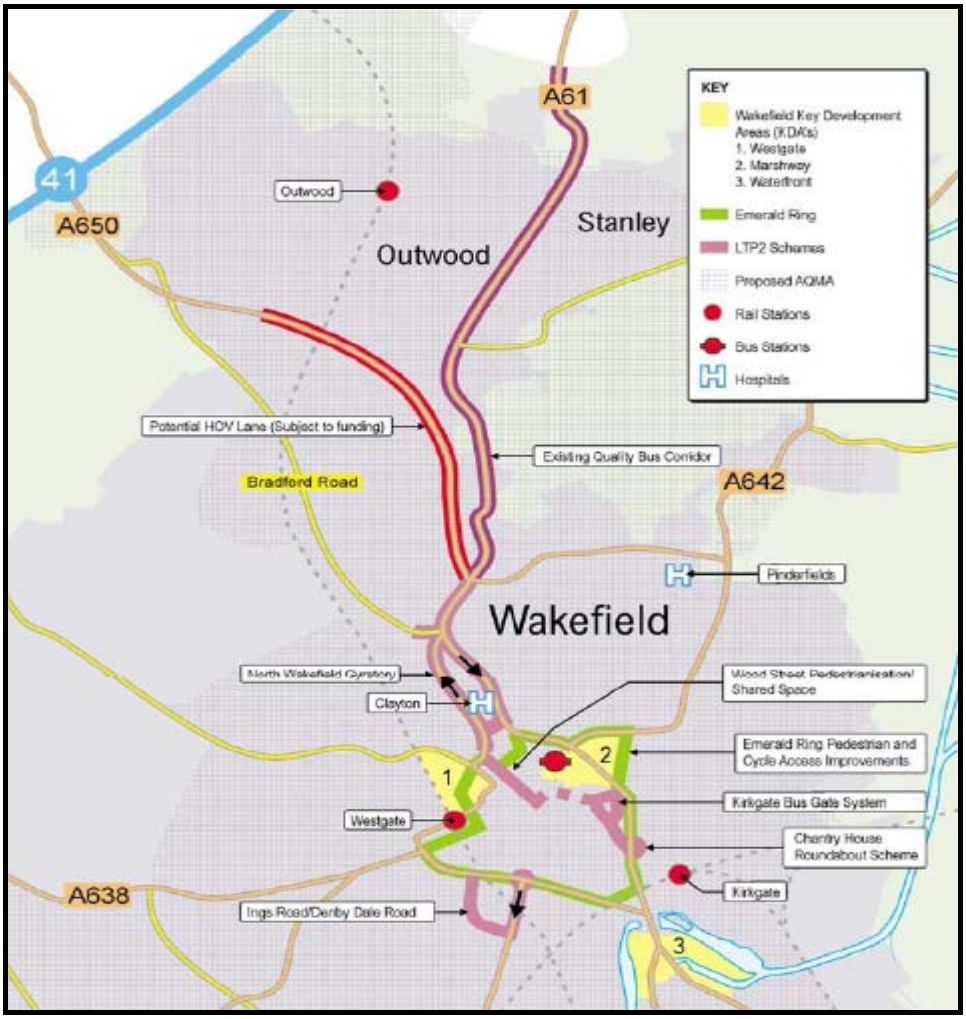
HOV lanes are reserved for buses, taxis and cars with more than one occupant. Unfortunately, for taxis and cars there is a need for effective enforcement which requires considerable resources for vehicle recognition technology. A recent trial on the A647 in Leeds resulted in the need for implementing such technology and shows some sign of increased use.

Two HOV schemes in Wakefield are being developed:

- A650 from J41 of the M1;
- A636 from J39 of the M1.

The A650 scheme forms part of the northern approach study linking the Wakefield Gyratory, Emerald Ring, and regeneration schemes (figure 25). Using data from the Leeds scheme it is estimated that peak journey time saving of two minutes will be made. In addition, the reduction in peak traffic flows due to HOV lanes is expected around 10%.

Figure 25 A650 HOV LANE AND NORTHERN APPROACH STUDY



Urban Traffic Management and Control (UTMC)

Utilising CCTV; traffic light controls; and implementing the Traffic Management Act 2004 that requires local authorities to ensure that traffic keeps moving, can relocate congestion and ease flows. The implementation of a SCOOT (Split Cycle and Offset Optimisation Technique) system which responds automatically to changing conditions and holds queues outside congested areas forms a major contribution to reducing congestion.

6.3.1.5 C2 & C3 MEASURE AIR QUALITY ASSESSMENT

Each of the measures described above have been assessed as to their likely effectiveness on improving local air quality. Although the measures are targeted at improving congestion, there is a consequent impact on local air quality, albeit small overall.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Car Parking	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2009)
Reallocation of road space	Low	Low	Low Positive	Low Positive	Low Positive	Medium (2011)
UTMC	Low	Low	Low Positive	Low Positive	Low Positive	Medium (2011)

6.3.1.6 C2 & C3 MEASURE ACTIONS

Ensure that the recommendations of the Wakefield Parking Strategy are fully implemented and integrated into the LDF process. A further assessment of the impact of the strategy is recommended in the future to establish any further changes following the regeneration of town and city.

Investigate the true impact of implementing HOV lanes in the District and the level of enforcement and other resources required to maintain the scheme. The relative resource expenditure may not result in a cost effective increase in air quality unless the scheme is fully integrated into other measures, such as Park and Ride.

Investigate further improvements in the UTMC system and the potential for linking to transport and air quality modelling capability. A fully integrated system has the potential for: early warning of problems linking to roadside information systems; early reallocation of congestion problems and testing of “what-if” scenarios for future development and transport schemes.

6.3.1.7 C4 - IMPROVE THE HIGHWAY NETWORK

Road infrastructure changes both major and minor can provide significant changes to traffic flow and reduce congestion. However, cost effectiveness is a vital consideration, particularly in major schemes such as urban by-passes. The needs of health improvement associated with improved air quality has to be balanced with the degree of road infrastructure changes.

Maintaining the road structure and minimising utility works will also contribute to reducing congestion through the provision of smooth running surfaces to ensure a steady traffic flow and improve overall journey time.

Wakefield road infrastructure proposals include major development schemes some of which are described earlier (4.2.7).

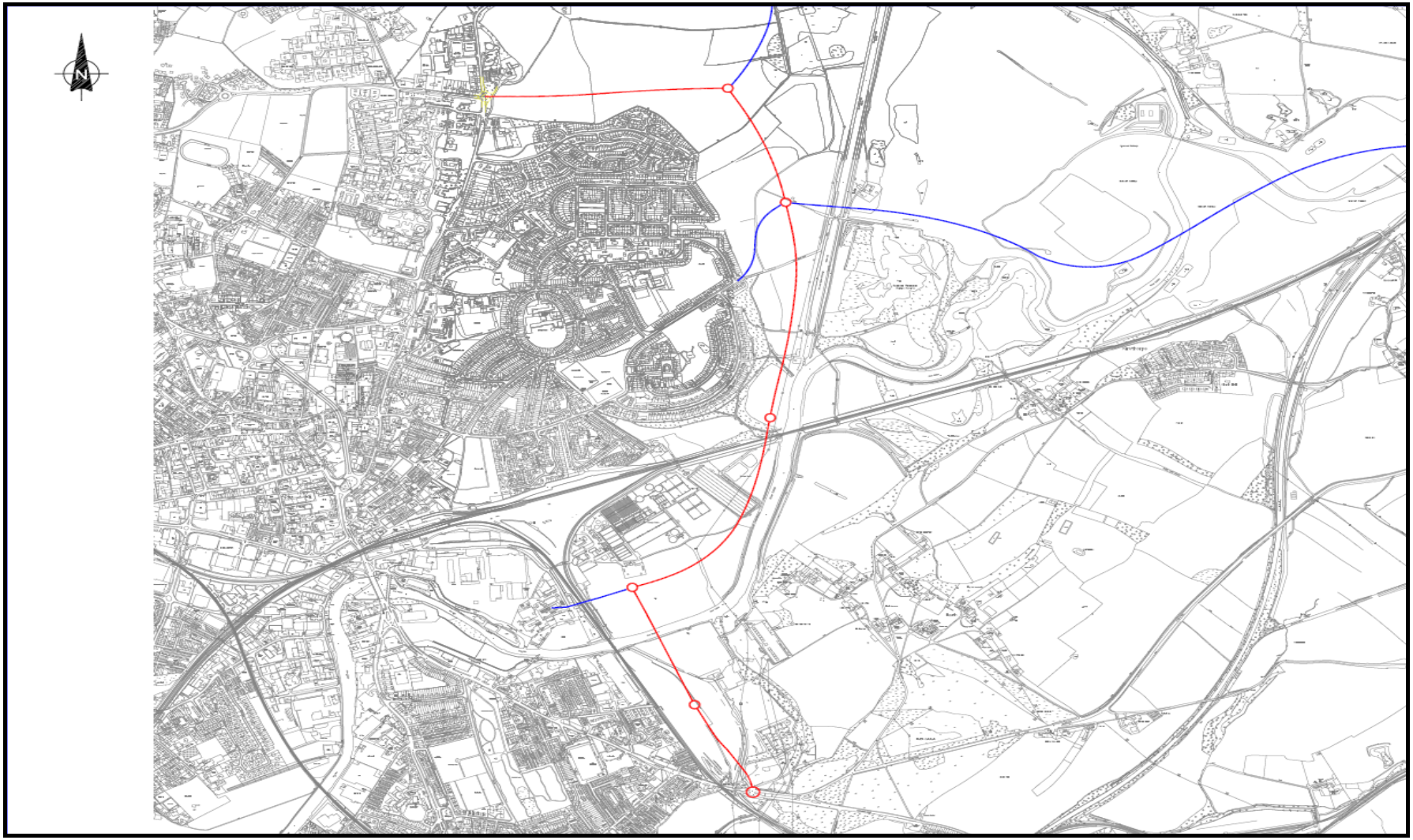
a. Proposed By-pass Schemes

Wakefield City Eastern By-pass

A new road is proposed that links the A638/A655 junction to the south of Wakefield city, with a new river Calder crossing, to link to the A642 north of the new Pinderfields hospital (figure 26).

The scheme would allow the substantial commuting through traffic to Leeds and motorways to bypass the centre of Wakefield, reducing traffic and congestion and thereby improving the local air quality for residents close to existing congested roads. The likely reduction in air pollution will be considerable if the scheme is linked with the other proposed congestion measures and regeneration developments in the city. This would have a considerable impact on the Wakefield City AQMA.

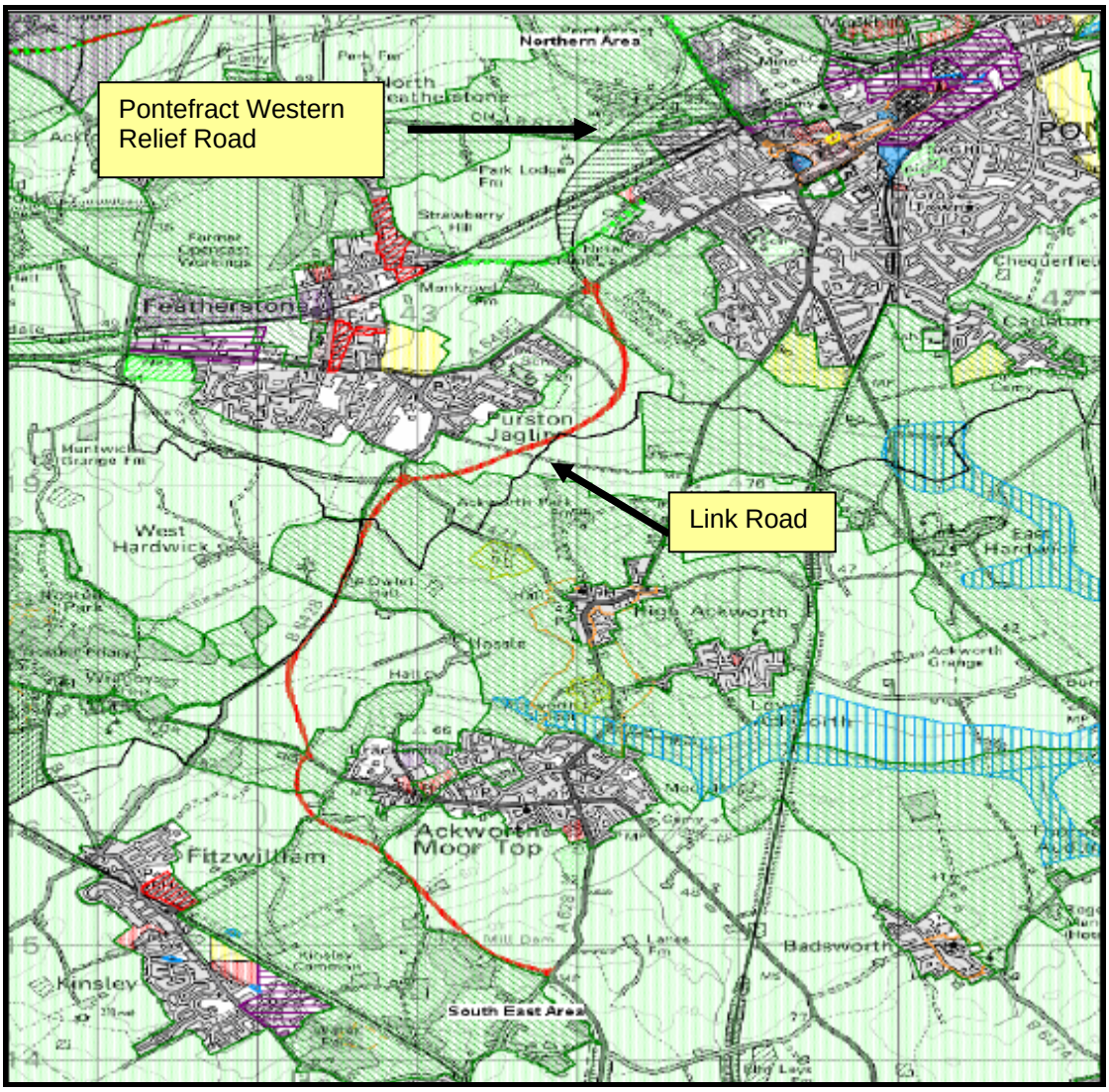
Figure 26 WAKEFIELD EASTERN BYPASS



South East Link Road

The scheme was originally designed to bypass the A628 running through Ackworth village and has been extended to accommodate relieving congestion in Featherstone and, if extended would help relieve pressure in western Pontefract and links to the M62 (figure 27).

Figure 27 SOUTH EAST LINK ROAD



The Featherstone AQMA was designated for congested traffic on the main road mainly due to through traffic which could be significantly affected by the link road.

Pontefract Western Relief Road

At the northern end of the South East Link Road is a projected area of land that links the A645 east of Featherstone and the A639 Park Road in Pontefract (figure 27). The route would significantly relieve the congested A645 and Mill Hill Road. This would have consequent impacts on the AQMA declared at the junction.

b. Major development schemes with road infrastructure changes

Wakefield City Schemes

The schemes are shown in table 7.

Table 7 REGENERATION SCHEMES IN WAKEFIELD CITY

Major Scheme	Delivery
Wakefield Westgate Station Redevelopment	Short term
Northern Gyratory System	Short term
Emerald Rind Development	Medium term
Park and Ride Schemes	Medium term
Trinity Walk Development	Short term
Waterfront Development	Short term

Five Towns Scheme

Schemes are shown in table 8.

Table 8 FIVE TOWNS MAJOR ROAD SCHEMES

Major Scheme	Delivery
Castleford Town Centre Regeneration	Short Term
Glasshoughton Coalfields Link Road	Short Term

The Glasshoughton link road is designed to attract traffic away from local urban areas into the Freeport commercial centre and allow free movement of HGV form motorway to distribution centre without impacting on local roads. This has to be balanced with the expected significant increase in vehicle numbers attracted to the area.

The Castleford scheme allows easier use of public transport but will require a fundamental change to the provision of transport and how access to the new facility will reduce traffic. The increase in local housing development in the Castleford town centre will also increase pressure on existing roads that have caused the creation of the Castleford AQMA.

South East Schemes

These are shown in table 9

Table 9 SOUTH EAST SCHEMES

Major Scheme	Delivery
Hemsworth – A1 Link Road	Short Term

The link road connects the Hemsworth bypass to the A1 and provides the opportunity to expand local industry and commerce in South Kirkby, Upton and South Elmsall. This will likely attract additional traffic to the area which will require managing to prevent increasing traffic emissions at residential locations close to the highway.

6.3.1.8 C4 MEASURE AIR QUALITY ASSESSMENT

Each of the measures described above have been assessed as to their likely effectiveness on improving local air quality. Although the measures are targeted at improving congestion, there is a consequent impact on local air quality, albeit small overall.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Urban By-pass	High	V.High	Medium Positive	Medium Positive	Medium Positive	Long (process began 2009)
Major Developments	Low	Medium	Medium Positive	Low Positive	Medium Positive	Short

6.3.1.9 C4 MEASURES ACTIONS

A detailed assessment of the likely air quality impacts of the proposed by-pass proposals should be considered to provide a better understanding of the cost effectiveness of such expensive proposals. This could be achieved utilising an improved traffic and air dispersion model available within the Authority.

Most of the proposed major developments have gained planning approval and some are in early development stages. Air quality assessments undertaken as part of the planning process were individually, unable to identify the impact of all the schemes together. It is recommended that support is given for post development monitoring and modelling is undertaken to establish the actual air quality impacts of all the schemes, particularly in Wakefield City, through WYLTP

6.3.1.10 C5 - ENCOURAGING MORE WALKING AND CYCLING

Those who choose cycling and walking as a means of travel can contribute many environmental and health benefits to the local transport mix, as well as having a positive impact in terms of helping to reduce traffic congestion, pollution and noise. Cycling and walking are both a strong option for short journeys, either on their own or in combination with public transport.

Nationally there is a strong commitment to see year on year growth in cycling and walking with a National Cycling Strategy published in 1996[37] set a target of quadrupling the number of cycling trips by 2012 (based on 1996 figures) and has also set an interim target of trebling cycle trips by 2010 (based on 2000 figures). The National Cycle Network[38]now extends to nearly 12,000miles with 2000miles being added since 2006.

To help achieve these objectives, all local authorities are tasked with developing local strategies within the LTP to identify local infrastructure problems and improvements necessary to increase the local mode use.

