

ROAD TRAFFIC REDUCTION ACT REPORT

BACKGROUND

1. The Road Traffic Reduction Act 1997 requires all local authorities to carry out an assessment of existing levels of traffic on local roads and a forecast of expected local traffic growth. All authorities are then required to consider targets for reducing the level of local road traffic or its rate of growth.
2. The West Yorkshire authorities have been actively pursuing the reduction of traffic growth through the development of the transport package measures in recent years. We have developed and set up comprehensive monitoring procedures as part of this process, details of which are presented in the Annual Progress Report.

ASSESSMENT OF EXISTING TRAFFIC LEVELS

3. Monitoring of traffic in the county has been carried out for many years. Reports on countywide statistics are produced on an annual basis and individual District reports are updated every two years.

Manual Traffic Counts

4. The Local Transport Plan guidance makes reference to the DETR National Traffic Census. In West Yorkshire this represents a count programme of over 250 counts undertaken on a rolling 3-year programme. Count locations vary from motorways to minor roads and each count is undertaken on one weekday from 0700 - 1900.
5. Data is available from 1979 to the present year and since 1986 has been fully computer based. Further consideration will be given to carrying out further counts to complement the DETR National Traffic Census and to develop a series of cordons and screen lines to facilitate more effective monitoring.

Automatic Traffic Counts

6. Traffic flows throughout West Yorkshire have been monitored using automatic traffic counters since 1979. This long term monitoring programme is organised on a four year rolling programme and concentrates on screen lines and cordons in the main urban areas. Approximately 100 sites are counted annually to monitor traffic growth.
7. The long term monitoring programme will continue. Selective continuous monitoring of traffic flows is being introduced in some locations. In the future, automatic vehicle classification and other developments of monitoring will be considered, together with any requirements arising from national guidance on reducing traffic flows.

Roadside Interview Surveys

8. This is the area in which we have the least up to date information. The last countywide set of Roadside Interviews was done in 1986. There are currently no firm proposals for repeating this exercise. However, several ad-hoc RSI surveys have been conducted in all districts since that date. Further consideration will be given to updating this type of data in the future.

RESULTS OF MONITORING

Traffic Growth

9. The growth in traffic across West Yorkshire is shown in Table 1 and graphically in Figure 1. The West Yorkshire figures are derived from the Automatic Count programme

Year	West Yorkshire Growth - All Roads	West Yorkshire Trend Line	National Traffic Growth
1989	100.0		100.0
1990	102.5	102.0	101.0
1991	103.5	104.0	101.2
1992	106.0	104.7	101.3
1993	104.6	106.0	101.3
1994	107.4	106.4	103.9
1995	107.1	107.5	105.9
1996	108.0	108.1	108.7
1997	109.3	107.5	111.2
1998	105.3	107.7	112.9
1999	108.5		

