Chapter 5: Progress towards targets
### APR Core Indicators Proforma A

#### Chapter 5: Progress towards targets

**Core Indicators**

<table>
<thead>
<tr>
<th>Definitions</th>
<th>Year</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>APR Core Indicators Proforma A</td>
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</table>

**Actual and Trajectory Data**

<table>
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<tr>
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</tr>
<tr>
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<td>2003/04</td>
<td></td>
</tr>
<tr>
<td>2004/05</td>
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</table>

**In part of the data is marked as "No Change in Targets"**

Please note that the table above outlines the core indicators for APR Core Indicators Proforma A. Each indicator is accompanied by its year, value, and trajectory data. The "No Change in Targets" indicates that the target for that specific indicator remains unchanged.
Table 5.1: APR Core Indicators Proforma A
A fundamental element of the Local Transport Plan process is the provision of evidence that the strategies, policies, targets and, ultimately, outcomes of the plan are being delivered. Within the period 2001-06, objectives were set for overarching strategies in Tyne and Wear and a number of ‘core targets’ were also required to be set by the Department for Transport. In this chapter, we report on our performance against these core targets over the past five years. In earlier chapters we have reported more broadly on our achievements towards our overarching objectives for economic regeneration and social exclusion, although no specific targets were required by the Department for Transport to monitor our progress towards these aspirations. In Chapter 6, more detailed analysis is given on our progress towards delivering our strategies for public transport, road safety, sustainable transport initiatives, travel plans and cycling.

Progress in the first Local Transport Plan reported through the Annual Progress Reports has often been predominantly assessed on output indicators that showed the level of work undertaken. This chapter focuses on the outcomes achieved by the investment in transport. In order to ensure that the methods and resources required to accurately measure the progress made towards LTP targets were in place, revisions have been made over the past five years to our monitoring regime. Similarly, there has been on occasions the need to revise our targets where, for example, in the instance of road safety, it was very clear in the early years that Plan Partners would easily reach these targets and, by doing so, would not be stretching ourselves accordingly.

During the course of the first LTP, one of the main lessons learnt has been related to the setting of targets and monitoring the impact of our delivery programmes. In the first LTP, Plan Partners suffered by adopting some of the 10 year plan for transport targets which were unachievable locally. One such example of this was the adoption of the national target for cycling. Although the number of cyclists recorded fluctuated throughout the period 2001-06, we were never on course to achieve this ambitious goal. Furthermore, our monitoring efforts were concentrated on-road, whereas the real growth in numbers of cyclists has been off-road on newly constructed cycle tracks. New monitoring arrangements are now in place for LTP2 to address this issue (see the Local Transport Plan 2006-11, Chapter 12). We are now confident that we have sufficiently robust systems in place to reflect more accurately the impact of our delivery programme.

For the second LTP, in discussions with GONE, we feel we have set targets which are challenging to 2010/2011. However, every effort has been made to ensure these are realistic and achievable. If it proves that these targets are unachievable, for whatever reason, Plan Partners will seek to review these targets with GONE in line with other authorities who have taken this approach throughout LTP1 and have been rewarded for their performance. However, we are confident that, through the lessons learnt in LTP1, this will not be necessary.
Critical Assessment of Progress

Plan Partners are pleased to report that we are on track to meet our target for 2010/11. The target for bus patronage was revised in 2002/03 in the light of challenging market conditions in order to reflect a more realistic, yet still demanding, target for Tyne and Wear. The revised target was set to reduce the rate of decline in bus patronage by 2010/11. This decision reflected the decline in absolute numbers of bus passengers at the time. These revised targets were discussed with Government Office for the North East who agreed that the target to reduce the rate of decline in bus patronage was sufficiently challenging for the area.

Justification of Assessment

Like most Metropolitan areas, with the exception of London, bus patronage in Tyne and Wear has been in decline in recent years.

The expectation of Plan Partners was that this trend would continue until 2005/06 but that the rate of decline would slow, taking into consideration our bold investment proposals from the integrated transport block and major schemes. Continued investment in and advertisement of Superoutes, interchange facilities and a plethora of bus priority measures are anticipated to yield patronage growth for the period up to 2010/11. The targets for bus patronage in LTP2 also reflect the recent changes in concessionary travel announced by Government. Based upon our target to reduce the rate of decline, our trajectory data suggested that, in 2005/06, annual bus boardings would have fallen to 123,300,000. Plan Partners are pleased to report the actual figure was 129,282,000 so, at this stage, we are ahead of our target for this indicator.

Patronage on services operating on Superoutes has shown encouraging growth over the last few years, as the graph below illustrates. 14% more passengers were carried in the first quarter of 2006 compared to 2005, even though one route had been withdrawn from the network. This reflects the successful partnership between Plan Partners and the main bus operators in Tyne and Wear.