The implementation of the Countryside and Rights of Way Act 2000[39]required local authorities to review existing Rights of Way (ROW) and publish plans for improving and extending ROW where practicable. A Rights of Way Improvement Plan (ROWIP) is required that sets out:

- An assessment of the extent to which local rights of way meet the present and likely future needs of the public;
- The opportunities provided by local rights of way for exercise and outdoor recreation;
- Accessibility for blind and partially sighted people and others with mobility problems.

[37] www.Defra.gov.uk
[38] http://www.sustrans.org.uk/webfiles/general/sustrans_2008_ncn_map.pdf
[39] http://www.defra.gov.uk/wildlife-countryside/cl/bill/factsheet/index.htm

The WYLTP contains three objectives to encourage more walking and cycling:

- Dealing effectively with the barriers to walking and cycling;
- Promoting the associated benefits which include sustainability, health, journey time reliability and affordability; and
- Integrating with public transport.

Measures to achieve these objectives are:

- Completing a strategic cycling network linking schools and rail stations;
- Developing the walking strategy and stakeholder engagement with schools, Primary Care Trusts (PCTs) and community groups;
- Improved signage;
- Cycle parking facilities;
- New on and off highway cycle routes;
- All weather surfaces and improved lighting in urban areas;
- Linking city centres by foot to inner residential areas;
- Promotion of ROWs as a viable alternative for short journeys, such as to work or shopping.
- Partnership working with other organisations, in particular PCTs to promote the health benefits of walking and cycling.

The WYLTP Walking Strategy includes measures divided into four areas: Planning and development; Engineering; Education and Encouragement and Enforcement.

Planning & Development
Manage and improve the existing network of footways and ROWs to achieve continuous walking links throughout urban areas.
Maximise the use of the most attractive walking routes by the development of effective signage.
Use the planning system to stimulate a growth in walking and ensure pedestrian access is a primary consideration in developments.
Take a co-ordinated approach to tackling community safety particularly where personal security is a deterrent from walking.
Engineering
Provide measures to aid pedestrians when crossing roads with heavy traffic conflicts.
Implement local safety schemes to reduce injuries and general safety.
Introduce measures to reduce traffic speed and volume to reflect pedestrian needs.
Establish Safer Routes to Schools to encourage more walking and cycling to school.
Ensure best practice in maintenance of footways.
Education & Encouragement
Work with health services to promote the health benefits of walking.
Use the opportunities presented by road safety education to influence attitudes of other road users towards pedestrians and walking.
Enforcement
Support law enforcement in their work to address bad driving which deters walking
Ensure that footways and pedestrian facilities are free of parking and other hazards.

Wakefield District Walking and Cycling

ROWIP

The ROWIP has undergone a considerable effort to provide:

- an assessment of the extent to which local rights of way meet the present and likely future needs of the public;
- the opportunities provided by local rights of way for exercise, outdoor recreation and the enjoyment of the district;
- the accessibility for blind and partially sighted people and others with mobility problems; and
- consideration of the present opportunities for access provided by permissive paths, disused railway lines, canal towpaths, cycle tracks and access to parks and greenspaces.

It contains 13 key conclusions designed to enhance the existing land use and establish a platform for increased use.

1. Information – Improved information in a variety of formats can increase use of the path network.
2. Information on wider access to greenspaces and on other access routes needs to be collated and made more widely available.
3. Recording of routes – The record of public rights of way and other access routes needs to be brought up to date.
4. Missing links – There is a need for additional off-road routes to address the needs of specific users.
5. Access for all – Blind or partially sighted people and others with mobility problems have limited access to the path network both physically and in terms of information.
6. There is variation in the accessibility to the network for some communities – this needs to be addressed so that opportunities to use paths are available to all members of our community.
7. Network maintenance – Insufficient maintenance of paths discourages use and is a concern to all path users.
8. Improvement to signage can encourage wider use of the network, especially for visitors.
9. Anti-social behaviour – Problems of anti-social behaviour need to be addressed as this deters people from using paths and impacts on their enjoyment.
10. Updating the network – There is a need to update the network to reflect current needs and use.
11. Enhancing the network – Path enhancements can increase use and add to people's enjoyment.
12. Partnership working – The rights of way network should not be considered in isolation. Use of, management of and improvements to rights of way are interlinked with many other existing and proposed plans and strategies.
13. Enhancing economic opportunities - There is untapped potential for long distance routes in the district that could link to regional and national trails and routes, such as the Trans Pennine Trail and the National Cycle Network. These could attract district wide economic opportunities through sustainable tourism, particularly if integrated with local circular link routes and key sites.

A detailed action plan is included in the report that considers measures to achieve the thirteen conclusions and is summarised in appendix 4.

The Wakefield Local Access Forum[40] is a statutory advisory body that advises on the improvement of public access to land within the District for open-air recreation and enjoyment. The forum gives advice on:

- The implementation, management and review of the statutory right of access to the countryside
- Improvement of the rights of way network
- The development of recreation and access strategies

The forum represents a balance of interests including users, landowners/occupiers, business, heritage, nature conservation etc.

Walking

Wakefield promotes walking by supporting leader led countryside walks; Healthy Walks; and the "Walking Bus Scheme" [41].

The Healthy Walks are regular, leader led walks throughout the district designed to increase the number of people taking active exercise and introduce them to alternative, healthy modes of transport (figure 28).

40 http://www.wakefield.gov.uk/CultureAndLeisure/ParksAndNatureConservation/Footpaths/WDAF/default.htm

41 http://www.wakefield.gov.uk/CommunityAndLiving/Walking+and+Cycling/default.htm

Figure 28 WAKEFIELD HEALTH WALKS

The “Walking Bus Scheme” comprises a minimum of two volunteer parents who escort a group of children on their journey to and from school. It promotes exercise by encouraging walking and helps to reduce traffic congestion near to school. The volunteers walk along a set route collecting pupils at 'bus stops' on the way.

Cycling

A Cycling Strategy was produced in 2002 that formed the basis of the ROWIP project and linked with WYLTP1 and WYLTP2 measures. A number of detailed cycle route maps have been produced promoting an alternative mode for leisure and possible work use.

6.3.1.11 C5 MEASURE AIR QUALITY ASSESSMENT

Each of the measures described above have been assessed as to their likely effectiveness on improving local air quality. Although the measures are targeted at improving congestion, there is a consequent impact on local air quality, albeit small overall.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
ROWIP	Medium	Low	Medium Positive	High Positive	Medium Positive	Short
Walking	Medium	Low	Medium Positive	High Positive	Low Positive	Short (2009)
Cycling	Medium	Low	Medium Positive	High Positive	Low Positive	Short (2009)

6.3.1.12 C5 MEASURE ACTIONS

Further support is required for the implementation and operation of the commitment to ROWIP and the Wakefield Local Access Forum. Additional promotion and marketing of the schemes should be investigated through WYLTP.

Additional support and promotion of the Health Walks and Cycling schemes should be considered through WYLTP and PCTs.

Methods of improving the links with all groups involved in measures to encourage non car use and promoting smart, sustainable choices should be undertaken to increase the effectiveness and efficiency of the proposals.

6.3.1.13 C6 PROMOTE SMARTER CHOICES IN TRAVEL

The provision of an effective alternative to car use and the promotion of making these "smarter" choices is vital for producing significant inroads into the current levels of congestion and consequent poor air quality. In conjunction with the measures described under C1 (Encourage a modal shift to public transport) the WYLTP includes measures that are designed to raise the level of awareness of smarter choices to individuals and businesses. These being:

- Increase the number of work place travel plans through the expansion and development of the West Yorkshire Travel Plan Network (WYTPN)[42];
- Implement a Travel to Work project with Yorkshire Forward and Partnership funding;
- Continue implementation of district authorities' in-house travel plans;
- Increase the number of school travel plans;
- Promote travel awareness including linking campaigns more closely to the provision of local highway infrastructure improvements;
- Introduce pilot personalised travel planning schemes at selected major developments;
- Encourage dedicated parking spaces at workplaces for car sharers;
- Develop car club schemes to promote car pooling;
- Provide on-line car sharing schemes for employers and employees;
- Develop transferable Metro cards for businesses which can be use for business travel.

The WYTPN provides a support framework to businesses and public service for developing sustainable travel planning and to promote alternative travel options. It includes:

- A dedicated Travel Plan Network Advisor
- Promotional campaign materials to encourage staff to use green travel options
- Regular updates and electronic newsletters
- Maps of transport routes in relation to employees' homes and the workplace
- Networking events to enable members to share experiences and practices

Some 140 organisations are currently catered for including health trusts, universities and colleges, local authorities and businesses.

[42] http://www.wytravelplan.com/

a. Travel Plans

A travel plan is simply a systematic approach to dealing with travel issues related to specific sites, with the general aim of promoting sustainable travel options. It can cover a range of aspects such as staff travel to work, business travel, access by visitors, and fleet or freight movements, depending on the travel priorities for your organisation.

As a major employer Wakefield District Council has a major role to play in the provision of smarter choices for its own employees to demonstrate the effectiveness of such schemes. Two schemes have been developed to encourage employees to change their commuting habits:

- "People 2 Places"; and
- "Wakefieldcarshare.com"

People 2 Places

People 2 Places[43] is the name given to Wakefield Council's Travel Plan. It encourages Council staff to use the full range of travel options available both for commuting and travel during the course of work. People 2 Places includes initiatives and measures, backed up with corporate policy support that aim to:

- Tackle travel issues within the Council;
- Improve transport options for all staff; and
- Encourage increased use of alternatives to driving alone.

The plan includes the current level of staff travel; targets to be achieved; measures to achieve the targets and a monitoring and review programme to audit the success. The measures are split into soft, hard and corporate depending on their financial and level of corporate support. They are reproduced in appendix 5.

Car Sharing

The Wakefield car share scheme[44] is a matching service enabling people travelling in the same direction and at the same time to travel together. The website allows individuals to sing in and identify journeys so that others can sign in to be passengers. The system is designed to be safe and secure for driver and passenger.

[43] WMDC, "People 2 Places – A Travel Plan For Wakefield Metropolitan District Council", 2006
[44] www.wakefieldcarshare.com

The level of use is not known but it is hoped that a detailed monitoring exercise to be undertaken in March 2008 for the People 2 Places travel plan will include the car share service as well.

School Travel Plans

Support to schools is provided by the authority to create individual travel plans. The Strategy for Sustainable Travel to School (see 5.3.1.1 e) sets out the approach for travel plan actions.

Writing School Travel Plans
It is already evident that most successful plans produced so far have been achieved with good engagement with whole school communities, mapping needs for walking, cycling and public transport in some cases. We have involved children, teachers, parents, governors, local residents and others to achieve a vision for what might be achieved. These successes don't come cheaply and it will not be possible to address all needs raised in plans the year following their completion, particularly where these are very ambitious. **We will:** Follow successful patterns of working to get the best results we can. Recognise that for most schools the mode change benefits will be best seen when any physical works identified are completed.
Implementing School Travel Plans
In writing and implementing plans for schools we will: Encourage schools to consider measures that are easily achieved by "soft" as well as "hard" measures. Continue with an annual programme for school specific works within budget constraints. Develop a longer term programme for highway and infrastructure improvements for walking and cycling: establishing "20mph" zones and other measures that will assist the long term objectives of promoting walking and cycling.
Schools with Travel Plans – and in the future
It is important that schools that have achieved a quality travel plan are not "abandoned" and a process for reviewing, monitoring and maintaining plans will be in place. **We intend to:** Engage with schools individually at least every 2 years to review the progress they are making towards targets they set in their plans, and how the School Census results compare with their progress. Provide opportunities for all schools with plans to take part in activities to enable promotion of sustainable travel options to be effective at schools on an ongoing basis.
Promoting sustainable travel to school Wakefield Council will:
Employ a choice advisor who will assist parents in choosing sustainable travel to school where that is identified as a priority by the family.

Promote sustainable options wherever possible and support initiatives that promote walking and cycling or public transport to school. Adopt a home to school travel policy that acknowledges the part that bus travel needs to play in a sustainable economy.

Encourage close working between the service areas that deliver safe routes. Continue to develop links with interested organisations to promote measures in support of the broad aims of the Community Strategy and other key initiatives.

Some 115 (70%) of schools in the District now have travel plans with the remaining 49 to be completed before March 2010.

Business Travel Plans

The WYTPN forms the major element of support for business travel plans. Wakefield Council has no specific input into advising local business and relies heavily on the work of Wakefield First which is the Wakefield district development agency for business supporting and advising local commerce.

The Environmental Health Service section of the council provides major support to local businesses on a number of issues. It is currently investigating the possibility of introducing additional help with environmental protection work of which air quality and transport will be a part.

6.3.1.14 C6 MEASURE ASSESSMENT

Each of the measures described above have been assessed as to their likely effectiveness on improving local air quality. Although the measures are targeted at improving congestion, there is a consequent impact on local air quality, albeit small overall.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Travel Plans	Low	Low	Medium Positive	Low Positive	Medium Positive	Short (2009)
Car Share	Low	Low	Medium Positive	Low Positive	Low Positive	Short (2009)

6.3.1.15 C6 MEASURE ACTIONS

Further support is required for the Travel Awareness, School transport, Healthy Transport services to improve the implementation of school travel plans and information. A study of the further needs and priorities of the services is recommended.

Additional promotion of the WYLTN is required to increase the awareness and availability of the scheme. Evidence of its impact is required with a further marketing campaign to increase the uptake of the service

Additional car sharing opportunities such as car pooling or vehicle logistics should be investigated within the People-2-Places scheme. A feasibility study is recommended.

6.3.2 WYLTP2 Air Quality Measures

Many of the measures that are described under the Tackling Congestion shared objective in the WYLTP apply to air quality. Four strategic elements are defined that are seen as adding to the impact of congestion reduction:

- AQ1 – Traffic demand management measures, focusing on commuter journeys;
- AQ2 – Encouraging more sustainable travel;
- AQ3 – Actions to reduce vehicle emissions; and
- AQ4 – Measures to adapt to the effects of climate change.

AQ1 – TRAFFIC DEMAND MEASURES

The measures are those detailed above including:

- Promoting public transport and other more sustainable modes of transport;
- Improved public transport;
- Re-allocation of the road space;
- Improved facilities for pedestrians and cyclists;
- Network management;
- Managing car parking;
- UTMC.

AQ2 – ENCOURAGING MORE SUSTAINABLE TRAVEL

These measures are also those detailed above including;

- Travel plans for schools and businesses;
- Utilising the planning system for LDF and development initiatives that promote sustainable travel.

AQ3 – ACTIONS TO REDUCE VEHICLE EMISSIONS

Measures are:

- Effective UTMC;
- Speed control and management;
- Improved highway schemes;
- Encouraging cleaner technologies;
- Promoting driver training; and
- Routine vehicle servicing.

AQ4 – MEASURES TO ADAPT TO CLIMATE CHANGE

The likely change in the severity and frequency of weather patterns including higher temperatures, more severe winds, floods and droughts will lead to transport infrastructure problems. Measures to mitigate these changes are proposed:

- Improvements in the drainage capacity and watercourse systems;
- More resilient signal controllers to combat higher temperatures;
- More substantial lighting columns and different tree species to resist stronger winds;
- Deflective barriers and shelter belts to reduce wind impacts;
- Changes to horticulture maintenance to cater for changes to the growing season.

6.3.2.1 WYLTP MEASURE AIR QUALITY ASSESSMENT

The majority of the measures are assessed under the congestion objective. An assessment of those not considered under the congestion objective are dealt with later.

As part of quantifying the impacts of WYLTP measures on air quality a modelling exercise was undertaken using a Strategic Transport Model developed for the partnership. An analysis of the transport network, land-use changes, congestion areas, and AQMAs was undertaken showing areas of speed reduction with and without the LTP measures (figures 29 & 30).