Table 1: West Yorkshire Traffic Growth 1989-1999

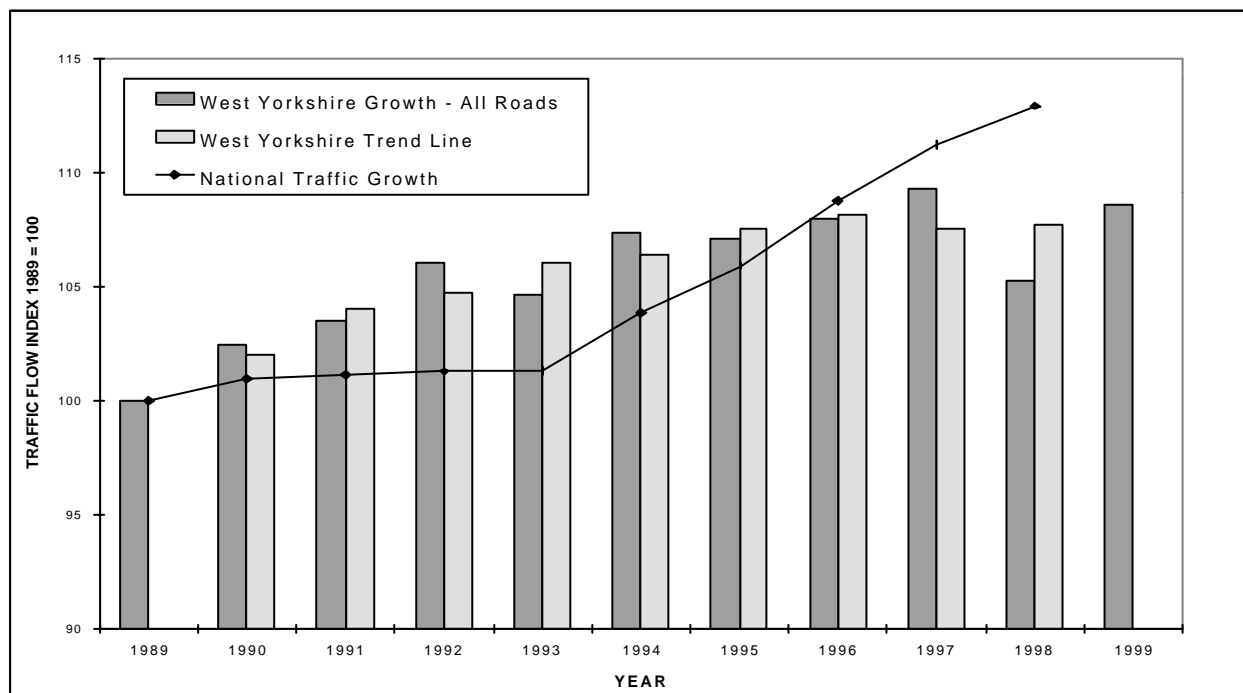


Figure 1: West Yorkshire Traffic Growth 1989-1999

10. The statistics for individual years should only be used as a broad indication of traffic growth as in some cases the number of roads included in the sample is small. The

3-year moving average trend line shown on the graph gives a more robust indication of traffic growth.

11. In addition we have central area cordon and screen line information for all major urban areas. A reduction in the growth of traffic in all main centres is considered essential if the primary objectives are to be achieved. Data presented for the peak hours and peak periods in Tables 1 to 5 show the progress made in curbing traffic growth measured against a 1990 baseline.

Year	Peak Hour (0800 to 0900)	Peak Hour Index (1990=100)	Peak Period (0700 to 1000)	Peak Period Index (1990=100)
1990	18,180	100	43,660	100
1993	19,120	105	45,450	104
1995	18,860	104	45,340	104
1997	18,750	103	45,800	105
1999	18,550	102	45,600	104

Table 2: Bradford Central Cordon - AM Peak Period Inbound Traffic Flows

Year	Peak Hour (0800 to 0900)	Peak Hour Index (1990=100)	Peak Period (0700 to 1000)	Peak Period Index (1990=100)
1990	8,550	100	19,810	100
1993	8,940	105	21,370	108
1995	9,480	111	22,530	114
1997	9,120	107	22,590	114
1999	9,360	109	22,890	115

Table 3: Halifax Central Cordon - AM Peak Period Inbound Traffic Flows

Year	Peak Hour (0800 to 0900)	Peak Hour Index (1990=100)	Peak Period (0700 to 1000)	Peak Period Index (1990=100)
1990	11,340	100	28,570	100
1993	11,500	101	28,430	100
1995	12,150	107	30,680	107
1997	12,324	109	31,360	110
1999	11,183	99	28,730	101

Table 4: Huddersfield Central Cordon - AM Peak Period Inbound Traffic Flows

Year	Peak Hour	Peak Hour Index	Peak Period	Peak Period Index
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	(0800 to 0900)	(1990=100)	(0700 to 1000)	(1990=100)
1990	35,596	100	87,180	100
1992	38,144	107	94,877	109
1994	34,631	97	88,423	101
1996	33,892	95	88,883	102
1998	34,380	97	92,330	106

Table 5: Leeds Central Cordon - AM Peak Period Inbound Traffic Flows

Year	Peak Hour (0800 to 0900)	Peak Hour Index (1990=100)	Peak Period (0700 to 1000)	Peak Period Index (1990=100)
1990	10,110	100	24,940	100
1992	9,710	96	24,300	97
1994	9,970	99	24,140	97
1996	9,850	97	24,360	98
1998	9,712	96	24,734	99

Table 6: Wakefield Central Cordon - AM Peak Period Inbound Traffic Flows

12. The data shows that although there are variations across the county, in general traffic levels are growing less than the national average.

TRAFFIC FORECASTS AND TARGETS

13. We are committed to setting challenging but realistic targets against which progress can be judged. To help in assessing the compatibility between our proposed targets and strategy, we commissioned the Transport Research Laboratory (TRL) to develop a strategic transport model for the County.