**Bus Patronage**

![Figure 5.1: Bus patronage in Tyne and Wear](image1)

![Figure 5.2: Superoute patronage in Tyne and Wear.](image2)
Future plans for growth in bus patronage

Plan Partners are continuing to invest in new bus priority measures, improved information and infrastructure and, in particular, are expanding the Superoute network to build on the proven success of the concept. A new Superoutes Board has been set up to take the programme forward, with senior representation from all Plan Partners and the main bus operators at Managing Director level. We now have in place working groups delivering Performance Improvement Plans and marketing and promotion campaigns which further emphasises the importance we assign to Superoutes. If current indications of success continue, we are confident that we will continue to meet our targets throughout the life of LTP2.

The changes in concessionary travel are also expected to improve our levels of bus patronage. By April 2007, we should have reliable information which will enable us to determine the influences of this scheme.

(The public transport section of Chapter 6 gives more detailed information about Superoutes in Tyne and Wear).

Plan Partners are also engaged in the Transport Innovation Fund programme. Pump priming funding has been made available to look at more robust demand management strategies for Tyne and Wear that include congestion charging or road pricing. Towards the latter end of LTP2, more stringent forms of demand management will assist in modal switch to public transport which should contribute greatly to Tyne and Wear’s targets for public transport patronage.

Critical Assessment of Progress

From the information available, there is no clear evidence in Tyne and Wear to confidently state whether we are on track to meet this target or not.

Justification of Assessment

Some of the Plan Partners in Tyne and Wear measure bus passenger satisfaction annually, whereas others measure it triennially. This has the effect of Plan Partners only being able to report progress every three years. In 2000/01, 67.8% of users (defined as anyone who had used public transport in the last 12 months) were satisfied with bus services. In 2003/04, the equivalent figure reported in the Annual Progress Report was 61.4%. The next survey is due to take place this year and the target is a Tyne and Wear average figure of 67%.

It is unclear at this time whether Plan Partners will be on track to meet our target for bus passenger satisfaction. However, we are confident that, based on the improvements we have made in the last three years to infrastructure (including bus priority measures and selective vehicle detection at traffic signals), new vehicles, real time information systems and safety and security, that passengers will reflect these improvements in their rating of the services. We are confident that the quality of our major public transport schemes, Centrelink, Quaylink and Route 19 (Stephenson Link) alone will improve peoples’ satisfaction rating. In addition to this, we are hoping our commitment to enhancing provision on Superoutes over recent years and more so in the future, should be reflected by respondents in 2006.

Therefore, although there is no clear evidence at this time to say categorically that we are on track to meet our target for bus passenger satisfaction, we are confident that we will achieve our goals.

Remedial action taken

Until results are obtained for 2006, there are no specific remedial actions determined as yet. Provisions to improve public transport are reported above. If, however, there are no signs of improved satisfaction rating, appropriate remedial actions will be prioritized in future LTP annual programmes. Plan Partners are committed to improving public transport provision as part of our drive to promote sustainable transport options. We aim to make public transport the mode of choice and not necessity in future years. This is reflected in our investment plans for LTP2 and will underpin future major scheme bids.

Critical Assessment of Progress

Regrettably, Tyne and Wear Plan Partners are ‘not on track’ to meet our cycling target to quadruple the number of cycling trips by 2010. Cycling levels have fluctuated during LTP1, and results for 2005/06 showed cycling levels to be 2% higher than in 2000/01.

Justification of Assessment

Clearly, the information presented in Figure 5.3 demonstrates that, across Tyne and Wear as a whole, Plan Partners are not on track to meet our target for cycling. There have been areas of notable success which are reported in detail in Chapter 6.
Remedial action plan

Failure to deliver our target is believed to be a result of the following factors:

- **An inappropriate target was set at the start of the Local Transport Plan period**
- **Difficulty ensuring regular maintenance of cycling infrastructure; and**
- **Weaknesses in our monitoring approach.**

Unlike many authorities in the country, Tyne and Wear have not renegotiated targets for cycling. As a result, we have persisted in the pursuit of our original targets which have been ‘unachievable’. We have learnt from this process and have set challenging targets for LTP2. However, we feel these targets are achievable without having to re-base targets year on year. The target for LTP2 is to increase cycling by 5% by 2010/11 from a base year of 2003/04. This target also ties in with our links to the public health objectives in our community strategies.

In our Annual Progress Reports for LTP1, the cycle trips reported were based on the number of trips across a series of screen lines, expressed as a 4 year rolling average. These results showed a decrease in the number of cycle trips recorded. Naturally, this resulted in failure to meet our target year on year. Fundamentally, this method partly resulted in our failure as the screen lines were located on main distributor roads that are heavily used by motor vehicles. The figures reported did not include off-road cycling trips and therefore could not be considered to be an accurate reflection of cycling in Tyne and Wear overall. As more funding was dedicated to off-road cycle track provision, this error became compounded.
In order to gain better understanding of the scale of the problem, Plan Partners commissioned Sustrans Research and Monitoring Unit in 2002/03 to undertake a more widespread cycle survey. A similar survey was originally carried out by Sunderland University in 1997/98, and the Sustrans survey was intended to repeat this exercise. Using the original methodology, the survey showed an overall increase in cycling in Tyne and Wear of +5% since 1997/98. Clearly, this growth has not been reflected in our screen line surveys on the main distributor roads, although it does probably reflect our successes in promoting cycling as a mode of transport and recreational pursuit.