Figure 29 AREAS WHERE TRAFFIC SPEEDS ARE FORECAST TO DECREASE BY 2011 WITHOUT LTP STRATEGY

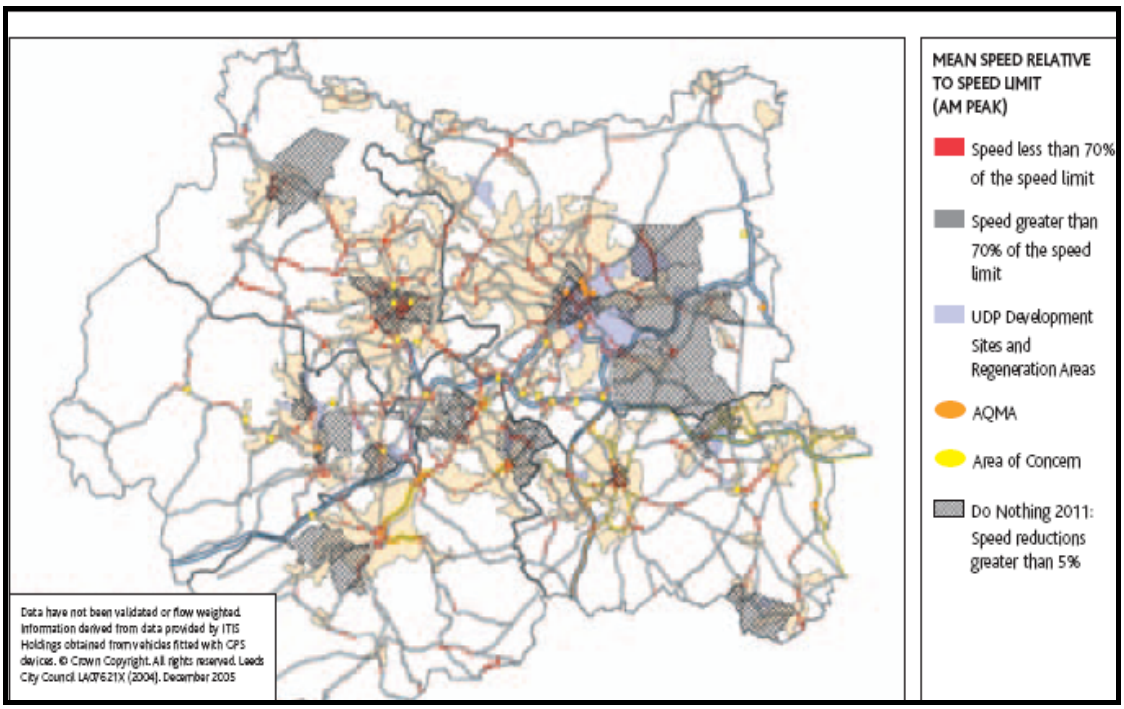
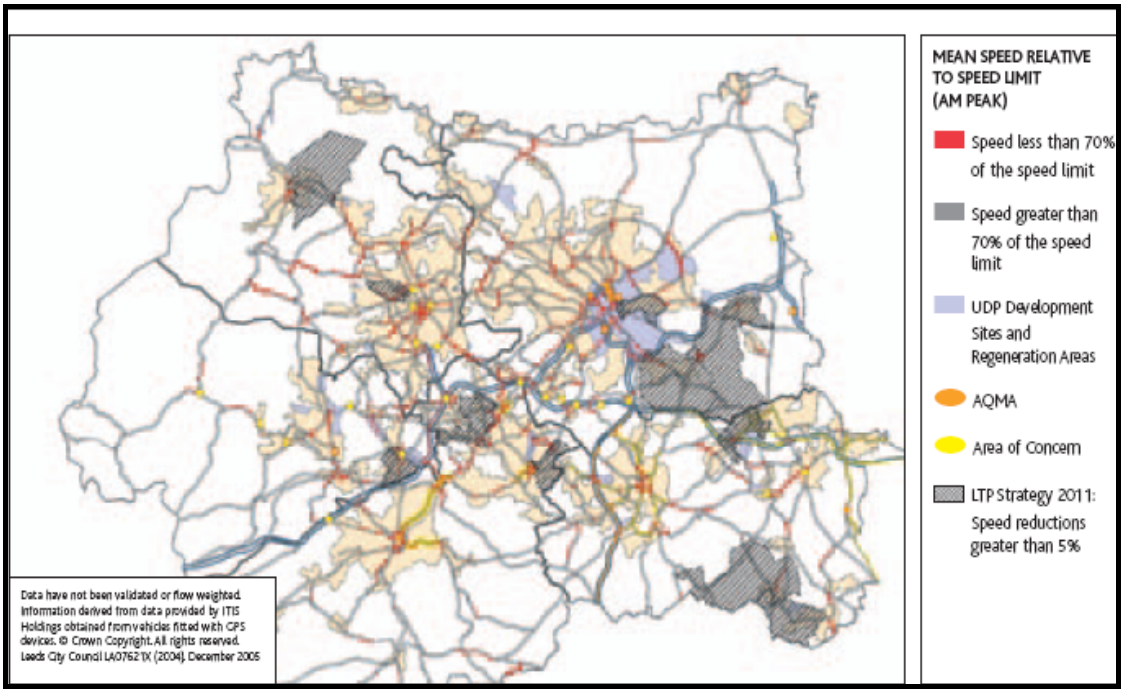


Figure 30 AREAS WHERE TRAFFIC SPEEDS ARE FORECAST TO DECREASE BY 2011 WITH LTP STRATEGY



There is no significant change in Wakefield district with the LTP strategy in place other than the south east area shows an increase in speed reduction. It is unclear as to why this occurs and demonstrates that this larger scale model requires more detailed validation. Modelling for each of the local authority areas may be appropriate.

6.3.2.2 WYLTP AIR QUALITY MEASURES ACTIONS

It is evident that much consideration within the LTP has been given to reducing congestion and an assumption made that air quality improvements will occur as a consequence. This may not be the case because of the volume of traffic or the receptor locations. Much more work is required into identifying and assessing local air quality measures as well as the tools to monitor and model their outcomes. A local district transport model linked closely to improved air quality modelling and monitoring is recommended. This transport model should be adapted from the existing STM used for West Yorkshire and support given to air quality measure monitoring capability.

6.3.3 Other Wakefield District Council Measures

A number of measures in Wakefield district that could impact on local air quality are available. These relate to: Emissions Management; Promoting and Providing Alternatives, Raising Awareness and Planning and Land Use Development. .

6.3.3.1 Emissions Management Measures

The main ways of improving vehicle emissions are:

- Replacing old vehicles with new vehicles which meet stricter emission standards;
- Use smaller vehicles which are more fuel efficient and give rise to less emissions per distance travelled;
- Use alternatively fuelled vehicles which give rise to less emissions per quantity of fuel used.

a. Taxis – use the licensing system to improve emissions.

There are some 2000 licences for private hire and taxi vehicles in Wakefield which include a mix of vehicle types from small saloon to minibuses. Vehicles are required to undertake an annual fit for purpose check up to five years old and every six months for vehicles older than that.

No specific emission standard requirements currently exist. London does operate such as scheme[45], where there are some 20,000 taxis. Although small in number in comparison with London, the number of short journeys and location of routes in the district could have a significant local air quality impact. Measures that would improve taxi emissions would not, in itself have a significant impact on local air quality, but if part of a total package of local measures, the impact would be greater.

b. Council Transport Fleet

Wakefield operates a substantial fleet of road vehicles providing a mixed use from waste collection, through highway maintenance to mobile library. The majority are diesel fuel based and have a range of ages and thereby emission levels. The fleet is being progressively upgraded and converted to Euro IV emission standards but is dependent on available resources. Alternative bio-fuel is being increased from 5% to 10% but this although "carbon friendly" is not likely to improve local air quality and in some areas is producing additional particulate pollution.

As part of central government audit of local authority services and impacts an air quality national indicator has been produced (NI194) as well as demonstrating sustainability[46]. The indicator requires local authorities to demonstrate a "reduction in NOx and primary PM_{10} emissions through the authority's estate and operations". Guidance to local authorities says that:

> 5 While local authorities continue to make improvements to air quality under the local air quality management system, many authorities will be able to make further improvements across their entire area, and not just in designated air quality management areas, as part of the Government's new performance framework. Reducing emissions from local authority estates and operations, working with local strategic partners, will not only bring real improvements to air quality, but will mean local authorities and their partners lead by example, both as exemplars for individuals and businesses to follow, and for individual authorities to act as exemplars among other authorities.

The first baseline report covering 2008 (January to December) is required by April 2009.

[45] http://www.tfl.gov.uk/
[46] http://www.defra.gov.uk/environment/airquality/local/indicator.htm

c. Emission standards for buses

The introduction of increasingly stringent European emissions standards has meant that new buses are increasingly cleaner. However, unless operators are encouraged to retrofit old buses with pollution control equipment the level of the number of buses with the more stringent emission standards may remain low. Minimum emission standards written into Council contracts for supported bus services, for example education departments for school buses, would have an important impact on local air quality.

d. Low Emission Zone (LEZ)

LEZs are defined areas that restrict entry to vehicles meeting certain emissions criteria or standards. The objective is to accelerate the introduction of leaner vehicles into the fleet in order to improve local air quality. Such zones have operated in mainland Europe for many years and have recently been introduced in London for lorries, buses and taxis. The question remains as to the effectiveness of such schemes in terms of balancing costs of enforcement and management against the level of air quality improvement.

The proximity of strategic highway within the authority boundary and the dispersed nature of towns would make the introduction of LEZs difficult. However, as part of a wider package of measures it may prove more successful.

e. Route Enforcement for HGVs

The air quality source apportionment results (3.3.1.) showed that the contribution from HGVs in the district to local air pollution is 1% to 12%. The strategic highway HGV contribution was much higher at 16% to 28%. The movement of freight is mainly located at new distribution centres at motorway junctions and limits air pollution to small areas. However, there remains significant movement through urban areas. There is a need for coordinated freight routing through a freight strategy that aims to:

- Establish closer working relationship with the local freight industry;
- Improve lorry routing and efficiency of freight movements;
- Reduce the impact of freight movements on the environment.

f. Reducing emissions from non-transport sources

Other sources of nitrogen dioxide in the district are industrial, commercial and domestic. The source proportion exercise indicated that these other sources contribute between 2% and 15% within the AQMAs.

Industrial

Emissions from the majority of large industrial processes in Wakefield District are already subject to strict controls under the Integrated Pollution Prevention and control (IPPC) regime. Details of current industrial process authorisations are available in the most recent air quality Progress Report[47].

Domestic Emissions/ Commercial

Emissions from domestic and commercial properties are controlled in most residential areas through smoke control orders. These prevent the burning of solid fuels such as low grade coals and wood inside premises. The majority of smoke control orders were put in place during the 1960s and 1970s and enforcement is maintained through the Environmental Health Services.

The main source of domestic nitrogen oxides emissions arises from gas appliances. These types of emissions can be controlled through encouraging and implementing energy efficiency regimes. A continuing programme of energy advice and facilities is undertaken through the Wakefield Home Energy Team[48]. In addition, Council buildings are undergoing major energy efficiency scrutiny in an effort to minimise emissions as part of achieving the Wakefield Environment Policy Statement, reproduced in appendix 6.

[47] http://www.wakefield.gov.uk/Environment/Pollution/AirQualityAndPollution/AirQuality/default.htm
[48] http://www.wakefield.gov.uk/Environment/EnergyAdvice/default.htm

g. Roadside Emissions Testing

Poor vehicle maintenance can increase levels of emissions by ten times or more. A minority of vehicles are badly maintained and produce excessive emissions. Regulations[49] are available that allow English authorities with air quality management areas to apply to the Secretary of State for Transport for power to conduct roadside vehicle emission tests. This ensures optimisation of vehicle operating conditions and thus aid reduction in emissions. In addition, the regulations permit local authorities to take action against drivers who leave their vehicle engines running unnecessarily when parked. A fixed penalty can be issued to any driver blatantly running their engine unnecessarily and who refuses all reasonable requests to switch off.

This has not been adopted within Wakefield District at the present time because of resourcing and logistics concerns.

WYLTP2 states that "emissions testing" is an action to reduce vehicle emissions although no further details of proposals are provided.

6.3.3.2 Emissions Management Measures assessment

These individual measures are unlikely to improve air quality significantly but as a package are in a move in the right direction.

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Taxis	Low	Low	Low positive	Low positive	Low positive	Short
Council Transport Fleet	Low	Medium	Low positive	Low positive	Low positive	Medium (2012)
Bus Emission Standards	Low	Medium	Low positive	Low positive	Low positive	Medium
LEZs	Low	Medium	Low positive	Low positive	Low positive	Medium
HGVs routing	Low	Low	Low positive	Low positive	Low positive	Short
Non-transport emissions	Low	Low	Medium positive	Medium positive	Low positive	Short

[49] The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002.

6.3.3.3 Emissions Management Actions

A taxi emissions strategy that includes an analysis of the economics, the potential financial support mechanisms and progressive introduction of tighter standards is recommended.

A tightened fit for purpose mechanical check of taxis that includes emissions checks to ensure that they meet the current vehicle standards as well as reducing the taxi fleet age will be investigated

Ensure that the national air quality indicator is achieved as soon as practicable and continued reduction in emissions from Council vehicles and buildings is demonstrated.

Ensure that there is a progressive increase in the number of buses meeting the more stringent emission standards as well as reducing older vehicles through WYLTP and METRO.

The air quality outcomes arising from the London LEZ should be evaluated and assessed for West Yorkshire (through the WYTEG) for consideration in future LTPs.

An assessment of HDV movements through the main urban areas is recommended that can be used to formulate a routing system that maximises efficiency and minimises trips through residential locations.

Further support is required for Environmental Health Services to maintain their enforcement of clean air legislation as well as improving liaison with the Home Energy Team in data gathering.

A bid for funding through the Air Quality Grant process has been made for a screening road emissions survey in Wakefield District to establish an indication of current vehicle emissions. A repeated exercise would then be undertaken following specific action plan measures to aid improvement assessment. Further support and feasibility study of a WYLTP supported study is recommended.

A reconsideration and reassessment of the non adoption of the roadside emissions regulations is proposed to include resourcing and personnel implications.

6.3.3.4 Promoting & Providing Alternatives

Many of the measures under this heading have been discussed within the WYLTP framework. These being:

- The provision of park & ride;
- The promotion and availability of more walking and cycling facilities;
- Quality bus partnerships to provide improved bus facilities;
- Travel plans for schools, businesses and housing developments.

Other measures identified as having potential positive impacts on local air quality include: increased pedestrian areas in urban areas; developing Home Zones; introduction of flexible working/ school hours; potential use of local canals and major watercourses.

a. Increased Pedestrian Areas

Increasing pedestrian areas will dramatically improve local air quality in those locations. However, many potential pedestrian zones are within the commercial centres where few residential areas exist. But with modern brownfield regeneration schemes within urban centres a large proportion is given to a mixed commercial and housing development where pedestrianisation would have greater application.

Pedestrianisation is seen as negative for local business, although businesses that rely on passing trade often do better in pedestrianised areas. A balance of easily accessible public transport linking with pedestrian areas is required. The Trinity Walk development in Wakefield city makes extended provision for pedestrian priority and attempts to reduce delivery accessibility[50]. Similarly the Pontefract and Castleford regeneration schemes also include considerable efforts to increase the level of pedestrianisation.

b. Home Zones

Home zones are residential streets in which the road space is shared between vehicle drivers and other road users, with the wider needs of residents (including people who walk and cycle, and children) in mind. The aim is to change the way that streets are used and to improve the quality of life in residential streets by making them places for people, not just for traffic. Changes to the layout of the street should emphasise this change of use, so that motorists perceive that they should give priority to other road users.

[50] http://www.wakefield.gov.uk/Planning/Regeneration/Wakefield/MarshWay.htm

A trial zone supported by WYLTP was developed in an area of Wakefield City that is commonly used for local school runs and “rat runs” between two major commuter roads. A lower speed limit is combined with changes to the road structure and street furniture to include traffic calming measures, paving, bollards, tree and shrub planting. An area previously used as car parking has been converted to community space including seating, planting and enhanced lighting. The success of the scheme has been challenged by the small scale of the zone which limited the degree of community involvement and control of their environment.

c. Flexible working/ school hours.

The introduction of more flexible working hours or encouragement for more home working can be used to reduce congestion, through spreading and reducing peak hour traffic. There are likely to be positive and negative social impacts: generally home working could enable people to work more flexibly, encouraging recruitment and staff retention. However, isolation of staff may have negative social implications as well as potential health and safety risks.

A large part of Wakefield District Council operates a “work life balance” system where there are no core hours of operation and the staff have flexibility to work between the hours of 7am and 7pm. In addition, staff have the option of working from home and/or working at drop-in centres established throughout the district. This has resulted in an estimated 127,000 commuting miles being saved.

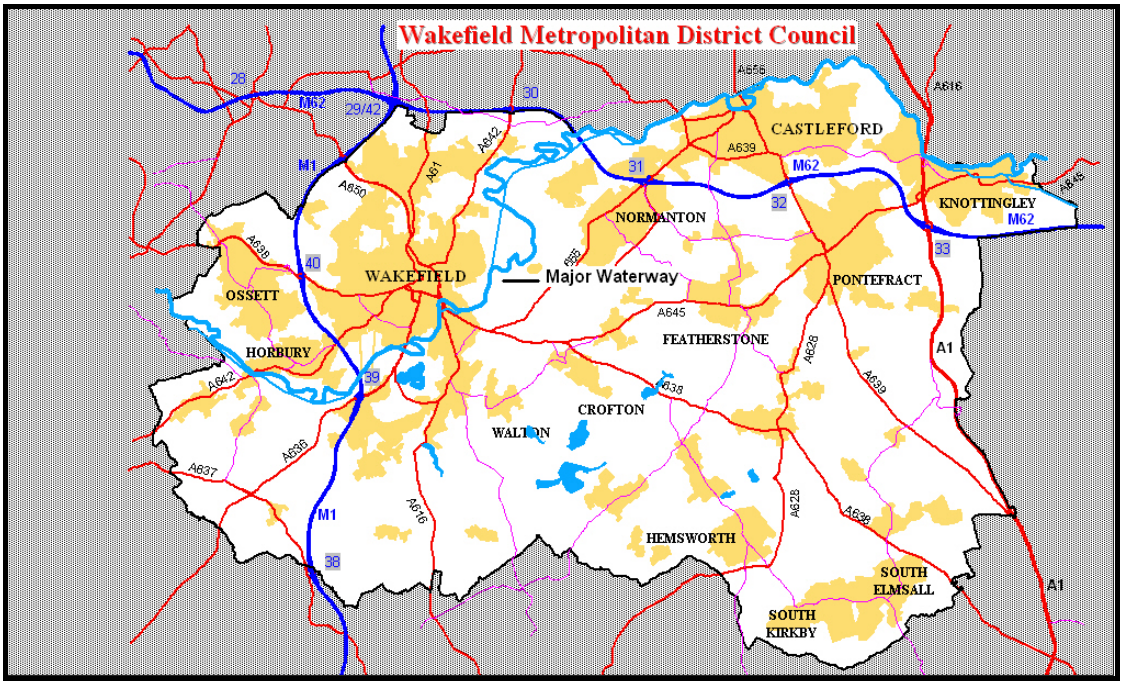
Flexible school operating hours and holiday periods again has the potential for spreading peak period road congestion but again may have significant negative social impacts.

Employers may be unwilling to operate to such varied start and stop hours.

d. Use of waterways

Wakefield district contains a number of important navigable waterways linking major towns (figure 31).

Figure 31 MAJOR WATERWAYS IN WAKEFIELD DISTRICT



Some use is made of the waterways, particularly the Aire & Calder Navigation for bulk freight movements and a small amount of pleasure and tourist movement occurs through the District. There is potential to increase this level of use when linked with rail and road connections. This potential is shown in the Local Development Framework strategy:

d. Better use will be made of the inland waterway and rail networks in the district, including the Aire & Calder navigation and the regional rail/road transfer facility at Wakefield Europort . Opportunities will be taken to link major freight movement origins and destinations to the rail network. Developments which generate large volumes of freight traffic or involve the transport of bulk materials will include, or be located close to, inter-modal transfer facilities, rail freight facilities or wharves and make use of rail or water for freight movements, wherever practical. Sites which are used or suitable for inter-modal transfer facilities, rail freight facilities and the loading and unloading of water-borne freight will be protected for these uses and water and rail freight connections to existing industrial sites will be retained wherever possible and the development of new inter-modal transfer facilities, new rail sidings and rail freight facilities and new wharves will be encouraged;

There is potential for water taxi systems, particularly in the urban centres.