14. The West Yorkshire Strategic Transport Model is a flexible multi-modal modelling analytical tool capable of forecasting the impacts of the Local Transport Plan strategy at a sufficient level of accuracy to enable realistic targets to be set based on analysis of the output. The model includes predictions on economic activity and land use patterns.

15. The model is capable of providing answers to 'what if?' questions, and can be used as part of an iterative process to determine an acceptable balance between the desired targets and the means to achieve them. It is able to take account of the majority of the strategy measures included in the Local Transport Plan except those specifically aimed at walking and cycling.

16. The predicted impacts include changes in absolute trip numbers by mode as well as changes in vehicle and passenger kilometres. Impacts upon vehicle speeds and CO₂ emissions are also available. The model is also capable of predicting impacts within discrete geographical areas, for example for each of the five main West Yorkshire Centres; smaller satellite towns; by District and County-wide. Impacts for both morning peak period and inter peak are achievable, together with predictions of future year conditions.

Forecasts

17. The demand for travel in terms of vehicle km is currently available from the DETR's TEMPRO program. The predictions of demand for car travel from 1999 to 2006 in West Yorkshire range from 8.5% for the low growth prediction to 15.2% for high growth. The median is 11.9% growth. For 1999 to 2011 the predicted low growth is 14.8% and the high growth is 24.6% with a median of 19.7%

18. These figures should be taken as a 'do-minimum' scenario as they do not take account of the strategies being undertaken as part of the Local Transport Plan.

19. If the West Yorkshire Trend Line, shown in the 'Results of Monitoring' section (above), is projected forward there should be very little traffic growth across the county. However, this does not take into account the economic growth of the region. We consider that the TEMPRO low growth predictions more accurately reflect the underlying trend in traffic growth for the next few years.

Targets

20. The Strategic Transport Model has been used to establish robust targets for the Local Transport Plan. The targets are based on the forecast changes from the 1999 base to 2006. These may be compared with a Do Minimum forecast for 2006.

21. Targets have been set for morning peak travel by car, bus and train inbound across the monitoring cordons for the five main centres. Countywide all day targets are also set for these three modes, based on trips ends within West Yorkshire, and based on the inter peak and am peak output.

22. The Strategic Traffic Model models the am peak hour (0800-0900) and an average inter peak hour. It is assumed that forecast percentage changes in mode use for the morning peak hour will apply equally to the peak period (0730-0930), which is being monitored on the central cordons. Factors to derive weekday car flows have been based on data from the 16-hour Automatic Traffic Count sites (4x am peak hour plus 10.6x the inter peak). Factors for bus and rail use to derive daily patronage have also been taken from a paper relating to Supertram Line 1 (2.70x am peak hour plus 8.05x the inter peak).

23. We recognise that continued increase in road traffic in the county is not acceptable and have therefore set objectives of reducing the rate of growth in road traffic and encouraging a greater proportion of journeys by public transport, cycling and walking. Use of the Strategic Traffic Model has shown that with the likely level of resources and the types of measures proposed it will not be possible in the 5-year period of the Local Transport Plan to actually reduce overall traffic levels.

24. The targets that have been set are based on the Local Transport Plan objectives. The environmental, social and economic objectives relevant to traffic growth are:

- to improve environmental quality and reduce the impacts of transport on air quality and noise;
- to contribute to national and international efforts to reduce the contribution of transport to overall greenhouse gas emissions.
- to improve safety, security and health, in particular to reduce the number and severity of road casualties;
- to improve operational efficiency within the transport system;

25. In addition we have agreed a number of subsidiary objectives that are not considered to be ends in themselves but are important in achieving the primary objectives. These include:

- to reduce the general rate of growth in road traffic and, where feasible, to reduce absolute traffic levels;

26. The full set of targets is given in the Local Transport Plan. These include the Road Traffic Reduction Targets shown in Table 7.

Targets	Start Date	Target Date
• traffic growth not to exceed 5% (16 hour, all roads)	1999	2006
• am peak inbound traffic crossing cordons round Bradford, Halifax, Huddersfield and Wakefield centres not to grow by more than 3%	1999	2006
• am peak inbound traffic crossing a cordon round Leeds centre not to increase	1999	2006

Table 7: Road Traffic Reduction Targets

27. These targets are considered to be realistic targets that take account of the resources that are likely to be available and the impact of the measures that are included in our Local Transport Plan strategy.