**Tyne and Wear Cycle Trends**

Following submission of the Sustrans report, Plan Partners were invited by the Department for Transport to discuss a new approach to cycle monitoring. Gateshead has now been chosen as a pilot authority to work with DfT in developing a new approach to monitoring cycle use applying this new methodology.

Plan Partners are now confident that a more accurate measure of the number of cycling trips will be reported across Tyne and Wear. Plan Partners have begun to address the problem by installing a new monitoring regime. This involves the installation of new automatic counter sites, both on and off-road, that will provide more accurate and more comprehensive data.

<table>
<thead>
<tr>
<th>Year</th>
<th>Counter Sites in Tyne and Wear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997/98</td>
<td>27</td>
</tr>
<tr>
<td>2002/03</td>
<td>57</td>
</tr>
<tr>
<td>2005/06</td>
<td>70</td>
</tr>
</tbody>
</table>

Tyne and Wear now has 70 automatic counters and 20 manual counters. As more schemes are delivered throughout LTP2, automatic counters will be built in to the scheme as a matter of course. We are keen in Tyne and Wear to get recognition for the large scale of investment in cycling we are putting in from the integrated transport block and contributions from other sources, such as private developers.

![Figure 5.5: Cycling in Tyne and Wear taking into account an improved monitoring regime.](image)

![Figure 5.6: Results from a sample of 10 pedal cycle count sites covering on and off-road tracks](image)
Cycle Count Sites in Tyne and Wear.

Cycling levels across Tyne and Wear have fluctuated throughout LTP1, but are now 5% higher than those recorded in 2000-01 according to the Sustrans report. Examples of this level of growth are given in Chapter 6. However, outcomes on specific routes or in city/district centres are even more positive with, for example, cycling levels increasing by over 100% between 2001 and 2006.

In Gateshead, monitoring has indicated that, during the LTP1 period, the creation or improvement of cycle routes has encouraged the use of cycles. On the East Gateshead cycleway, trips have increased from 5,840 in 2000 to 10,220 in 2005 when the route was extended to link Heworth to the town centre.

While cross-river cycle trips on the Tyne Bridge have remained stable at around 50,000 trips per year, the introduction of the Gateshead Millennium Bridge has seen an additional 94,000 per year being generated between Gateshead and Newcastle; an increase of 186%.

Road Casualties

Number of deaths and serious injuries (KSI) on the local road network (all ages)

Critical Assessment of Progress

Plan Partners are pleased to report that we are on track to meet this target.

Justification of Assessment

The national core targets were adopted for road safety in the Local Transport Plan. The aim was to reduce the overall number of deaths and serious injuries by 40%. In numeric terms, the target was a reduction from a KSI figure of 603 (average for the years 1994 to 1998) to 362 by 2010. The trajectory target for 2005 was 399 but the actual figure achieved in Tyne and Wear for KSIs was 378. Figure 5.7 shows the progress in Tyne and Wear over the last five years which reveals that we are on track to meet this target.
Number of children killed and seriously injured (KSI) on the local road network

Critical Assessment of Progress
Plan Partners are pleased to report that we are on track to meet this target.

Justification of Assessment
The national core targets were adopted for road safety in LTP1 for this indicator. The aim was to reduce the number of child deaths and serious injuries by 50%. In numeric terms, the target was a reduction from a KSI figure of 147 (average for the years 1994 to 1998) to 74 by 2010. The trajectory target for 2005 was 99 but the actual figure achieved in Tyne and Wear for KSIs was 67. Figure 5.8 reveals progress towards this target over the last five years in Tyne and Wear.

Remedial action for road safety targets
No specific remedial action is required. Plan Partners will continue with existing strategies which have proved successful to date, emphasising education, engineering and enforcement. As most high-risk sites have already been addressed, work will concentrate on the intersections of our key strategic corridors and on neighbourhood safety improvements.

Figure 5.8: Child deaths and serious injuries in Tyne and Wear.
Critical Assessment of Progress
Regrettably, Plan Partners are not currently on track to meet our target for light rail patronage.

Justification of Assessment
Over the LTP period Metro patronage initially increased with the opening of the Sunderland extension in 2002/03. Patronage peaked in 2003/4 at just under 38 million journeys per year. Since 2003/4 Metro patronage has declined by 5.5%.
The main contributor to the downturn in patronage levels in 2004/05 and 2005/06 was the reduction in fraudulent travel. Through a combination of the revenue protection strategy and the increase of the standard penalty fare from £10 to £20, the number of fraudulent journeys across the system in 2005/06 was reduced by 1 million in each year. However, as all journeys, including fraud, are included in the patronage figures this impacted directly on the outturn figures for both years.