6.3.3.5 Promoting & Providing Alternatives Measures Assessment

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Pedestrian areas	Medium	Low	Low Positive	Low Positive	Low Positive	Short (2009)
Home Zones	Medium	Low	Low Positive	Low Positive	Low Positive	Short
Flexible working	Low	Low	Low Positive	Low Positive	Low Positive	Medium (2011)
Use of waterways	Low	Low	Low Positive	Low Positive	Low Positive	Short

6.3.3.6 Promoting & Providing Alternatives Measures Actions

Investigation of the potential for expansion of local urban pedestrian areas and home zones throughout the district will be made. The two measures can act together in persuading both a reduction in car traffic and modal shift. The identified regeneration projects need to ensure that priority is given to the pedestrian and local resident. Future projects will require the same priorities through the LDF and development control process.

Flexible working as part of a “work life balance” philosophy is already working within the Council. Promoting the successes to local business and services that are influenced by the Council, through human resources should be encouraged.

Investigation of the potential for utilising the navigable waterways in the district that could link both urban regeneration and commuting traffic into town centres will be made.

6.3.3.7 Raising Awareness

“What can we do?” or “I don’t envy your job” were the sorts of answers given when the public were asked about controlling transport emissions and improving air quality in an information campaign carried out in Wakefield City shopping centre. Large amounts of time, effort and money are being used to identify the problems and possible solutions. Some harsh decisions will have to be made by all transport users as to how best to improve the air quality and ultimately their health. The decisions cannot be “blamed” on the Council. A consensus has to be reached with all users. Public engagement is vital in addressing future actions and local environment empowerment a necessity in achieving local air quality improvements.

The WYLTP process has undergone considerable public involvement through seminars, exhibitions, workshops and focus groups. This will continue as new projects arise and existing projects move forward.

The Council's local air quality management process is described in detail on the Council's website[51]. This forms the focus for all aspects of the work and is updated as often as possible. Expansion of the site is limited because of strict design and operation conditions. The addition of linked websites providing specific targeted information, such as young children and education, is being investigated.

Identified awareness campaigns include: Targeting schools and local businesses; Health Promotion and information; Interactive information points.

a. Targeting Schools and Local Businesses.

In addition to implementing travel plans, air quality awareness campaigns in association with other campaigns such as road safety and awareness, health, environment and citizenship, could encourage further modal shifts away from car use and ensure that future generations are thinking about their impact.

Again, providing information to local businesses should be undertaken in conjunction with travel plans in order that real change can occur. Air quality can again link with other campaigns aimed at improving the viability of businesses and ensuring a sustainable environmental impact.

b. Health Promotion and Information

Promotion of good health can be related to both links between air pollution and health, and also in encouraging people to be more active and involved. Collaboration with external organisations such as the Primary Care Trust, local British Heart and Lung Foundations, and local asthma groups, is important in improving awareness on the health impacts of local pollution and helping to provide solutions.

The Council operates a website that provides air quality forecasts linked to general health information[52].

[51] http://www.wakefield.gov.uk/Environment/Pollution/AirQualityAndPollution/AirQuality/default.htm
[52] http://www.cerc.co.uk/YourAir/Wakefield/

An alert service is being launched on 1st July 2008 that provides air quality forecasts and specific health information via email, txt and voicemail to individuals at risk of increased health problems associated with elevated air pollution and adverse weather conditions.

c. Interactive Information Points

The use of information technology to increase the provision of information through a range of public information points in on the increase. There is a great potential for using roadside, car park, bus stop and town centre information points, in combination with traffic management and CCTV facilities, to inform and advise travellers of: congestion; appropriate parking; travelling alternatives; the current and forecast local air quality.

Council information points are currently being considered as part of an improved public engagement strategy. This will enable air quality public information to be available through a "one point" system rather than a separate display.

6.3.3.8 Raising Awareness Measures Assessments

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
Schools & Businesses	Low	Low	Low Positive	Low Positive	Low Positive	Short
Health Promotion	Low	Low	Medium Positive	Medium Positive	Medium Positive	Short
Intelligent Information points	Low	Low	Low Positive	Low Positive	Low Positive	Short

6.3.3.9 Raising Awareness Measures Actions

A feasibility study is proposed of the potential for utilising the WMDC Travel Awareness and Road Safety facility, Environmental Health and associated training bodies to establish school and business environmental training.

Improved relationships with the PCTs is proposed that enables a greater understanding of the influence of environmental pressures on health. Projects such as evaluating the increased cost to health services of poor air quality associated with strategic highways (not influenced by local authority), and the impacts of health warnings to targeted groups will aid the effectiveness and efficiency of improvement actions. Joint promotional working already exists and will be expanded to accommodate transport and air quality where possible.

The potential for providing a network of intelligent information points for transport, air quality , general environmental and local authority information will be investigated in conjunction with HA, WYLTP and WMDC.

6.3.3.10 Planning and Land Use Development

Transport and land use are inextricably linked. By shaping the pattern of development and influencing the location, scale, density and mix of land uses, planning can help to:

- Reduce the need to travel;
- Reduce the length of journeys, and;
- Make it safer and easier for people to access jobs, shopping, leisure facilities and services by public transport, walking and cycling.

Both the proposed Local Development Framework and Development Control Policy described earlier (section 4.2.5) now contains specific air quality policies aimed at producing a sustainable, improved level of local air quality. In addition, a draft supplementary planning document (section 4.2.6) detailing the authority's policy on developer contributions to local development includes contributions relating to measures to improve local air quality has been produced.

Specific air quality planning and development guidance (section 4.2.5) has been produced for planners and developers that describes an assessment process designed to minimise deterioration of local air quality through the planning and development process.

These local policies are echoed in WYLTP 2 policies, in particular under the congestion measures, "C7 Promote Sustainable Land Use Planning Policies and Practices". Where guidance for developers on WYLTP measures is to be provided. In addition, Metro is tasked with working with local authorities to produce technical guidance for new development and public transport.

6.3.3.11 Planning and Land Use Development Measures Assessment

Measure	Effects	Cost	Feasibility			Timescale
			Social	Environmental	Economic	
LDF Policies	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short (2009)
Planning Guidance	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short
Planning Obligation	Medium	Low	Medium Positive	Medium Positive	Medium Positive	Short

6.3.3.12 Planning and Land Use Development Actions

Ensure that draft LDF air quality policies are implemented and continue and improve relationships with members of the Spatial Policy and Regeneration teams dealing with significant developments within the District.

Provide further support for Environmental Health Services in developing planning guidance and training for both planners and developers. Existing air quality planning guidance, once formally approved by Planning, will be amended and updated as required from continuing consultation.

Ensure that the Planning Obligation document once published provides the necessary funds for the identified measures to improve local air quality. In addition, continue and improve relationships with officers and developers dealing with planning obligation commitments.

SECTION 7

PRIORITISATION AND FINANCING

The ability and opportunity for implementing this Action Plan depends primarily on securing adequate funding and sufficient revenue resources to fund the staff required to deliver the programme of measures. The programme of measures in turn requires prioritisation in order to justify and determine where financing should be targeted.

7.1 PRIORITISATION

The measure assessments undertaken above, to some extent, provide a method of prioritising air quality actions. Ideally, the greatest improvement in air quality with the least cost and minimum impact on economic or social development would be the obvious choice. However, as can be seen by the range of above results that this scenario is rarely produced. Two methods of prioritisation have been used to select a hierarchy of actions in the WYLTP process and the Wakefield Transport Strategy described earlier (section 4.2.4).

7.1.1 WYLTP2

The WYLTP has undergone a pseudo measures prioritisation as part of the funding bidding process. The WYLTP strategy undertakes a selection process for identifying the efficacy of the programme measures and in doing so produces a form of prioritisation. “Corridors and areas have been selected for treatment as a package where an integrated approach clearly delivers the greatest benefits”. The corridors and area packages contain the measures that then undergo a rigorous selection through a systematic approach following the steps below:

- Identification of baseline conditions;
- Identification of current issues;
- Identification of future issues;
- Assessment of “Do Minimum” conditions;
- Assessment of potential measures;
- Setting out of proposed measures and how they specifically address LTP objectives and link to current/future issues;
- Specific appraisal of the impact on congestion, accessibility, safety and air quality;
- Measures to reinforce the strategy;
- Quantification of their contribution to the targets.

The concluding priority for the strategy is that "The benefits for air quality improvement and greenhouse gas reduction mainly come from schemes aimed at tackling congestion and modal choice. The scale of change of transport emissions will rely almost entirely on the level of congestion and of motor vehicle usage". Therefore, "almost all of the traffic management and many of the public transport capital and revenue programmes help to tackle congestion".

7.1.2 Wakefield Transport Strategy

The Transport strategy described earlier (section 4.2.4) sets out the framework for the development of transport improvements across the District. The problems identified in the strategy (appendix 2) have resulted in specific interventions being produced linked to the WYLTP2 and other regional and local policies and strategies. The majority of these interventions have been integrated into this action plan as measures with actions following. The interventions are detailed in appendix 7. The strategy interventions have also been phased as short, medium and long term for implementation which has been used throughout this plan.

A pseudo prioritisation has been undertaken in the strategy to aid delivery of the interventions. The process assigns a score to each intervention on the basis of:

- The number of issues/problems the intervention addresses;
- The number of objectives (i.e. accessibility, environment, congestion, public transport and safety) the interventions helps to meet.

The strategy also recognises the difficulties in attributing and assigning weightings for other levels of importance and assumes that:

- "all issues are equally important;
- all interventions have equal ability to address the issues, and;
- all objectives have equal importance but that an intervention is prioritised if it helps to meet a range of objectives"

Finally, the strategy cautions that the "absolute scores are not used to choose between interventions; rather they should be used only as a guide to highlight interventions with most merit".

7.2 FINANCING

The majority of funding for the implementation of measures identified in this Action Plan is that of WYLTP 2. Other measures not identified in WYLPT2 are funded through a variety of sources with the majority related to the local authority. Future sources of funding will include:

- utilising planning obligations to their fullest to provide developer contributions for specific measures in this action plan;
- European projects funding is available for innovation in transport planning and solutions and could be utilised through WYLTP;
- Partnership funding that targets specific measures in this action plan and brings a wider stakeholder involvement in to the plan. Transport operators, local businesses and retailers working together to focus resources;
- Direct charging through road pricing, workplace charging, off-street and on-street parking charges.

7.2.1 WYLTP2 Funding

The Department for Transport (DfT)[53]provides local authorities with their main source of capital funding for investment in local transport. Each LTP area is provided with "Planning Guideline" budgets for integrated transport and for maintenance for each year in the LTP period. This does not include funding for Major Schemes costing more than £5m, exceptional schemes and emergency maintenance funding. The current integrated transport block allocation is shown below.

LOCAL AUTHORITY	APPORTIONMENT OF PLANNING GUIDELINE (£ MILLION)					TOTAL
	2006/07	2007/08	2008/09	2009/10	2010/11	
Bradford	4.438	4.143	4.381	4.692	5.026	22.680
Calderdale	2.396	2.064	2.068	2.217	2.377	11.122
Kirklees	3.837	3.454	3.585	3.840	4.112	18.828
Leeds	5.871	5.802	6.506	7.084	7.701	32.964
Wakefield	3.279	3.485	3.943	4.230	4.536	19.473
Metro	8.670	8.198	8.778	9.456	10.179	45.281
West Yorkshire	28.491	27.146	29.261	31.519	33.931	150.348

The strategy elements that have received full or part funding relating to this action plan include:

[53] http://www.dft.gov.uk/

"Tackling Congestion"

- C1 – Encourage modal shift to public transport;
- C2 – Manage the demand for travel;
- C3 – Make the best use of the existing capacity;
- C4 – Improve highway network, and;
- C5 – Encourage more cycling and walking.

"Better Air Quality"

- AQ1 - Alternatives to the car and traffic demand management measures;
- AQ2 – Encouraging more sustainable travel;
- AQ3 – Actions to reduce vehicle emissions, and;
- AQ4 – Measures to adapt to the effects of climate change.

The funding allocations are then given to individual measures costing over £200,000 within local authority area. The Wakefield District allocation is shown below (table 10).

Table 10 SUMMARY LTP CAPITAL EXPENDITURE FOR WAKEFIELD DISTRICT

Scheme Category	Planned Expenditure (£000s)					
	2006/07	2007/08	2008/09	2009/10	2010/11	Net Total
Bus Priority/HOV	730	630	630	1,480	1,320	**4,790**
Public Transport Interchanges	0	0	0	0	0	**0**
Park and ride	0	20	0	0	0	**20**
Bus infrastructure (exc. interchanges)	317	562	738	60	283	**1,960**
Cycling Schemes	275	300	290	300	320	**1,485**
Walking Schemes	182	390	375	875	1,075	**2,897**
Travel Plans	60	60	75	75	75	**345**
Local Safety Schemes	600	125	750	175	0	**1,650**
Safe Routes to School	250	250	250	250	300	**1,300**
Road crossings	75	75	75	75	75	**375**
Traffic Management and Traffic Calming	490	573	410	490	438	**2,401**
Local Road Schemes	0	100	0	200	400	**700**
Miscellaneous	300	400	350	250	250	**1,550**
Integrated Transport Total	**3,279**	**3,485**	**3,943**	**4,230**	**4,536**	**19,473**
Principal Roads	621	636	672	711	752	**3,392**
Non Principal Roads	1,098	1,120	1,176	1,234	1,296	**5,924**
Unclassified Roads	1,047	1,068	1,122	1,178	1,237	**5,652**
Bridge and wall strengthening and maintenance	483	491	517	544	571	**2,606**
Miscellaneous	150	152	154	156	158	**770**
Maintenance Total	**3,399**	**3,467**	**3,641**	**3,823**	**4,014**	**18,344**
Grand Total	**6,678**	**6,952**	**7,584**	**8,053**	**8,550**	**37,817**

This is further categorised for Wakefield City, the "Five Towns" and South East with specific measures (tables 11 to 13)

Table 11 WAKEFIELD CITY ALLOCATIONS BELOW £200,000

MEASURES: TITLE AND DESCRIPTION	RELEVANT STRATEGY ELEMENTS	EXPENDITURE (£ 000s)						
		2006/07	2007/08	2008/09	2009/10	2010/11	NET TOTAL	GROSS TOTAL
Doncaster Road, Wakefield QBC/showcase route schemes	A1, A2, A4 C1, C3, AQ1	500	500				1,000	
Horbury Road, Wakefield Busways/bus lanes	A4, C1 C3, AQ1	100	100				200	
Denby Dale Road, Wakefield HOV Lanes	A4, C1, C2, C3, AQ1					500	500	
Kirkgate Bus Gate, Wakefield Rising bollards giving bus priority	A1, C1, AQ1				600		600	
Ings Road/Westgate, Wakefield Junction improvement assisting bus movements	A4, C1, AQ1		187	313			500	
Ings Road/Denby Dale Road, Wakefield Local Safety Scheme	S1, S4			750			750	
A638 Doncaster Road, Wakefield Low Bridge Warning equipment	A2, A3, S1, M2	100	125				225	
A61 Chantry Roundabout, Wakefield Local Road Scheme	S1, S4				200	400	600	
Wakefield Sub-Urban Area Local Safety Scheme, area wide	S1, S4				200		200	
Wood Street, Wakefield Pedestrianisation	A1, A2, C5, AQ1				400	750	1,150	
North Wakefield Gyratory Junction improvement assisting bus priority, cyclists and pedestrians	A1, A2, A4, C1, AQ1			450	730	820	2,000	

Table 12 FIVE TOWNS ALLOCATION BELOW £200,000

MEASURES: TITLE AND DESCRIPTION	RELEVANT STRATEGIES	EXPENDITURE (£ 000s)						
		2006/07	2007/08	2008/09	2009/10	2010/11	NET TOTAL	GROSS TOTAL
Jubilee Way, Pontefract Local Safety Scheme	S1, S4	400					400	
Airedale Estate, Castleford Local Safety Scheme, area wide	S1, S4	200					200	
Castleford Interchange Integrated Transport Scheme Covering design and development costs of the major scheme to secure major scheme funding approval for implementation (Metro Scheme). Scheme includes a new combined bus/rail interchange, pedestrianisation of a further part of Carlton St., and improved pedestrian links from the new interchange to the town centre will encourage greater use of public transport	A1, A4, C1, C5, AQ1	450	710				1,160	1,160

Table 13 SOUTH EAST WAKEFIELD ALLOCATION BELOW £200,000

MEASURES: TITLE AND DESCRIPTION	RELEVANT STRATEGIES	EXPENDITURE (£ 000s)						
		2006/07	2007/08	2008/09	2009/10	2010/11	NET TOTAL	GROSS TOTAL
South East Wakefield Local Safety Scheme, area wide	S1, S4		200				200	

The revenue implications of the schemes within WYLTP2 have been addressed and are funded through revenue incomes and other sources when available.

7.2.1.1 Major Scheme Funding

Major scheme funding is provided following bids through the LTP to DfT. Successful bids in WYLTP1 that relate to Wakefield include:

- Hemsworth A1 Link Road;
- Glasshoughton Coalfields Link Road, and;
- Castleford Town Centre Scheme.

WYLTP2 major schemes submission relating to Wakefield includes:

- Wakefield Westgate Station (estimated cost £7million);
- Yorkshire Bus Initiative (estimated cost £70million);
- MYBus Extension (estimated cost £15million);
- A61 North Wakefield Gyratory/ Inner Ring Road (estimated cost £8million);

Proposals for the WYLTP3 major scheme bid to DfT covering the period 20011 to 2016 have been considered. Those relating to Wakefield include:

- Wakefield Eastern Bypass (estimated cost £20million), and;
- South East Link Road (estimated cost £30million).

SECTION 8

CONSULTATION, IMPLEMENTATION AND MONITORING

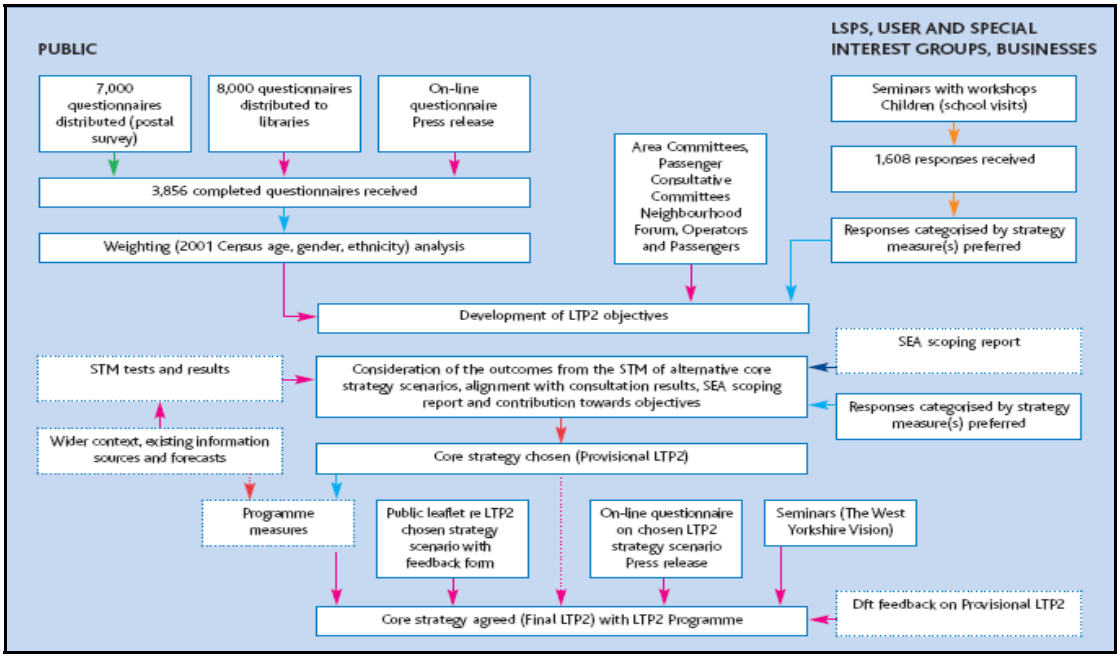
8.1 CONSULTATION

Consultation in the form of active participation and information provision and dissemination will be vital for the effective implementation of options identified as part of the Action Plan. Any individual option or package of options, to improve local air quality will require the backing and support of stakeholders i.e. local businesses, public transport providers, members of the public. As such, stakeholders will need to take "ownership" of the action planning process and feel part of the overall decision making process.

The WYLTP has already undergone considerable consultation to arrive at the final strategy. It included a wide range of stakeholders from businesses to local children with around 4,000 responses from the general public alone. The consultation process included:

- Workshops with local authorities, special interest groups, NHS trusts, transport and infrastructure operators;
- A questionnaire mail-out and internet based questionnaire to engage the public, and;
- Public transport passengers.

The process is shown below.



With regard to this Action Plan and the integration process with the LTP, there are two options: either extra consultation not within the realms of the LTP or additional LTP consultation. Further LTP consultation would require co-ordination of the Action Plan integration from all five member authorities. Alternatively, member authorities producing action plans could utilise their existing consultation process before integration into the LTP.

8.1.1 Consultation Actions

It is recommended that a formal consultation process is devised that utilises either the existing WYLTP consultation framework and/or individual member consultation processes as part of the integration of the Actions Plans from the partnering authorities

8.2 IMPLEMENTATION

An important component of the Action Plan is establishing mechanisms to ensure that the selected measures are implemented within the stated timescales and with that these measures are proving effective in delivering the expected improvements to air quality.

The main objective of the Action Plan is to reduce air pollution specifically within the designated AQMAs and over a wider geographical urban area as part of a sustainable development programme. In the short term however, this may be difficult to judge due to the effect of varying weather conditions on measured pollutant concentrations.

The requirement from DEFRA for an annual action plan progress report will provide further impetus for the implementation of measures identified, costed and with funding in place. In addition, the funding process of the LTP from DfT requires a similar progress report detailing the current air quality management status (section 1). Failure to demonstrate an effective action plan could result in LTP finances being restricted or curtailed until an adequate plan is produced.

Other measures included in the Action Plan but not allied to WYLTP2, relate mainly to information provision and wider planning measures. These are deemed important to the overall improvement in air quality in the area, although they are unlikely to have a demonstrable impact on air quality in the timescale up to 2011. This is primarily because of the longer time period required for full implementation and the need to "marry into" other projects and measures.

8.3 MONITORING

The monitoring framework of the WYLPT2 includes indicators (mandatory and local) and targets to achieve the objectives. Not all indicators have targets but the vast majority are monitored annually. The current WYLTP2 indicators and targets are described in appendix 8. The specific air quality indicators and associated targets are shown in table 14

Table 14 WYLTP2 AIR QUALITY INDICATORS AND TARGETS

Reference	Indicator	Local Target to 2010/11
Mandatory M12	NO_2 annual average concentrations in AQMAs	10% reduction NO_2 in the Leeds AQMAs. Targets will be set for other AQMAs as they are declared during LTP2
Local L7	Annual road traffic emissions of NOx across West Yorkshire principal road network	20% reduction in NOx from 2004/05 to 2010/11
Local L8	Annual road traffic emissions of CO_2 across West Yorkshire principal road network	No increase in CO_2 emissions from 2004/05 to 2010/11

The mandatory target does not take into account weather changes which could dramatically change the annual average nitrogen dioxide concentration without the influence of WYLTP2 measures. Further assessment of a more appropriate indicator is required that relates more closely to WYLTP" measures impacts, such as a reduction of NOx emissions within AQMAs.

Annual statistics are produced for the indicators to review the progress towards the targets. The mandatory indicator relies on local authority continuous monitoring data within AQMAs as part of their local air quality management duties. The local indicator statistics are derived from air quality modelling (screening and detailed) and specific traffic counts on principal roads, using local authority facilities.

8.3.1 Monitoring Actions

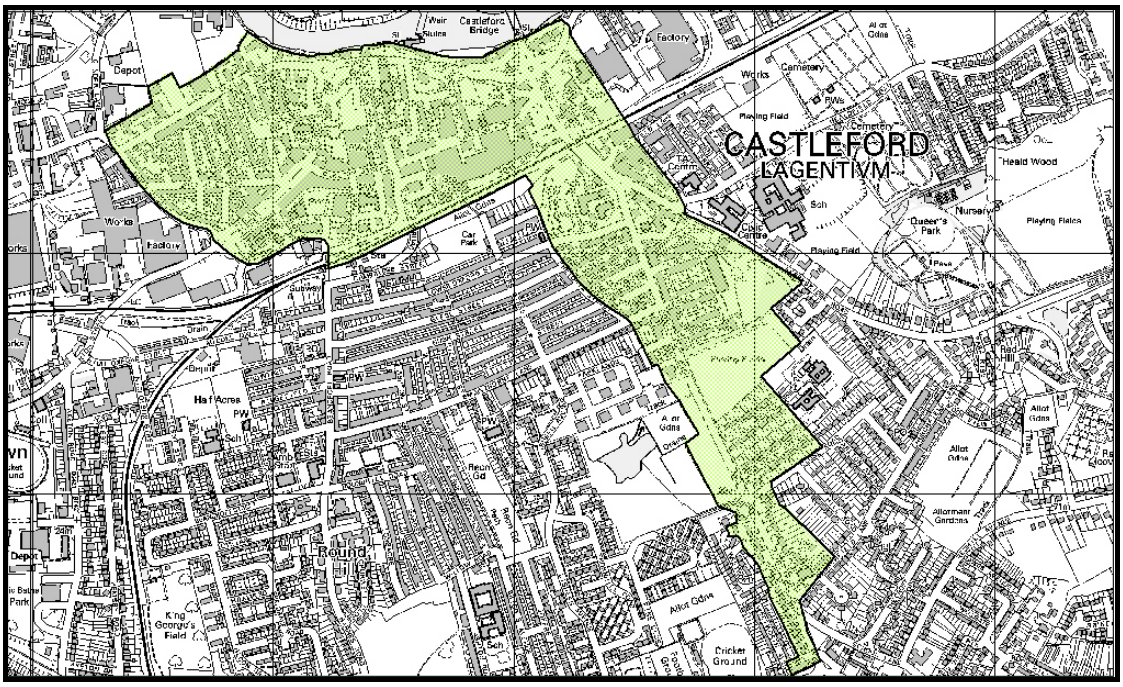
An assessment is recommended of an alternative LTP air quality mandatory indicator that reflects more closely, the impact of WYLTP2 measures on local air quality.

A more formalised approach to the provision of monitoring and modelling capability for WYLTP is recommended. The local air quality management review and assessment process may not provide the specific monitoring and modelling details and additional more specific, capability may be required.