Remedial Actions for Light Rail Target
A number of plans are in place to stem the loss of Metro patronage and these are outlined below. However continuing efforts to remove fraudulent travel from the system will have a positive impact on revenue but a less positive impact on patronage figure.
In December 2005 there were substantial alterations to the Metro timetable which included enhanced peak hour services on the central section of the system, with trains running every 3 minutes between Pelaw and South Gosforth. Enhanced services were also provided for passengers travelling towards Regent Centre and West Monkseaton. It is hoped this will encourage transfer from road to Metro on the congested highway network in central Tyneside.
There have also been substantial alterations to the service towards Sunderland where Metro and heavy rail services have been realigned to provide a more even headway. To accommodate these enhancements the service on the lightly used South Hylton branch has been reduced.
The introduction of the Metro Goldcard for the elderly and disabled allows unlimited Metro travel for just £8 per year. Uptake of this scheme has exceeded expectations and initial figures suggest an increase in usage amongst this passenger group. There are also a number of other fare initiatives designed to increase ridership, including the introduction of new ‘hopper’ tickets designed to make short trips on Metro more attractive, and substantially cheaper season tickets, aimed at commuters. Nexus has recently entered an agreement with central government whereby Metro fares will not rise by more than inflation plus 1% thereby ensuring Metro remains competitive.
In addition to the recently opened Northumberland Park station, work is underway on the systems 60th station at Simonside in South Tyneside, a project which will further increase the number of people with access to the Metro system.
Initial patronage figures suggest that these schemes combined are already delivering patronage growth of between 2.5% and 3%.
Metro will continue to invest annually in maintaining and improving the system to ensure reliable operation and improved facilities for passengers In the longer term, Metro reinvigoration is a key project for delivering patronage growth. The planned investment of £500 million is designed to transform the Metro into a modern rapid transit system which will provide an attractive and competitive alternative to Tyne and Wear motorists.
Infrastructure maintenance is a fundamental part of an effective Local Transport Plan. Highways are the only part of the strategic network that everyone has to use, and the impact upon individual quality of life of a safe well maintained highways system cannot be underestimated. Approximately £65 million was spent during the lifetime of LTP1 on maintenance of roads and bridges.

Specific challenges during the lifetime of LTP1 have affected the manner in which maintenance has been carried out in the conurbation.

These have included:
- An increase in car ownership and use and related wear and tear of existing assets;
- An increase in the number of capital assets due to improved levels of funding via the LTP process;
- Ensuring support for the Superoutes network and other associated road space re-allocation initiatives;
- The introduction of transport asset management protocols and the development of a Tyne and Wear-wide HAMP/TAMP;
- The requirements of the Network Management Duty.

Highways and bridge engineers have worked hard during the period 2001-2006 to ensure that standards of maintenance are of a high level, and that the best use of existing assets and new resources is made.

The Tyne and Wear maintenance regime has been based around two key areas:
- Preservation and enhancement of existing infrastructure
- Improved management of asset maintenance

Efficient actions and targets have been designed to
- Promote walking and cycling
- Contribute to road safety
- Promote the quality and comfort of bus services
- Improve journey ambience
- Minimise wear and tear on vehicles
- Promote better environmental outcomes including reduced emissions and noise

<table>
<thead>
<tr>
<th></th>
<th>Gateshead</th>
<th>Newcastle</th>
<th>North Tyneside</th>
<th>South Tyneside</th>
<th>Sunderland</th>
<th>Tyne and Wear</th>
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<tr>
<td>Principal Roads</td>
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<td>61.76km</td>
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<td>B Roads</td>
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<td>48km</td>
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<td>44.7km</td>
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<td>C Roads</td>
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<td>33.5km</td>
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<tr>
<td>Unclassified Roads</td>
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<td>728.1km</td>
<td>640km</td>
<td>620km (est)</td>
<td>877.5km</td>
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<td>Footway/Footpath (Category 1,1a &amp; 2 Only)</td>
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<td>145.3km</td>
<td>51.46km</td>
<td>98.5km</td>
<td>455.87km</td>
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</table>

Table 5.2: Size of road network for each authority
Performance against targets

Figures 5.11 to 5.16 indicate the condition of the principal road network for each of the Plan Partners, for the period 2001 - 2006. The results for the period 2005/06 have been compiled using SCANNER based methodology, and thus are not directly comparable with previous years.
Critical Assessment of Progress

Condition of the network in 2005/06.

<table>
<thead>
<tr>
<th>Principal Roads (BV 223)</th>
<th>Benchmark</th>
<th>Actual</th>
<th>Performance</th>
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<tbody>
<tr>
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<td>9%</td>
<td>+3%</td>
</tr>
<tr>
<td>Newcastle</td>
<td>12%</td>
<td>17%</td>
<td>-5%</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>12%</td>
<td>10%</td>
<td>+2%</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>12%</td>
<td>14%</td>
<td>-2%</td>
</tr>
<tr>
<td>Sunderland</td>
<td>12%</td>
<td>12%</td>
<td>+0%</td>
</tr>
</tbody>
</table>

Table 5.3: Condition of principal roads

SCANNER surveys (carried out for the first time in Tyne and Wear for the period 2005/06) indicate that three of the five highways authorities in the plan partnership have met or exceeded the Government’s benchmark for good road condition. Although Newcastle and South Tyneside have not met this benchmark, these partners only failed to meet the target by a small amount.