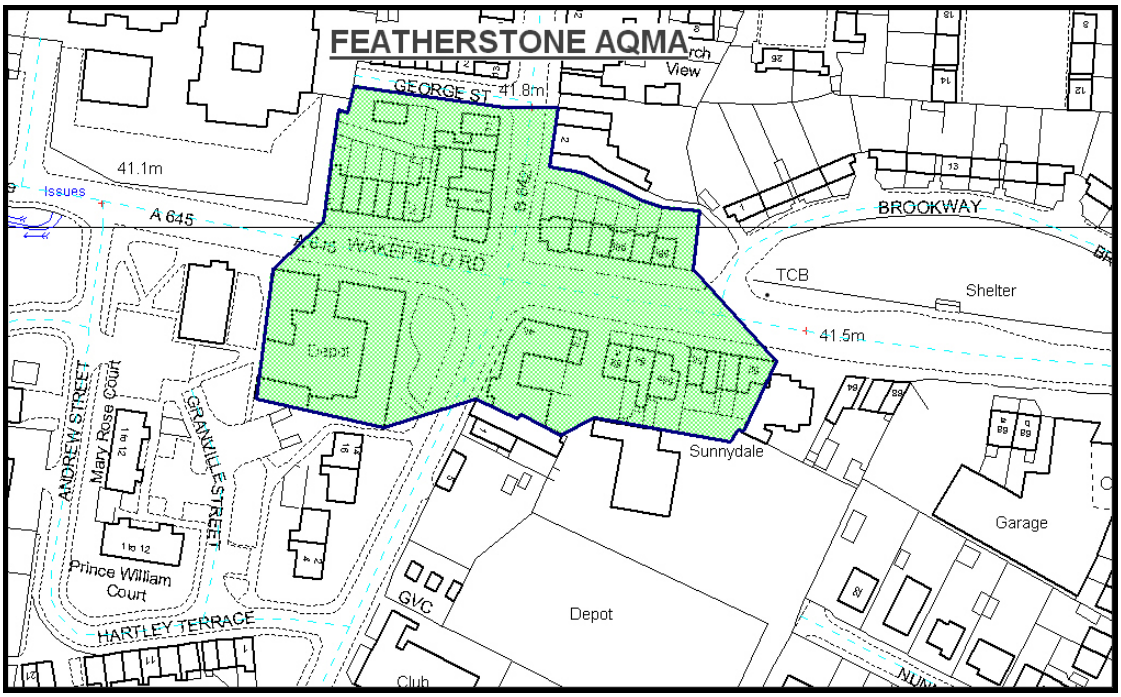
APPENDICES

Appendix 1 AIR QUALITY MANAGEMENT AREAS

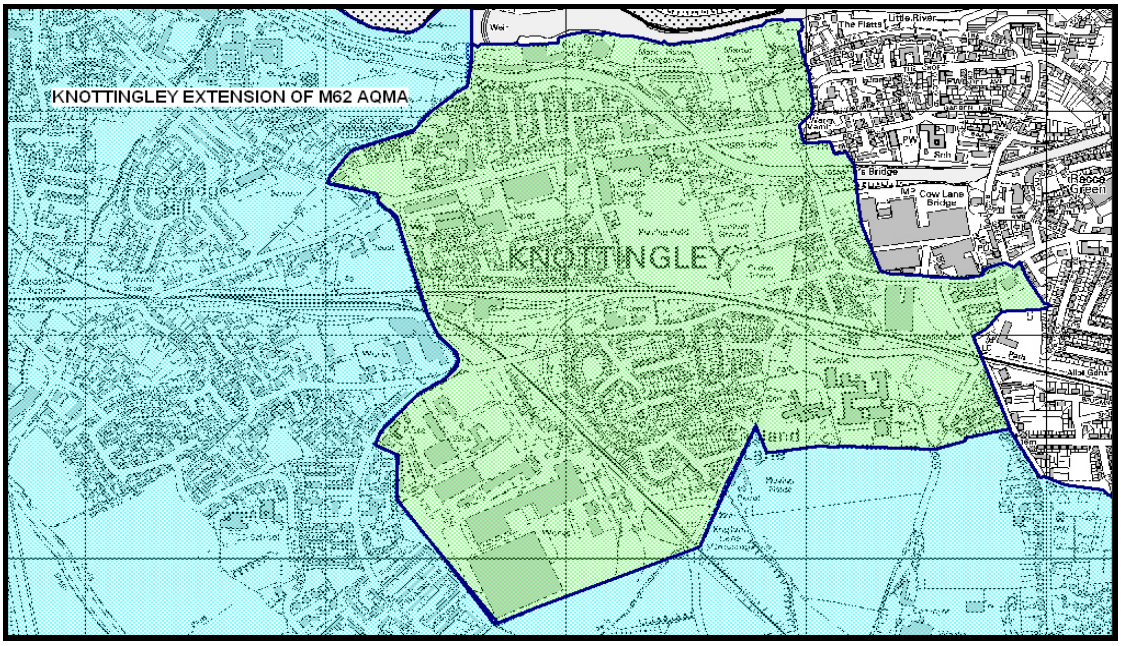
Castleford AQMA



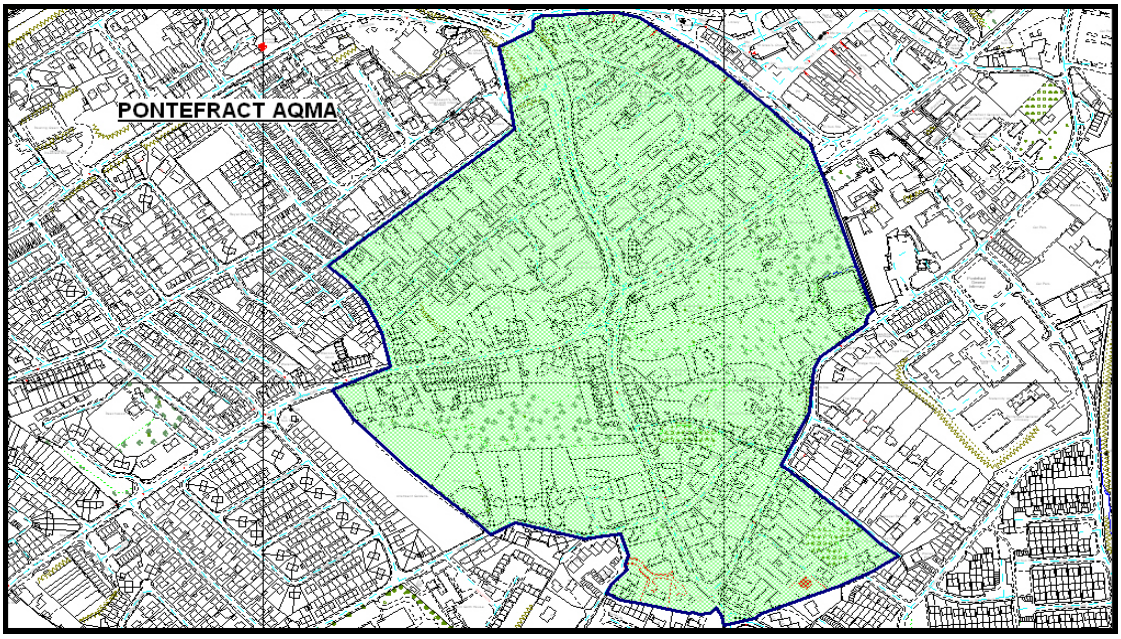
Featherstone AQMA



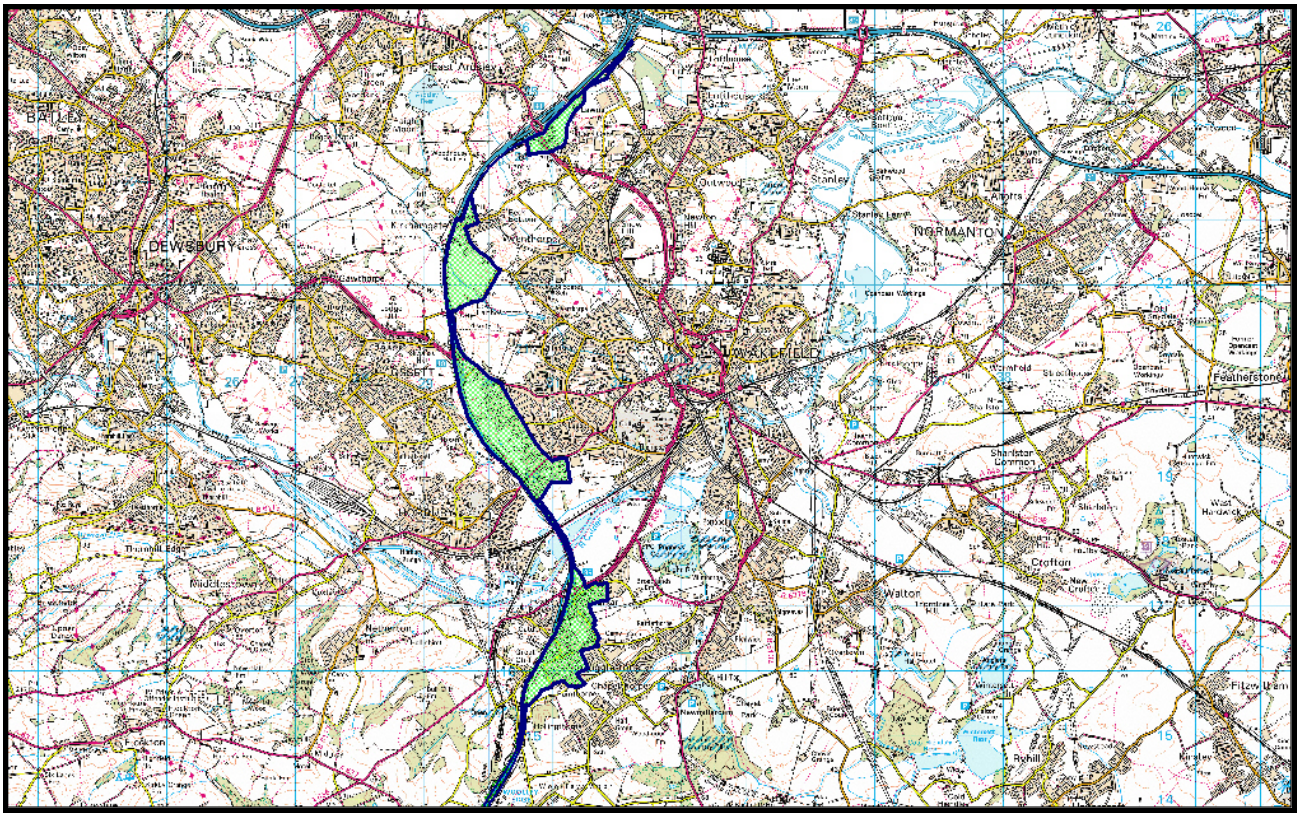
Knottingley AQMA



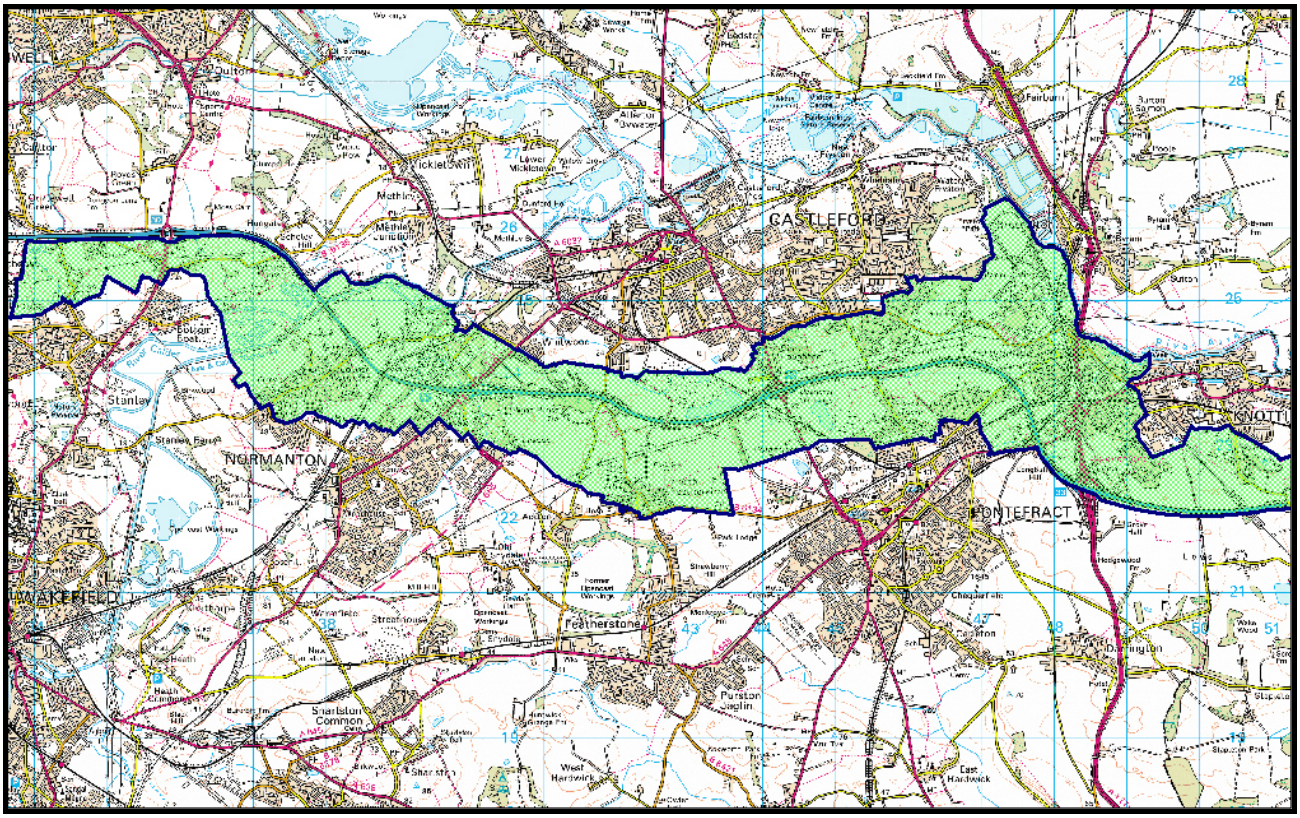
Pontefract AQMA



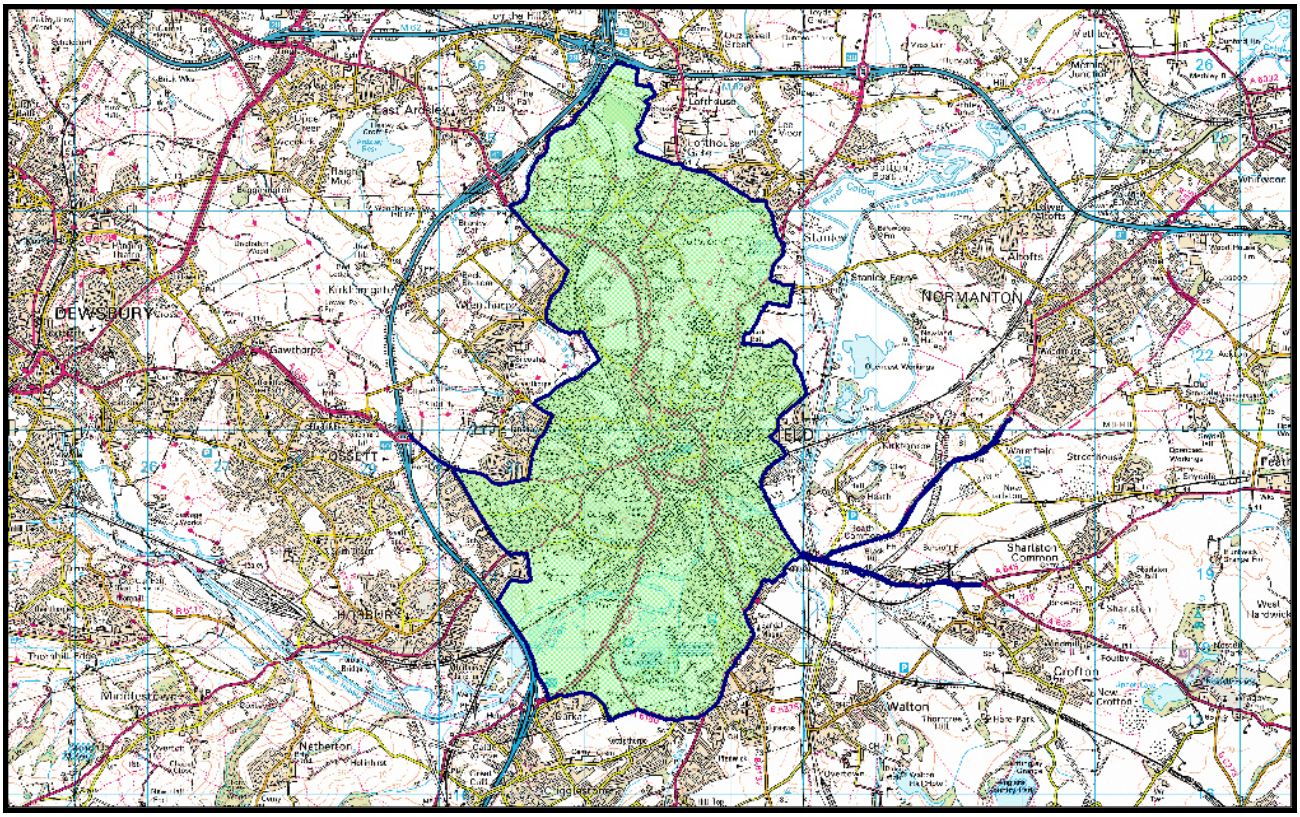
M1 AQMA



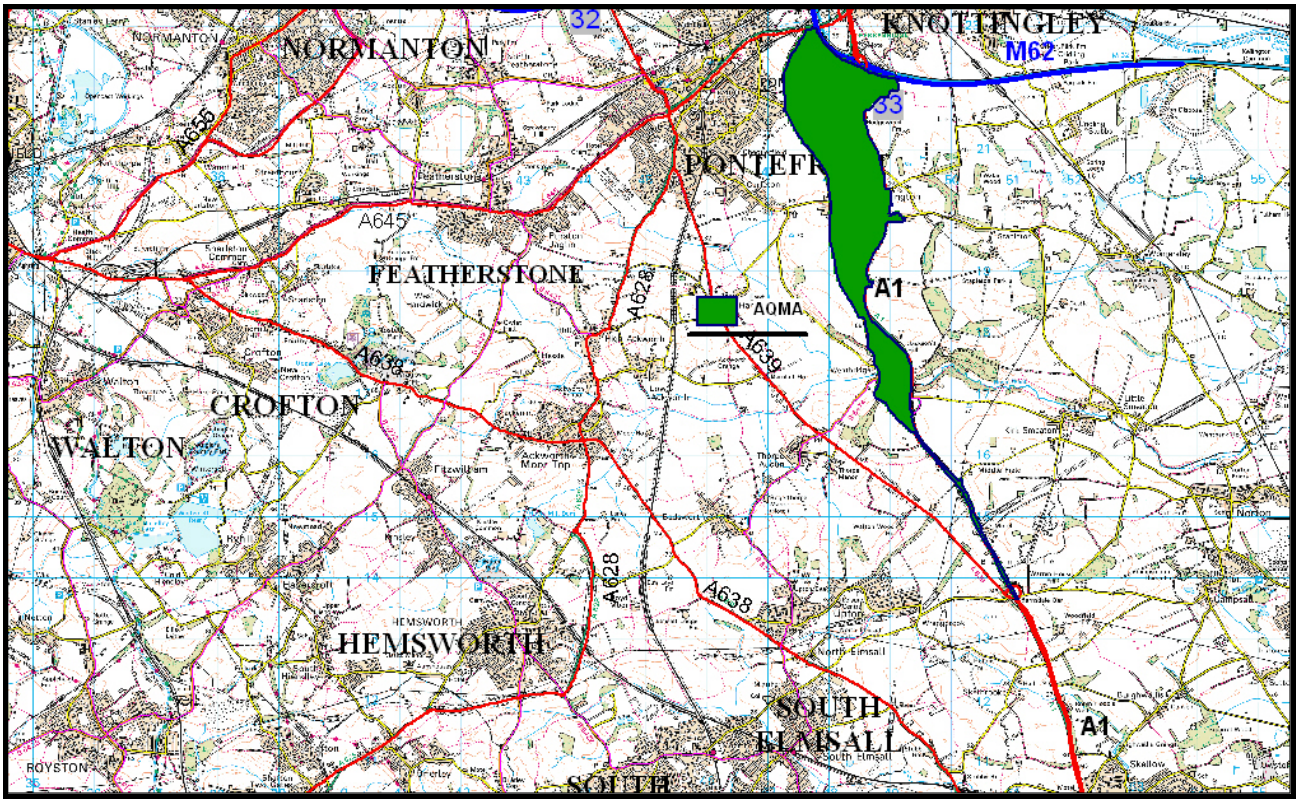
M62 AQMA



Wakefield City AQMA



A1 AQMA



APPENDIX 2 TRANSPORT PROBLEMS IN WAKEFIELD DISTRICT

NATIONAL & WEST YORKSHIRE TRANSPORT PROBLEMS

CONGESTION

Existing Issues	Emerging Issues	Root Causes	Ref.
Congestion on major strategic routes		Lack of road space capacity on the motorways. Inefficient use of available roadspace. Growth in volume of single occupancy private cars. Reliance on private cars due to increased journey lengths, more dispersed origins and destinations and motorway based (employment, retail and leisure) developments. General growth in employment in the Leeds city centre. Lack of PT alternatives / overcrowding on peak time rail services (to/from Leeds). Poor quality / lack of long distance express bus services.	**N-C1**
Congestion into Leeds city centre			**N-C2**

ENVIRONMENT

Existing Issues	Emerging Issues	Root Causes	Ref.
Climate Change and a national target for carbon emissions	Additional costs as a result of the effects of climate change	Wasteful burning of fossil fuels, particularly from vehicles due to large vehicles, single occupancy vehicles and avoidance of	**N-E1**

PUBLIC TRANSPORT

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor connectivity to neighbouring regions		Lack of good quality public transport on some routes to adjacent City Regions. Rail services between Leeds and Sheffield still slow compared to services between other similarly sized cities. Poor links to Manchester from Wakefield (no direct services)	**N-PT1**
Conflicts between local and national rail services		Lack of passing loop at Westgate station limits operational flexibility and causes delays to long distance as well as local services.	**N-PT2**
Overcrowding on rail services to/from Leeds at peak times		Lack of rolling stock to strengthen trains and no franchise commitments (in Northern franchise) to grow passenger numbers.	**N-PT3**

WAKEFIELD DISTRICT TRANSPORT PROBLEMS

ACCESSIBILITY

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor accessibility to new developments (employment) by public transport, causing reliance on the private car		Growth in employment at developments close to the motorway network, where public transport access is poor or non existent.	**D-A1**
Poor accessibility to health care from some parts of the district, including more rural areas	Poor accessibility to hospitals, due to new hospitals and NHS Trust reorganisation of service provision	Reorganisations in health care provision (doctors surgeries and hospitals) and changes to bus network, resulting in new access problems	**D-A2**
	Contracting local bus network	Decline in bus use, especially on non core corridor routes, forces bus operators to review networks and withdraw marginal services. Limited budget for supporting non-commercial services.	**D-A3**

ENVIRONMENT

Existing Issues	Emerging Issues	Root Causes	Ref.
Air Quality Management Areas (AQMAs) close to strategic routes (M1, M62, A1 and A1(M))	New and extended AQMAs (in Wakefield main urban area, Pontefract and Castleford Knottingley, Featherstone)		**D-E1**
Poor air quality in urban areas		Traffic at peak times and increasingly off peak times	**D-E2**
Noise pollution associated with traffic, especially HGVs		- excessive volumes and - high proportions of heavy vehicles (particularly on unsuitable roads)	**D-E3**
Severance effect of traffic on main roads and strategic roads			**D-E4**
Impact of traffic and transport on the "street scene" and the local environment		- demand for road space exceeding supply especially at junctions	**D-E5**

CONGESTION

Existing Issues	Emerging Issues	Root Causes	Ref.
Strategic trips using local road network instead of strategic road network		Congestion on the strategic routes caused by - growth in employment in Leeds - growth in employment at other locations close to the strategic road network	**D-C1**
M1, M62 & A1 Motorway access and diversion		Incidents and "normal" congestion, encourage strategic and other traffic to use local roads, rather than motorway	**D-C2**

PUBLIC TRANSPORT

Existing Issues	Emerging Issues	Root Causes	Ref.
Delays to bus services		Delays associated with traffic congestion extending bus journey times and reliability. Delays to bus boarding due to lack of through ticketing and lack of/poor information	**D-PT1**
Bus network doesn't serve transport needs of the local population		Historically the largest bus operators have not been addressing the underlying problems of the bus route network, with indirect routes and poor reliability.	**D-PT2**
Some vulnerable groups unable to use public transport		Poor services for elderly, and problems with some home to school travel	**D-PT3**
Problems with local rail services limiting growth in use of rail		Poor facilities at some local rail stations (including lack of car park capacity) and peak time overcrowding on some services	**D-PT4**

SAFETY

Existing Issues	Emerging Issues	Root Causes	Ref.
	Increase in speed related accidents	Measures to improve traffic flow, and possible reductions in traffic due to modal shift, may result in higher vehicle speeds	**D-S1**
		Speeding traffic, junction design issues and lack of facilities for pedestrians and cyclists	
Accidents at isolated locations		More difficult to target accidents that are not clustered together	**D-S2**

WAKEFIELD CITY & THE WEST TRANSPORT PROBLEMS

ACCESSIBILITY

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor access to hospitals from some places by public transport		Lack of bus services, indirect routes and low frequency of buses in evenings and at weekends	**W-A1**

CONGESTION

Existing Issues	Emerging Issues	Root Causes	Ref.
Excessive journey times on main radial roads into and out of Wakefield City (A638, A61, A655, A642 and A650) at peak times		- Lack of road space capacity on local roads. - Growth in volume of single occupancy private cars. - Reliance on private cars due to increased journey lengths, more dispersed origins and destinations, motorway based (employment, retail and leisure) developments. - General Growth in employment in the district, particularly in regeneration areas. - Inefficient use of available roadspace. - Lack of PT alternatives. - Poor quality / Lack of bus services across the district. - Declining public transport use and small amount of walking and cycling for short trips compared to potential.	**W-C1**
Problems for pedestrians, particularly around City centre		Lack of a joined up cycle and pedestrian network, with signing, crossing facilities and appropriate parking facilities. Poor quality / lack of bus services across the district.	**W-C2**
Excessive journey times in and around Wakefield City centre, particularly: - Ings Rd / Kirkgate area; - Leeds Road, Wentworth Street, Old Bradford Road; - Marsh Way / Jacobs Well Lane; - Denby Dale Road / Westgate area	Potential problems associated with development at: - Marshway; - Wakefield Waterfront; - Westgate Key Development Area	- Incomplete inner ring road, and poor pedestrian facilities - Lack of capacity at junctions; - Severance problem for pedestrians and cyclists; - Problems with through traffic; - Illegal parking causing traffic delays particularly on radial routes and in the city centre. - Declining bus use and growth in use of private car for short distance journeys, where walking/cycling could be viable alternative modes.	**W-C3**
	Car parking problems emerging	Through traffic mixing with traffic circulating to find car parking, and all day commuter parking (council staff etc) Regeneration initiatives removing some car parking, and new demands for car parking	**W-C4**

PUBLIC TRANSPORT

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor quality of Kirkgate Station environment/accessibility		Historical lack of investment at station, unstaffed station, with poor pedestrian links to the City centre.	**W-PT1**
Poor interchange provision between bus routes and bus / rail		Lack of signing and publicity of interchange opportunities, poor waiting facilities Lack of good quality public transport links between rail stations, the bus station and retail parks	**W-PT2**

SAFETY

Existing Issues	Emerging Issues	Root Causes	Ref.
Accidents at key junctions (e.g. Ings Road / Denby Dale road roundabout, Chantry Bridge etc)		Increasing traffic volumes, lack of capacity at junctions, poor visibility / other design issues	**W-S1**

FIVE TOWNS TRANSPORT PROBLEMS

ACCESSIBILITY

Existing Issues	Emerging Issues	Root Causes	Ref.
Problems with access from the South East Wakefield area and parts of the Five Towns area to Glasshoughton/ Freeport and other new employment areas in the Five Towns Area	Potential problems with access to new Wakefield college site at Glasshoughton by bus. Poor access by public transport to Tuscany Park, Europort, Pioneer Park and future extensions to Glasshoughton developments		**FT-A1**
Poor accessibility between towns (e.g. Knottingley to Normanton)		No direct bus services from South East to/from Glasshoughton and Castleford area and existing bus network contracting. Poor quality road links from the South East, with narrow roads unsuited to heavy traffic in Ackworth, congestion in Pontefract and Featherstone. Increasingly heavy traffic volumes creating barriers to pedestrian and cycle movements	**FT-A2**
Poor access for pedestrians to the Castleford Waterfront regeneration area			**FT-A2**

ENVIRONMENT

Existing Issues	Emerging Issues	Root Causes	Ref.
AQMAs in Pontefract and near the M62 (Cutsyke, Hope Town etc)		Congestion at the townend junction in Pontefract and around M62 leading to air quality problems	**FT-E1**

CONGESTION

Existing Issues	Emerging Issues	Root Causes	Ref.
Congestion around motorway junctions (M62 juncts 31 and 32in particular)	Poor access to Wakefield and Leeds from much of the Five Towns area	Heavy volumes of traffic (HGVs and private cars) accessing the Europort, Tuscany Park and Normanton East industrial estates, which will grow when Normanton East industrial estate opens. Large number of recent new developments (retail, leisure and industrial) Xscape / Junc 32 retail area	**FT-C1**
Congestion in Pontefract town centre, especially A639/A645 junction		Heavy conflicting traffic flows at junctions in Pontefract, with insufficient capacity	**FT-C2**
Congestion in Castleford town centre, especially Aire Street		Despite the opening of the A1-M1 link road in 1999 and recent upgrading of the A1(M), considerable flows of vehicles use Aire Street to access the A656 (north) and the area around Wheldon Road. Flows exceed the capacity of junctions especially in the morning and evening peaks. Pedestrian crossing movements across the road, conflict with heavy vehicle flows.	**FT-C3**
Congestion in Featherstone, especially around A645 / Station Lane junction		Heavy traffic flows around the junction, with insufficient capacity to cope with demand	**FT-C4**
	Congestion in Featherstone, especially around A645 / Station Lane junction	Some car parking provided in locations with poor access. New development proposals require a review of car parking needs and locations.	**FT-C5**

PUBLIC TRANSPORT

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor facilities at Castleford bus and rail stations		Lack of investment in bus and rail stations has lead to a poor passenger environment, which has discouraged bus use	**FT-PT1**
Rail service at frequency below levels provided elsewhere in West Yorkshire		Low levels of demand on Wakefield - Pontefract line and capacity issues at Leeds limit potential for additional services to/from Leeds.	**FT-PT2**
Poor railway station facilities in Five Towns especially in Pontefract discouraging rail use		Poor facilities, with poor quality waiting facilities, no ticket offices, and insecure car parking. Remote from town centre in Pontefract.	**FT-PT3**
Poor quality of smaller interchanges (e.g. Normanton marketplace)		Lack of demand for interchange and insufficient funds to provide upgraded interchanges	**FT-PT4**

SAFETY

Existing Issues	Emerging Issues	Root Causes	Ref.
Safety concerns for pedestrians in town centres and poor accessibility to town centres on foot and by cycle		Narrow, poorly lit subways, unattractive to pedestrians Busy roads close to town centres cause problems, with insufficient crossing facilities Heavy traffic causes queues which lead to shunting type accidents. Heavy traffic flows may cause problems for pedestrians and cyclist	**FT-S1**
Personal security issues associated with crossing under the railway in Castleford and Pontefract			**FT-S1**
Road safety problems in Pontefract on A628, A639 and A645			**FT-S1**

SOUTH EAST TRANSPORT PROBLEMS

ACCESSIBILITY

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor access to new jobs, training and services by public transport in particular Poor accessibility from the South East Wakefield area to employment opportunities / leisure and retail in the Glasshoughton/ Freeport area Poor access by public transport between settlements in the South East	Potential poor connectivity to South Kirkby Industrial Park	Lack of conventional public transport (buses) means some services are difficult or impossible to access for those without access to a private car. No direct bus services from the South East to Glasshoughton and Castleford. Network has contracted due to decline in demand. Remaining routes have become longer and made journey times unattractive to car owners. Poor quality road links from the South East to Glasshoughton /Castleford, with narrow roads unsuited to heavy traffic in Ackworth, congestion in Pontefract and Featherstone.	**SE-A1**
Poor rural accessibility/social exclusion			**SE-A2**

PUBLIC TRANPSORT

Existing Issues	Emerging Issues	Root Causes	Ref.
Poor quality of bus interchanges		Lack of demand for interchange and lack of spending on upgraded interchanges mean that levels of interchange are kept low and reliance on direct buses, limits access to many destinations	**SE-PT1**
Poor quality rail service discourages further patronage growth		All local stations are unmanned, there are problems with level access at South Elmsall and passengers have to cross the line at grade at Moorthorpe station. Waiting and car parking facilities are poor discouraging rail use by car users. Lack of a rail station at Hemsworth and the reliance on bus connections to Fitzwilliam discourages rail use.	**SE-PT2**
Limited ability to provide additional local services calling at stations in the SE of the district.		Local passenger trains, long distance passenger trains and freight trains share track capacity in the SE of the district. Only one passing loop exists on the East Coast Mainline between Fitzwilliam and Moorthorpe junction.	**SE-PT3**

SAFETY

Existing Issues	Emerging Issues	Root Causes	Ref.
Heavy traffic flows on some narrow / unsuitable roads causing safety problems		Narrow roads with HGVs and other unsuitable traffic. Other locations to be investigated.	**SE-S1**

Appendix 3: Congestion Hotspot Improvement Proposals

CORRIDOR PROPOSALS	PROPOSAL OUTCOME		
	Early LTP2 to 2007/09	Late LTP2	Post LTP2 (2014-2019)
Black Road (A655), Wakefield			
Black Road inbound bus lane & bus priorities at junction with A638 (bus gate)	Completed late 2006		
Wakefield Eastern Bypass			LTP3 bid
Doncaster Road (A638), Wakefield			
Doncaster Road inbound bus priority at Agbrigg Road junction	Completed 2007		
Dunbar Street/ Doncaster Road junction revised layout (one way out)	Not completed		
Kirkgate/ Brunswick Street – outbound bus gate TRO (possible major scheme to replace Chantry House roundabout with traffic signals)		2010	
Junction improvements at Wakefield Waterfront	Completed 2008		
Chantry House roundabout replacement		2011	
Kirkgate bus gate		2010	
Doncaster Road bus lane extension			LTP3
Wakefield Eastern Bypass			LTP3 Bid
Doncaster Road (A638) widening from Agbrigg Road to Elm Tree Street section		2012	
Park & Ride east of Oakenshaw Lane on Doncaster Road (A638)			LTP3
Leeds Road (A61), Wakefield			
Newton Bar/ Leeds Road (signal controlled junction to replace roundabout and new link road)		2012	
North Wakefield Gateway		2011	
Park & Ride at Newton Bar (A650)		2012	
Horbury Road (A642), Wakefield (from New Road to St. Michaels Gyratory)			
Bus lane on Northfield Lane/ Horbury Road from either Cluntergate or Wakefield Road to Broadway			No allocation
St. Michaels/ Dewsbury Road/ Horbury Road signals		2012	
Dewsbury Road (A638), Wakefield (from M1 J40 to Quebec Street)			
Signal timings at Flanshaw Lane with bus scoot transponders		2010	
Dewsbury Road/ Queens Drive junction improvements	Completed 2008		
Dewsbury Road/ Waterton Road/ Cross Lane junction (one way out onto Cross Lane)		2010	
Westgate corridor to Quebec Street prohibit right turns		2010	
Bus lane on approaches to signals (for whole corridor)		2010	
Denby Dale Road (A636), Wakefield (from M1 J39 to Quebec Street/ Ings Road)			
Gyratory using Charlesworth Way/ Ings Road/ Denby Dale Road		2011	

CORRIDOR PROPOSALS	PROPOSAL OUTCOME		
	Early LTP2 to 2007/09	Late LTP2	Post LTP2 (2014-2019)
Barnsley Road (A61 south), Wakefield (from Standbridge Lane to Bridge Street)			
Barnsley Road/ Manygates Lane Toucan & cycle lane	Completed 2008		
Barnsley Road/ Doncaster Road junction improvements (Waterfront)	Completed 2008		
Aberford Road (A642 north), Wakefield (from M62 J30 to A61 Trinity Walk)			
Stanley Road/ Eastmoor Road junction improvements	Completed		
Trinity Walk development improvements (Jacobs Well Lane/ Stanley Road junction)		2010	
Aberford Road/ Ferry Lane junction improvements (signals)		2010	
Wakefield Road (A645 west), Pontefract (from Crematorium to Baileygate)			
Changes to signal timings at Townend A645/ A639 junction	Completed 2008		
HGV ban (when A1 to Hemsworth link road completed)		2009	
Junction improvement at Townend (involving land and buildings CPO)		2011	
South East Link Road – Pontefract Western relief road			LTP3
Mill Hill Road (A639 south), Pontefract (Jubilee Way, Park Road to M62 J32			
Signal changes at Townend A645/ A639 junction and Park Lane junction	Completed 2008		
HGV ban (when A1 to Hemsworth link road completed)		2009	
Junction improvement at Townend (involving land and buildings CPO)		2011	
South East Link Road – Pontefract Western relief road			LTP3

Appendix 4 BUS STRATEGY MEASURES

	STRATEGY ELEMENTS	Easy to use and understand	Accessible to all	Attractive to all	Reliable	Affordable	Efficient	Safe and secure	Best practice
A	**Reliability and Punctuality**								
A1	Implement the LTP2 programme of traffic management and bus priority measures funded from Integrated Transport Block Allocations			✓	✓		✓		Metro has implemented these measures in LTP1, including guided bus ways
A2	A65 Kirkstall Road, Yorkshire Bus and other ITP2 major schemes (subject to funding)			✓	✓		✓		In Edinburgh, widespread bus priority measures have improved reliability and levels of bus use across the city
A3	Introducing and utilising Performance Improvement Partnerships, using data from the real time passenger information system where available to improve reliability and punctuality of bus services.			✓	✓		✓		TfL has a performance management regime that has contributed to improved performance.
A4	Improving the enforcement of Bus Priority, including adoption by District Councils of de-criminalised parking enforcement powers and use of Bus Lane enforcement cameras.			✓	✓		✓	✓	These powers are in force in London and have contributed to improvements in reliability and punctuality. Red routes are currently being implemented in the West Midlands, including enhanced enforcement of bus lanes to improve service reliability and journey times. The DfT has recently published guidance on the powers of local authorities outside London to enforce bus priority measures.
A5	Actions to reduce boarding times delays			✓	✓		✓		Simplification of fares has achieved boarding times reductions in London and Brighton. In London and Gothenburg, smartcards have been introduced and over 90% of transactions are now off bus.
B	**Network**								
B1	Programme of network reviews, in partnership with operators, to determine the balance between congestion and accessibility objectives, efficiency, simplification of presentation to users and potential users and achieve financial sustainability, in part using real time technology using supplied ticket machine data	✓	✓	✓	✓	✓	✓		Gothenburg and London both have planned networks with wider targets than financial viability although this is included. Belfast has introduced a "Metro" concept for its city services with a simplified network and achieved 10% patronage growth in the first year of operation.
B2	Improve opportunities for interchange, including timetable coordination between services (same mode) and between modes.	✓	✓	✓	✓		✓	✓	Gothenburg has coordination of timetables between local bus, inter-urban bus, tram and rail. Nottingham has coordination and interchange between bus and tram.

B3	Increased network stability by reducing the number of service changes	✓	✓	✓	✓		✓	✓	Metro has, by agreement, reduced the number of service change dates per annum. In Greater Manchester a partnership of operators and authorities has limited timetable changes to 3 per year.
B4	Delivery of a more accessible network including: • The use of accessibility mapping in network and service design • Consideration of the role of demand responsive and community transport • Transfer tickets in and between mode	✓	✓	✓	✓	✓	✓	✓	Berlin use accessibility mapping to influence network design using "Visum" software. Gothenburg have "90 minute" transfer tickets as opposed to singles and a high level of interchange. In Continental Europe tickets are often time bound rather than trip specific. This encourages interchange and ticket purchase away from the vehicle.
B5	Improving physical accessibility to the network including: • Bus stops and their environs including Clearways where appropriate • Bus stations • An earlier than target date for the introduction of a 100% accessible fleet • Targeting specific routes where there may be greater accessibility issues such as routes to Hospitals • Removing, where practicable, barriers to physical interchange such as (subject to funding and business case) the development of new bus stations at Castleford, Brighouse and Pudsey and improved facilities at Heckmondwike.	✓	✓	✓			✓	✓	Metro has implemented a policy of improving bus stops and bus stations in LTP1 including new stations at Batley, Cleckheaton, Keighley and Ossett and a major refurbishment at Pontefract. The entire London bus network will be wheelchair accessible by January 2006. Introduction of new, accessible bus fleets in York, London, Herefordshire and Cambridge has coincided with passenger growth. Passenger numbers have grown in West Yorkshire on services where new, accessible fleets have been introduced.
B6	Working with operators (Arriva, First, Transdev, Stagecoach) and CPT (representing small operators) in partnership on a three year rolling business plan for each concern to improve longer term efficiency of the system				✓	✓	✓		
B7	Implementation of the "Yorkshire Bus" programme of busy bus corridor improvements (and including as a result the delivery of secondary and developmental networks)								
C	**Fares and Ticketing**								
C1	Assess the impact of changes in concessionary fares and evaluate					✓	✓		

	required actions								
C2	Simplification of ticketing and fares structures including extended travel products (either geographic or time based) designed to improve interchange and integration and not designed to protect individual company market share.	✓	✓	✓	✓	✓	✓		Ticketing has been simplified in London and Brighton and in both cases has led to passenger growth (Brighton quotes a 5% increase in patronage in the first year). Simplified network tickets have been introduced in Belfast which has contributed to 10% growth in patronage mainly off peak where there is capacity.
C3	Mechanisms to ensure that the cost of bus and car travel become more equitable use, including an objective of keeping increases in fares to the general rate of inflation		✓	✓		✓	✓		
C4	Implementation of ticketing to maximise the use of spare capacity		✓	✓		✓	✓		Simplified network tickets have been introduced in Belfast which have contributed to 10% growth in patronage mainly off peak where there is capacity
C5	Implementation of ticketing with **sufficient flexibility** to serve niche markets such as specific social, age and employment groups.	✓	✓	✓		✓	✓		In London, there is free travel for organised school parties to places of educational and cultural interest, meeting wider social objectives and also encouraging children to use public transport. **The introduction of Carnet tickets in London proved attractive to irregular bus commuters and tourists whose travel patterns did not justify the purchase of period tickets**
D	**Customer service**								
D1	Improving the customer/driver interface by improved training delivered through WYTESA in partnership with operators and educationalists	✓	✓	✓	✓		✓	✓	TfL have funded a driver simulator in London and are encouraging other operators to take part. They quote that ""Safety studies show that simulators can decrease preventable accidents by as much as 43 per cent." - source: New York City Transit figures
D2	Adopting a common compensation policy to best practice standards	✓		✓	✓	✓	✓	✓	TfL have a common compensation policy for all services in London. **York's park and ride schemes provide compensation to users who are not satisfied through issuing Marks and Spencer's vouchers.**
D3	Developing a bus customer programme to benefit regular users/key customer groups including promotional activity	✓	✓	✓		✓	✓		A trial of this was undertaken in Warrington in the mid 90's and helped to generate passenger growth in the face of competition from another bus company. The issue for company's today is mainly competition with the car. Large successful retailers such as Tesco have customer loyalty schemes as part of their offer to their customers.
D4	Developing campaigns to modify the perception of bus travel		✓	✓				✓	The EU Tapestry project has demonstrated that targeted campaigns can enhance perceptions of bus travel. **The "Buses in Cornwall" campaign used print and radio advertising to raise the profile of bus services in Cornwall in 2004.**
D5	Investment in new vehicles to reduce the average age of the fleet during the period of LTP2 or investment in refurbishment to bring older vehicles up to new vehicle standards.	✓	✓	✓	✓		✓	✓	**Use of new vehicles has coincided with increasing passenger numbers on routes in West Yorkshire.**
D6	Developing a system of complaints handling/actions to best practice	✓	✓	✓	✓		✓	✓	**York's Park and Ride scheme uses a formalised complaints handling procedure and is generally perceived to be a high quality service, with increasing**
	standards and measuring satisfaction to these common standards.								**passenger numbers.**

Appendix 5 ROWIP ACTION PLAN

ACTION	DELIVERY
Conclusion 1 - Information	
Develop a programme to guide enhance signing provision.	2009
Develop a project to determine how best to increase use of the path network.	Dec 2008
Develop in partnership with user groups a comprehensive network of promoted paths, particularly in areas with little or no existing provision.	2008-2011
Promote paths in conjunction with public and community transport, including areas where there is a lack of rights of way and opportunity for circular routes	2008-2011
Develop links with schools, youth groups, places of worship, community projects and volunteers to encourage community involvement to raise awareness of the path network.	2008-2011
Conclusion 2 – Wider information	
Collate information on wider access routes	Dec 2008
Conclusion 3 – Recording of Routes	
Establish the definitive map for the former County Borough	Mar 2010
Complete outstanding diversion order applications in priority order	2019
Establish and keep up to date the asset records	2008
Establish and keep up to date permissive and other paths.	2007
Update and maintain cycle routes	
Conclusion 4 – Missing links	
Identify additional links and appropriate facilities to create safe and attractive circular routes	2011
Identify missing footway links	2011
Identify new or enhanced crossings, pelicans, zebra, toucans and pegasus	2011
Identify highway grass verges for more accessibility e.g. horses	2008
Identify possible horse riding use of cycle tracks	2008
Identify bridge and underpass links to connect routes	2011
Conclusion 5 – Access for all	
Develop scheme to provide best information for disabled people	2009-2011
Develop a policy of least restrictive access.	2009
Identify sites for parking for mobility difficulties	Dec 2008
Audit sites to improve access for mobility difficulties.	2007-2009
Conclusion 6 – Accessibility variation for some communities	
Support and facilitate guided walks and rides.	2006-2011
Research the needs of excluded groups to encourage involvement.	2009-2011
Conclusion 7- Network Maintenance	
Develop a programme of network inspection to maintain standards.	2007
Develop a programme of maintenance and signing.	Ongoing
Identify paths for enhancement e.g. hard surfacing	Dec 2008
Establish maintenance agreements to permissive routes.	Dec 2008
Produce Equestrian Strategy.	2010
Develop community involvement in management of rights of way.	Ongoing
Conclusion 8 – Improved signage	
Develop a programme of signage in urban areas	2010
Identify additional signage needs.	2011
Develop a waymarking programme.	2014
Develop a programme to sign permissive routes, parks and access land.	2011
Develop a programme for warning signage for road users.	2011
Conclusion 9 – Anti-social Behaviour	
Signage to deter unauthorised off road motorcycle use.	2011
Enhance current liaison with enforcement agencies and CCTV	2008
Investigate sites for supervised off road motorcycle use.	2011
Extend litter and dog bin provision in urban areas.	2011
Implement gating orders to manage misuse of paths.	
Conclusion 10 – Updating the Network	
Programme for resolving paths not on their legal line or obstructed.	2016
Protocol to work with Planning to cater for path user needs.	2008
Identify routes to access paths to safer routes to school and community facilities.	2008