It is difficult to assess the partners’ progress against the targets set for principal road condition as part of LTP1. This is because these targets were set using deflectograph principles and then monitored using CVI methodology. The reason for setting the initial target using deflectograph results is because CVI data was not available for all of the authorities in Tyne and Wear using this base year.

Aspirational trajectories were, however, set using CVI as a basis. For the year 2004/05 (the last trajectory year where a direct comparison is possible) all of the Plan Partners were on-target to meet the target for principal road condition.

Trajectories for highways maintenance can be seen in the core indicators table.

Justification of Assessment

As Figures 5.12 – 5.17 show, it is difficult to define a trajectory for road condition for the period 2001 – 06. The base year from which the partners have drawn their observations was based upon a deflectograph methodology, as coarse visual inspection (CVI) data was not available for all of the partner authorities at that time. However, CVI data in accordance with BVPI methodology became available for subsequent years.

This data did not however allow the partners to ascertain a road condition trend with any certainty as the methodology for measuring BVPI 223 (previously known as BVPI 96) has been changed at a central government level several times throughout the plan period.

As a result of this, the partners welcome the opportunity to use 2005/06 and the more reliable SCANNER method as a base year to measure future trends in road condition throughout the period of LTP2.

Remedial Action Taken

As part of a general initiative to improve working practices and implement a value for money maintenance regime, the partners have begun to develop a Highways Asset Management Approach (HAMP) to maintenance. The full effects of this approach will become clearer as a trend of SCANNER results is established.
Figures 5.17 - 5.22 indicate the condition of the non-principal road network for each of the Plan Partners, for the period 2001 - 2006. The results for the period 2005/06 have been compiled using SCANNER based methodology, and thus are not directly comparable with previous years.
Critical Assessment of Progress

<table>
<thead>
<tr>
<th>Non Principal Roads (BV 224a)</th>
<th>Benchmark</th>
<th>Actual</th>
<th>Performance</th>
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<tbody>
<tr>
<td>Gateshead</td>
<td>12%</td>
<td>15%</td>
<td>-3%</td>
</tr>
<tr>
<td>Newcastle</td>
<td>12%</td>
<td>15%</td>
<td>-3%</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>12%</td>
<td>24%</td>
<td>-12%</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>12%</td>
<td>25%</td>
<td>-13%</td>
</tr>
<tr>
<td>Sunderland.</td>
<td>12%</td>
<td>16%</td>
<td>-4%</td>
</tr>
</tbody>
</table>

Table 5.4: Condition of non-principal classified roads

SCANNER surveys (carried out for the first time in Tyne and Wear for the period 2005/06) indicate that all five highways authorities in the plan have failed to meet the 12% threshold set by government as the benchmark for good road condition. However, three of the Plan Partners have only just failed to meet this target. As this is the first year of SCANNER based results for the region, it is not possible to ascertain using this type of data if the road condition trajectory is one of improvement.

It is also difficult to assess the partners’ progress against the targets set for non-principal road condition as part of LTP1. This is because these targets were set using deflectograph methodology, and subsequent years up to 2004/05 monitored using CVI techniques. The reason for setting the initial target using deflectograph results is because CVI data was not available for all of the authorities in Tyne and Wear using this base year.

Justification of Assessment
Corporal priorities, particularly those based around economic development, have meant that more funding has been directed at maintaining and improving the principal road network in Tyne and Wear. This has meant that upon occasion less funding has been available for the improvement of the non-principal network.

In addition, an increase in freight related traffic – particularly from the construction industry has placed pressure on the highways network.

Remedial Action Taken
As part of a general initiative to improve working practices and implement a value for money maintenance regime, the partners have begun to develop a Highways Asset Management Approach (HAMP) to maintenance. The full effects of this approach will become clearer as a trend of SCANNER results is established.

As part of a comprehensive sustainable distribution strategy for Tyne and Wear, a preferred routing network for HGVs has been developed in order to address the issue of goods vehicles using unsuitable roads.
Figures 5.23 - 5.28 indicate the condition of the unclassified road network for each of the Plan Partners, for the period 2001 - 2006. The results have been compiled using CVI methodology.
Critical Assessment of Progress

All five of the highways authorities in the partnership have exceeded DfT’s benchmark of 12% for good condition of unclassified roads. This particular indicator was measured using a CVI based methodology.

As with the other road condition indicators it is difficult to assess the partners progress against the targets set for unclassified road condition as part of LTP1. This is because these targets were set using deflectograph principles and then monitored using CVI methodology. The reason for setting the initial target using deflectograph results is because CVI data was not available for all of the authorities in Tyne and Wear using this base year.

Aspirational trajectories were set using CVI methodology. For the year 2005/06 all of the plan partners were on-target to meet the locally set target for principal road condition.

Justification of Assessment

The various corporate plans and their associated community strategies identify maintenance of residential roads as being an important consideration of the partners. As a result of this, funding has been directed towards the appropriate maintenance of the unclassified road network.

Remedial Action Taken

No remedial action has been necessary as the partners are on-track for this particular target.

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### Unclassified Roads

<table>
<thead>
<tr>
<th></th>
<th>Benchmark</th>
<th>Actual</th>
<th>Performance</th>
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<tr>
<td>Gateshead</td>
<td>12%</td>
<td>6.20%</td>
<td>+5.80%</td>
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<td>12%</td>
<td>7.62%</td>
<td>+4.38%</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>12%</td>
<td>7.69%</td>
<td>+4.31%</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>12%</td>
<td>3.96%</td>
<td>+8.04%</td>
</tr>
<tr>
<td>Sunderland</td>
<td>12%</td>
<td>7.26%</td>
<td>+4.74%</td>
</tr>
</tbody>
</table>

Table 5.5: Condition of unclassified roads
Case Study

A1231 Hylton Grange Interchange
Location: Sunderland

Date of works: 2004

Description of Scheme: The A1231 Hylton Grange Interchange scheme was a hybrid scheme that encompassed different highway and traffic elements in order to meet statutory as well as LTP policy requirements. The majority of the work was funded through LTP capital in the form of maintenance as well as integrated transport allocations. The measures described below were aimed at increasing the life of the carriageway, reducing accidents and reducing traffic disruption.

The scheme is located on a busy interchange between the A19 trunk road which is maintained by the Highways Agency and the A1231 Washington Highway. The works were carried out in conjunction with bridgeworks carried out by the Highways Agency/ Autolink. In order to keep disruption and congestion to a minimum the majority of the works were completed overnight and off-peak.

Specific measures included:
• Strengthening and resurfacing of the carriageway including the application of HSFD at the approach to the junctions.
• The provision of new safety fencing
• The renewal of and provision of road markings
• The provision of SCOOT for improved traffic signal operation
• The improvement of street lighting and provision of new signing.

Other work carried out at the same time included routine maintenance works although this was funded through revenue.

Benefits for LTP Objectives: The measures address several LTP1 objectives and targets, including combating traffic congestion, improving safety and preservation of existing infrastructure. Other benefits include supporting sustainable economic growth and increasing efficiency of traffic flow. Initial findings indicate that the number of accidents has decreased since 2004 and that there has been improved traffic flow around the interchange. The expected structural life of the carriageway has also increased.

Cost: £220,000
Case Study

South Tyneside

A1018 King George Road Overlay

The A1018 is the primary gateway to South Tyneside from the neighbouring city of Sunderland (with the exception of the A19 which is not maintained by South Tyneside). The A1018 provides an important strategic corridor within South Tyneside linking dense residential areas to employment, educational, retail and leisure opportunities. Throughout the life of LTP 1, this corridor has seen significant investment in highways infrastructure particularly in relation to public transport priority, bus stop and cycling improvements.

The King George Road section of the A1018 is an urban dual carriageway with lane widths of 6.5 m (21’). This dual carriageway section extends for approximately 2.2 km from Nevinson Avenue roundabout to Cauldwell roundabout. The construction is jointed reinforced concrete with transverse joints at regular 6 m centres which gives an exceptionally poor ride quality.

The existing kerbing is 125 x 150 mm presenting a 100 mm face. This causes the kerbs to be particularly susceptible to being dislodged by vehicle impact.

CVI surveys carried out in 2004/05 indicated that virtually the full length of the concrete dual carriageway on King George Road contributed towards failure to meet the best value performance indicator BVPI 96. The road surface was also polished by constant vehicle use resulting in various sections requiring investigation following grip test surveys in 2004.

Poor ride quality combined with a requirement to improve the BVPI results resulted in this road being selected for overlay. Available budgets and engineering constraints meant that the 1 km section between Nevinson Avenue and John Reid Road Roundabouts was selected for treatment.

In order to reduce costs it was decided not to excavate the current road construction which comprised 300 mm of reinforced pavement quality concrete. The kerbing was renewed, rocking concrete bays were replaced and all transverse joints resealed. The road surface then received a thin wearing course and any joints that had previously shown signs of distress were cut and resealed to control any subsequent cracking.

Benefits for LTP Objectives

Buses and cycles are particularly sensitive to poor quality road surfaces and as such the surface improvements to this section of the A1018 have added value to the other highway infrastructure improvements on the corridor. These improvements contribute to LTP accessibility objective to improve access and enhance opportunities to a full range of facilities and activities especially for those without access to a motorcar. The highway investment into the A1018 corridor has been recognised by public transport operators who have invested in an improved fleet of vehicles through the Superoutes bus quality partnership.
Case Study
North Tyneside
A189 Spine Road – Resurfacing Improvements

Synopsis
£300,000 resurfacing scheme between A1056 roundabout and Benton Lane roundabout.