Conclusion 11 – Enhancing the Network	
Introduce seats, resting areas, cycle parking, artwork and tree planting.	2011
Identify lighting provision.	Ongoing
Develop a hierarchy of path surfaces and drainage for all needs.	2016
Conclusion 12 – Partnership Working	
Identify partners and embedded actions in existing and developing strategies.	Annual
Identify project leaders and budget opportunities.	Annual
Develop improved links with community groups and interested parties.	Annual
Conclusion 13 – Enhancing economic opportunities	
Develop district network links to long distance paths.	Ongoing
Develop collaborative promotion of paths to link district wide tourism sites.	Ongoing

Appendix 6 WMDC Travel Plan Measures

Soft Measures

Area	Measure	Site/Service Area	Start Date
Active Travel	Encourage staff to wear appropriate cycle wear and use bike lights through distribution of information leaflets	All Service Areas	Sept. 06
	Discounted cycle purchase/ hire at local retailers	All Service Areas	Sept. 06
	Cycle buddy available for staff	All Service Areas	Sept. 06
	Promote cycle mileage allowance	All Service Areas	Sept. 06
	Walk/Public transport buddy – matching those living in specific area and who may have security concerns about walking/ using public transport alone to/from work	All Service Areas	Sept. 06
	Walking and/or Cycling Distance Mapping for each site showing how far can walk or cycle in 5, 10, 15 and 20 minutes. Maps would be placed in foyers of main sites	All 16 sites	1 map per week Start Feb. 07
	Information about optimal safe cycle routes between sites.	Strategic sites	Nov. 06
	Loan of pedometers	100 volunteers	Feb. 07
	Develop bicycle user group	All Service Areas	Mar. 07
Car Share & Pool Car	Re-launch Wakefieldcarshare.com alongside Travel Plan	All Service Areas	Sept. 06
	Set up car share coffee sessions to enable staff to meet one to another from same building and postcode areas.	All Service Areas	Sept. 06
	Promote pool car facilities already available	Family Services	Ongoing
Public Transport	Provide up to date information on public transport provision including additional link to the Metro website and journey planner	All 16 sites	Sept. 06
	Increased promotion of interest free MetroCard loan and explore opportunities for enhancement of this.	All Service Areas	Sept. 06
	Promote bus use at sites where it appears there are high proportions of staff living within bus route catchment but not currently using bus. This should connect where possible with YBI activities.	Strategic sites	Spring
	Investigate provision of PT info on any Council digital display boards.	Where applicable	As they become available
	Promotion of the rail warrant system	All Service Areas	Sept. 06
	Dialogue with Metro/ Bus operators about the provision of tickets to allow staff to reclaim bus journeys, better discounts and timetable information.	Metro/ Bus operators	Ongoing
New Ways to Work	Promote and manage impacts of home working with consideration for employee's needs.	All Service Areas	Nov. 06
Awareness & Information	To continue to promote awareness of the Travel Plan through Insight and Intranet.	All Service Areas	Ongoing
	To develop a travel information pack to be given to new staff at time of recruitment. This should also be made available to existing staff.	All Service Areas	Apr. 07
	Seek opportunities for annual awareness raising events, such as bike week, car free day	Promote to all service areas	3 initiatives in 2007
	Pilot Personalised Travel Planning with 1 service area (Regeneration).	Regeneration Services	Mar. 07
	Travel Blending travel diaries introduction into 1 service area	Regeneration Services	May. 07
Monitoring	The Service Area Champions will meet to drive forward the development of the Plan.	All Service Areas	Sept. 06 (monthly)
	Travel expenses monitoring including: casual allowance, public transport, cycle mileage claims.	All Service Areas	Jan. 06
	Participate in the West Yorkshire Travel Wise snapshot survey respondents.	Sample Group	Mar. 07
	Complement snap shot survey with follow-up interviews with sample of original Travel Plan survey respondents.	Sample of Travel Plan survey 2006	Mar. 07
	Undertake detailed monitoring survey March 2008.	All 16 sites	Mar. 08

Hard Measures

Area	Measure	Site/Service Area	Start Date
Active Travel	Consider establishing pool bikes for inter-site travel	Strategic sites	Short Term
	Provide personal attack alarms to those who desire them.	All service areas	Short Term
	Provide additional secure, well lit cycle storage in highly visible locations.	Strategic sites	Medium Term
	Improve provision of showers and changing facilities.	Strategic sites	Medium Term
Public Transport	For staff willing to surrender car park permit, provide MetroCard free of charge	All service areas	Medium Term
	Consider further discounts to offer to MetroCard holders.	All service areas	Short term
	Improve pedestrian access.	Strategic sites	Medium Term
	Increase amenity of Council Courier Service to carry passengers and link main council sites.	Strategic sites	Long Term
	Improved CCTV coverage and lighting at transport nodes to improve security.	Strategic sites	Long Term
	Speak with bus operators and Metro to discuss any further fare deals and possibility for improved services on key routes.	Bus operators Key routes	Medium Term
Car Share/ Poll Car/ Car Clubs	Allocate priority guaranteed spaces for registered car sharers.	All sites	Short Term
	Continue to look at the feasibility of car clubs and provision of pool cars at strategic locations.	Strategic Sites	Medium Term
	Look at availability of Pool cars at strategic sites such as Newton Bar	Strategic sites	Medium Term

Corporate Measures

Area	Measure	Site/Service Area	Start Date
Making sustainable travel more appealing	Allow increased flexibility of start/finish times in elation to public transport times.	All Service Areas	Short Term
	Allow claims against travel when MetroCard has been used for work trips	All Service Areas	Short Term
	Consideration of a Walking Allowance to complement other allowances	All Service Areas	Short Term
	Policy of promoting the travel plan and sustainable travel options as valid means of transportation during staff inductions.	All Service Areas	Short Term
	Policy of provision of travel information for council events including public transport, walking and cycling.	All meeting venues	Medium Term
	Consideration of crèche facility at strategic sites which makes public transport trips more practical.	One strategic site	Long Term
	Accessibility planning for new council sites.	All new sites or change of use	Long Term
Parking	Introduction of benefits for car sharers.	All sites	Short Term
	Phased introduction of parking charges/controlled parking at all sites and corresponding withdrawal of parking permits.	All sites	Medium Term
Car Share	Consider introduction of a guaranteed taxi ride home service in the event of car sharers let down.	All sites	Medium Term
	Consider opportunities for introducing alternative fuelled vehicles to Council fleet.	All services areas	Long Term
Promotion	Provide public transport information at Council events	All locations	Medium Term
	Consider central car club for officers and public		Medium Term

Area	Measure	Site/Service Area	Start Date
New ways of working	Policy on using accessible meeting venues	All service areas	Short Term
	Look at staff home location vs. work location. Allow "open offices".	All service areas	Long Term
	Allow access via internet to supermarket shopping to enable staff to shop online to have home delivery reducing additional journeys.	All service areas	Short Term

Appendix 7 WMDC Environmental Policy Statement (adopted August 2001)

(To be revised, implemented and monitored by the Corporate Environment Group)

The City of Wakefield Metropolitan District Council acknowledges it has a significant role in the provision of a sustainable and attractive environment which meets the needs of its population as a place to live, travel, work and enjoy leisure time. It recognises that the Council's services have an effect on both the local and global environment. The Council will seek to improve its own environmental performance and, by setting a good example, encourage others. The Council is committed to work towards greater sustainability in its own operations through the prudent use of the earth's natural resources including conserving energy and reducing waste. In implementing this policy the Council will -

Waste

Minimise its own waste and promote and encourage waste minimisation, re-use, recovery and recycling.

Ensure that all waste produced by the Council is disposed of with the least impact on the environment.

Energy

Reduce the Councils total building energy consumption

Improve the energy rating of both its housing stock and its non domestic property

Investigate opportunities to use alternative fuels including renewable energy

Water

Seek to minimise potable water consumption in all Council buildings and facilities
Investigate improvements to the whole life cycle of water management

Transport

Aim to reduce the use of vehicles on Council business

APPENDIX 8 WAKEFIELD TRANSPORT STRATEGY INTERVENTIONS

Short Term Interventions	Score
Travelwise campaigns, homeworking and expansion of car sharing scheme to involve more of the population	40
More cycle lanes and pedestrian routes to link residential areas to the City centre, new employment areas, leisure, retail and health care	40
Bus network reviews	30
YBI (including bus stop clearways, kerbing works and bus priority measures)	24
LDF policies for future land allocations	24
Measures to improve traffic flow and reduce amount of car traffic in the central area of Castleford	24
Emerald Ring and associated improvements to junctions, pedestrian/cycle facilities, creation of network of walking and cycling routes linked to new crossing points on the Emerald Ring	21
Implement Parking Strategy recommendations	21
Westgate KDA new street layout, use transport model to aid design and evaluation process	21
Improved crossing facilities on Aire Street and throughout Castleford Town Centre associated with regeneration scheme	20
Castleford Integrated Transport Scheme	20
Measures to improve traffic flow and reduce amount of car traffic in the central area of Wakefield	18
Review of Community Transport across WMDC area	18
Manage demand for travel associated with new developments including car park policy	18
Trial of free bus service around Wakefield City centre linking PT interchanges and retail parks to the central shopping area	18
WYLTP2 schemes to redesign junctions A636/Ings Road roundabout	15
Highway changes to layout/ operation of junctions in Wakefield Centre	15
Investigate the potential role of Community Transport for communities in the South East of the District	14
New public transport services to new employment sites (including Metro Connect, Community Transport and Wheels to Work)	12
Pedestrianisation of Wood Street and other schemes in City Centre	12
Hemsworth A1 link road	12
Investigate means of improving public transport access from the SE including network review of existing routes	12
Highways maintenance programme to be reviewed and targeted to improve air quality and reduce accidents	10
Council Travel Plan and other large employers to develop travel plans to promote use of alternatives to private car for journeys to work	10
HOV lanes on the A636 Denby Dale Road and A650	10
Develop a car parking strategy for Castleford and Pontefract	10
Enforcement of bus only roads/ bus gates in City centre	8
Development of the Glasshoughton Coalfields Link road	8
Engineering measures to reduce severance impact of roads and aid community cohesion	6
Council fleet management (including alternative fuels) and encouragement of walking, cycling and public transport for inter-office journeys)	3
Strategic bus network improvement between Five Towns	3
Development of cycle routes and pedestrian crossings using LTP IT money	3
Accessibility partnership to influence decisions made by PCT, NHS Trusts	2
Further traffic calming measures, targeted junction improvements, speed management measures	2
Bus network review to account for new developments/ future demand for travel	1
Redevelopment of Hemsworth bus station	1
Management of Council Transportation – Education, Social Services	1

Medium Term Interventions	Score
North Wakefield Gyratory	18
Wakefield Eastern By pass (A642 to A638)	18
Improvements to Wakefield Kirkgate Station	18
Measures to improve traffic flow in Pontefract town centre including junction alterations	15
Improvements to rail station facilities	12
Strategic review of road hierarchy and inappropriate traffic	12
Dualling of A638 Doncaster Road	10
Queue relocation/ management and other innovative traffic management measures	10
Park and Ride – A638 Doncaster Rd, A650 Newton Bar and A636 Calder Park	10
New passing loops and third platform at Westgate Station	10
Community Transport for isolated communities	8
Motorway related Park and Ride into Wakefield and Leeds in conjunction with HA	8
Work with HA to reduce congestion on M62 and A1	8
Solutions to transport/ traffic issues including the South East Link Road and other alternatives yet to be developed	8
Bus Quality Contracts	6
Bus Rapid Transport network for West Yorkshire to include links into WMDC area	6
Rail improvements – Leeds Sheffield and trans-Pennine routes	6
UTMC upgrades to improve the efficiency of traffic signals	6
Further bus priority measures (bus lanes part of North Wakefield Gyratory)	3
Increased train lengths and additional services	2
Work with Metro, Northern Franchise and Network Rail to develop problem solutions at South East stations	2
Traffic calming measures to be implemented on A639 Jubilee Way	2
Smartcard ticketing to reduce dwell time at stops	1
Work with Metro to develop plans to upgrade category C interchanges	1
Work with Metro and Northern Rail to look at options to improve facilities at other stations	1

Long Term Interventions	Score
Tram-Train service between Wakefield Kirkgate, Knottingley and Leeds	30
Tram-Train service between Wakefield Kirkgate, Five Towns and Leeds	30
Investigation of City Region wide congestion charging scheme	28
Improvements to trains	24
Widening of the M1, M62 and other improvements to the capacity of the strategic highway	6
New local stations at Hemsworth and South Kirkby industrial park	4
Introduce tram-train to relieve pressure on Leeds station platform capacity and reduce operating costs	1
East Coast main line track improvements	1

Appendix 9 WYLTP2 Indicators and Targets to 2010/11

Reference	Indicator	Local Target to 2010/11	Shared Priority
Mandatory M 1	Local Accessibility target	Ensure that 89.5% of households without access to a car are within 30 minutes of a hospital by public transport.	Delivering Accessibility
Mandatory M 2	Bus punctuality	Increase bus punctuality to 95% by 2010/11 for all registered services. A year on year reduction in Excess Waiting Time for frequent services.	Delivering Accessibility
Mandatory M 3	Satisfaction with local bus services	Increase bus satisfaction to 59% by 2009/10.	Delivering Accessibility
Mandatory M 4	Annualised index of cycling trips	A 10% increase in overall cycling levels by 2010/11	Delivering Accessibility
Mandatory M 5	Average journey time per person mile on key routes	Process of target setting still ongoing – awaiting DfT data and guidance – to be finalised by July 2006	Tackling Congestion
Mandatory M 6	Change in peak period traffic flows to urban centres	Traffic growth in urban centres in the morning peak period (0700-1000) from 2003/04 to 2010/11 to be restricted to: Bradford 3%; Halifax 3%; Huddersfield 3%; Leeds 3%, and Wakefield 3%	Tackling Congestion
Mandatory M 7	Mode share of journeys to school	Setting of target on hold until DfES data available data available in 2007	Tackling Congestion
Mandatory M 8	Public transport patronage	A 5% increase in bus patronage by 2010/11.	Tackling Congestion
Mandatory M 9	Total KSI casualties	A 40% reduction in the number of people KSI from 1994/98 average by 2010, stretched to a 30% reduction from 2002-2004 average by 2010	Safe Roads
Mandatory M 10	Child KSI casualties	A 50% reduction in the number of children KSI from the 1994/98 average , stretched to a 40% reduction from 2002-2004 by 2010	Safe Roads
Mandatory M 11	Total slight casualties	A 15% reduction in the number of people slightly injured from 2002-2004 average by 2010	Safe Roads
Mandatory M 12	NO2 annual average concentrations in designated AQMAs	A 10% reduction NO2 in the Leeds AQMAs. Targets will be set for other AQMAs as they are declared during LTP2	Better Air Quality
Mandatory M 13	Change in area wide road traffic	No more than a 5% increase in 16-hour weekday traffic flows weighted by road length, at a representative sample of sites fro 2004/04 levels by 2010/11	Better Air Quality
Mandatory M 14	Principal road network where maintenance work should be considered.	Reduce the percentage of the Principal Road Carriageway network where maintenance should be considered form 36% in 2004/05 to 27% by 2011	Effective Asset Management
Mandatory M 15	Non-Principal road network where structural maintenance should be considered.	Reduce the length of the Non Principal classified carriageway network where maintenance work should be considered from 13% in 2003/04 to 5% by 2011	Effective Asset Management
Mandatory M 16	Unclassified road network where structural maintenance should be considered.	Reduce the length of the unclassified carriageway network where structural maintenance should be considered form 16% in 2003/04 to 9% by 2011	Effective Asset Management
Mandatory M 17	Footways where structural maintenance should be considered.	Reduce the percentage of footway Category 1, !a and 2 networks where structural maintenance should be considered from 24% in 2003/04 to 14% in 2011	Effective Asset Management

Reference	Indicator	Local Target to 2010/11	Shared Priority
Local L1	Satisfaction with LTP funded public transport facilities	Increase in satisfaction with LTP funded public transport facilities to 90% by 2010/11	Delivering Accessibility
Local L2	Cycling trips to urban centres during the morning peak	A20% increase in cycling trips to Leeds, Wakefield and Halifax centres during the AM peak (0730-0930) by 2010/11	Tackling Congestion
Local L3	AM peak period mode split to urban centres	Reduce the proportion of car-based trips into central Leeds from 57% to 55% by 2010/11. No increase in car mode share in Bradford, Halifax, Huddersfield and Wakefield	Tackling Congestion
Local L4	Peak period rail patronage	Increase peak time rail patronage on local train services into Leeds by 20% to 2010/11	Tackling Congestion
Local L5	Patronage on Quality Bus Corridor	Increase in bus patronage above the West Yorkshire patronage on QBCs	Tackling Congestion
Local L6	Number of pedestrians KSI in road traffic collisions	A 50% reduction in the number of pedestrians KSI from the 1994/98 average by 2010 and stretched to a 30% reduction from the 2002-2004 average by 2010	Safer Roads
Local L7	Annual road traffic emissions of NOx across West Yorkshire principal road network	A 20% reduction in NOx from 2004/05 to 2010/11	Better Air Quality
Local L8	Annual road traffic emissions of CO2 across West Yorkshire principal road network	No increase in CO2 emissions from 2004/05 to 2010/11	Better Air Quality
Local L9	Structure with weight restrictions	To reduce temporary restrictions on council owned bridges to 1.5% from 4.3% in 2005	Effective Asset Management
Local L10	Percentage of bus shelters that meet modern standards	95% of bus shelters to meet modern standards by 2010/11	Effective Asset Management