Background
Before this scheme was introduced, condition surveys indicated that there was a need for early maintenance intervention. This presented a cost benefit opportunity to reduce the maintenance spend required across the whole life of the road. The new scheme has resolved condition problems experienced by the road and has increased the lifespan of the route in its current form. A secondary benefit is that noise pollution from traffic use has fallen.

Project description
Removal of existing deteriorating road surface along both directions of the dual carriageway and replacement with new thin surfacing material to provide improved skidding resistance, less road noise and improved resistance to deformation caused by vehicle loading.

Consultation
Early notification was undertaken with the Police traffic section, ward Members and Cabinet Members and advanced information signs were situated along the route prior to commencement. The scheme has complied with the objectives of the LTP by “improving road safety, reducing the adverse impact of transport on our environment, with regard to air quality, noise and its contribution to climate change and resource consumption.”
Case Study

Metro maintenance

The Metro is a very important element of the public transport system in Tyne and Wear. Most of the present system was constructed in the late 1970s and early 1980s as the centrepiece of an integrated public transport network for Tyne and Wear. The new light rail system comprised of some new build but also utilised former suburban rail lines with a mix of infrastructure, some of which goes back to the Victorian railway. The Metro was extended to Newcastle Airport in 1991 and to Wearside in 2002. A new station was opened at Northumberland Park (North Tyneside) in December 2005 and a further station is planned to open at Simonside (South Tyneside) in 2007.

Metro operates a fleet of 90 Metrocars over 78 km of track of which 59 km are owned and maintained by Metro. The remaining 19km of track (between Pelaw and South Hylton) are owned by Network Rail and maintained by them under contract arrangements (a Track Access Agreement between Nexus and Network Rail and approved by the Office of Rail Regulation).

With a staff around 700, Metro is responsible for the operation, maintenance, construction and renewal of the Metro system which includes:

- Permanent Way
- Signalling
- Telecommunications
- Power Supplies
- Overhead Line
- Stations

LTP 1 strategies and funding allocations recognised the importance of maintaining existing inherited and historic transport infrastructure so as to support the delivery of future transport strategies. The Metro maintenance and renewals programme received £12.3m investment during the life of LTP 1. This investment was committed to both maintaining the system and upgrading facilities to improve amenities and systems for passengers.

Metro customer tracking consistently reveals the most important element required by Metro users is a reliable service. A number of important features of Metro ensure a safe and reliable service is provided:

- The Control Centre at South Gosforth station undertakes the role of Metro infrastructure/liaison with Network Rail and operations management;
- The Rolling Stock Depot at South Gosforth maintains the Metro vehicles and other rolling stock;
- Two hundred structures (bridges, viaducts, tunnels, culverts) need to be maintained in a safe and useable condition;
- There are twelve level crossings (five of which are public road crossings);
- Electrical sub-stations provide power for the overhead line network;
- Relay-based interlocking signalling systems, incorporating an automatic train stop system, ensure safe operation;
- A positive train identification system (PTI) which controls train movements and records operational data, also relays real time train information to passengers;
- A supervisory control and data acquisition system (SCADA) controls the overhead line power network and the monitoring of plant and equipment in remote locations such as stations;
- A radio system incorporating a cab secure system enables effective communications to be maintained between trains and the Control Centre (and with Tyneside IECC when running on Network Rail infrastructure).

During the life of LTP1, Nexus undertook a comprehensive study of the information available relating to the Metro infrastructure. Every asset was considered in terms of its original life expectancy and the regimes in place to ensure that this was met or exceeded.

An Asset Renewal Plan has been developed that represents the work required to maintain the assets in good condition through maintenance, refurbishment or renewal. Continuous inspection regimes are in place to inform and update the programme time scales. Where available, or attainable, current prices for replacement of equipment, development costs and contract work are included.
The plan is a live document that is updated to provide a rolling five year programme of works.

Investment during the life of LTP1 has seen the following maintenance and renewals to Metro:

- Remedying a number of problems as they arose such as a landslip at Benton that required sheet piling of the embankment and problems with the embankment at Heworth Metro. Both problems produced temporary speed restrictions until they were rectified;
- The Disability Discrimination Facilities and Access Audit and the Stations Conditions Survey have been used to prioritise the required passenger and facility improvements to stations;
- General maintenance and improvements to both Metro operational systems (particularly trainstop control equipment) and essential passenger facilities such as lifts and escalators and improved ticket machines;
- Replacing essential equipment as it becomes life expired, including passenger escalators at Monument and Central Station.

Much of the investment in maintaining a reliable service is not readily seen by the passenger but over recent years passenger satisfaction with the reliability of Metro has remained constant at around 55%-60% with actual reliability at over 98%, and punctuality over 92%. Investment in maintaining and renewing Metro has been reflected in the high level of passenger satisfaction with reliability of ticket machines, station announcements and lifts and escalators.
Case Study
Bridge maintenance
Lemington West Bridge
Strengthening

Synopsis
This case study looks at the works carried out during 2004-05 by Newcastle City Council to strengthen the Lemington West Bridge and improve safety at the adjacent road junction.

Background
Assessment of the bridge and parapets at Lemington West had identified it to be substandard, posing a safety risk to the travelling public. In addition, the layout of the junction failed to meet the needs of its many users: pedestrians, private cars, public transport and cyclists. The project involved bridge engineers and highways engineers from the maintenance group along with engineers from the integrated transport group.

Project description
The works involved strengthening the masonry arch and the construction of new parapet edge beams with the erection of new parapets over the bridge. Additionally, extensive safety fencing was introduced to protect the approaches to the bridge. The bridge provides a vital link for both public transport links and goods vehicles serving local industrial units, shops and schools. Pedestrian facilities existed adjacent to the bridge via a footbridge which was refurbished at the same time. The junction now provides a safe environment for its many users.

Monitoring
Surveys and consultations with local businesses, residents and users of the route took place prior to the works being undertaken which highlighted the integrated transport issues at the site as well as the maintenance issues. Follow-up consultations and surveys are being carried out to identify the local members, businesses and residents perception of the improvements.

Consultation
The initial scheme proposed for this site concentrated only on the strengthening of the bridge but, as part of the consultation process, integrated transport engineers as well as local Members and the public were consulted to provide a scheme which addressed the many concerns which existed at this junction.

Partnership arrangements
During the project, a partnering approach was developed with our framework contractor whose early involvement helped deliver this successful project. Co-operation was given by local businesses, bus companies and residents to progress the works. Funding came from the LTP bridges and highways maintenance budgets.
Case Study

Benfield Road Interchange Improvements

Synopsis
This case study looks at the works carried out during 2002-03 by Newcastle City Council to strengthen the highway structures and improve the interchange at Benfield Road over the A1058 Coast Road.

Background
Assessment of the bridge, retaining walls and parapets of Benfield Road interchange structures had identified it to be substandard, posing a safety risk to the travelling public. In addition, the layout of the junction failed to meet the needs of its many users: pedestrians, private cars, public transport, local freight traffic and cyclists. The project involved bridge engineers and highways engineers from the maintenance group along with engineers from the integrated transport group.

Project description
The works involved the strengthening of the parapets and parapet edge beams on both the bridge deck and retaining walls. Additionally, the bridge deck was waterproofed and the bridge joints replaced. Major concrete repairs to the structures were also undertaken.

Monitoring
Surveys and consultations with local businesses, residents and users of the route took place prior to the works being undertaken which highlighted the integrated transport issues at the site as well as the maintenance issues.
On completion of the works further consultation and surveys were carried out which have identified the benefits realised by all users of the route. It now provides a safe environment for its many users.

Partnership arrangements
During the project a partnering approach was developed with the main contractor who also worked with Cityworks traffic signals group, to deliver the project. Co-operation was given by local businesses, bus companies and residents to progress the works. Funding came from bridges, highways, cycling and accessibility groups.

The bridge provides a vital link for both public transport services and freight vehicles serving local industrial units, shops, schools and university buildings.

Full pedestrian facilities were introduced and cycle lanes were taken over the bridge and linked with cycle routes to the local schools and university halls of residence.
Case Study

A187 Hadrian Road - Bridge Strengthening

Synopsis
Hadrian Road Bridge was strengthened as part of North Tyneside Council’s ongoing bridge maintenance programme. The scheme involved carbon fibre plate bonding and replacement of the centre span at a cost of £1,600,000. The scheme was partly funded from LTP1.

Background
Hadrian Road Bridge is a multi span reinforced concrete viaduct supported on a series of composite piles. It is located in Wallsend and carries the A187 Hadrian Road over Willington Gut, a tidal tributary of the River Tyne. The A187 is designated as a heavy load route for abnormal loads and directly links the docks at North Shields with the shipyards and other heavy industry on the banks of the Tyne.

The bridge has a history of problems resulting in surfacing and joint failures; some concrete elements were in poor condition with corrosion and cracking evident. The structure was assessed in 2002 and found to be structurally deficient, an 18 tonne weight limit being imposed on the bridge which had serious implications for the abnormal load route.

Design and Consultation
The design of the strengthening scheme was carried out in accordance with the Design Manual for Road and Bridges, published by the Highways Agency.

Project Description
The aim of the scheme was to strengthen and repair the bridge superstructure, substructure and parapets. The central span was completely removed and replaced whilst the remainder of the structure was strengthened using carbon fibre plate bonding to keep weight increase to a minimum.

Services on the western side of the bridge were temporarily diverted away from the structure so that the centre span could be replaced.

A temporary footbridge was used to maintain pedestrian traffic during the works; this was re-located at Seaton Burn on completion of the scheme.

Contractors Edmund Nuttall used an innovative solution to remove the centre span, jacking it up and supporting it whilst the new deck and bearing shelves were renewed.

On completion the old deck was lowered onto chocks, cut into blocks and removed from the site.

The concrete encased steel piles supporting the bridge were refurbished and wrapped with a protective tape. Work on the structure took 15 months to complete with the bridge reopened to traffic in June 2005.