



North Tyneside Council

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CAPITA



Highway Asset Management Plan 2012 to 2017

Annual Information Report

November 2014



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INTRODUCTION

The Authority's Highway Asset Management Plan (HAMP) was formally adopted in December 2011 and was implemented on 1st April 2012. This sets out the Authority's strategic approach to highway and infrastructure maintenance. In order to provide regular information about highways and infrastructure the HAMP contains a commitment to provide an annual information report to Cabinet.

The Authority is currently operating within a challenging financial climate. Customer expectations are high and these have to be balanced against available resources. The aim of this report is therefore to highlight issues and provide information to support corporate discussions about the maintenance of the highway network.

All highways and infrastructure services are delivered by Capita Property & Infrastructure under the Authority's Technical Partnering Contract.

VALUE OF THE HIGHWAY ASSET

Under the Whole of Government Accounting procedure, all Authority's are required to submit an annual detailed valuation of their highways and infrastructure assets. The valuation returns are submitted in July. Each year, independent surveys of roads, footways and structures are undertaken to assess their condition. Unit rates are then applied to calculate a total value of the highway assets. The latest submission showed the following valuations:

Roads: £962 million (£955 million in 2013)
Footways: £204 million (£202.5 million in 2013)
Bridges: £386 million (Estimated £350 million in 2013)

The total value of highway assets as of July 2014: **£1,552,000,000** (£1,507,129,000 in 2013). The annual increase in the value of the highway network is attributed to continued enhanced capital investment in highway maintenance, the relatively good summers in 2013 and 2014 and the mild winter experienced in 2013/14 which resulted in less than expected deterioration to the network.



INVESTMENT IN THE HIGHWAY ASSET

The tables below provide a summary of the budgets that have been allocated to highway and infrastructure maintenance over the last 4 years. The focus is on repair budgets and does not include associated highway work such as gully cleansing.

HIGHWAY MAINTENANCE

Budget	Description of Work	2011/12	2012/13	2013/14	2014/15
Revenue	Day to day highway repairs (e.g. potholes), patching programme, small planned road and footpath improvement schemes, drainage repairs	£855k	£855K	£855k	£855K
Local Transport Plan Capital	Annual resurfacing programme, annual surface dressing and micro-asphalting programmes	£460k	£944k	£1,098k	£924K
Council Capital	Area Forum Road & Pavement Recovery Programme	£1m	£1m	£1m	-
Council Capital	Additional Council Capital investment in highway maintenance	-	-	£674K	£2m
Other Capital	Additional DfT budget	-	-	£326K	-
Other Capital	Additional DfT budget – National Pothole Fund	-	-	-	£324K
Other Capital	Additional DfT budget – Severe Weather Recovery Fund	-	-	-	£251K
TOTAL		£2.315m	£2.799m	£3.953m	£4.354m

In the 2014 Budget statement, the Government announced the creation of a Pothole Fund worth £200 million with £168 million being made available to highway authorities in England to help repair damage to the local road network. A bid was submitted by North Tyneside Council for an allocation of this fund which resulted in an award of £324,295 on the 20th June 2014.

Following the period of severe wet weather in December 2013 which caused damage to the national highway network, the Department for Transport provided North Tyneside Council with an additional highway maintenance emergency funding allocation of £251,071 to assist with highway repairs and improvements. This funding was allocated to expand the Authority's preventative maintenance programme which involves surfacing roads with a cost effective material called micro-asphalt to extend their life and improve their appearance.



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BRIDGES AND INFRASTRUCTURE MAINTENANCE

Budget	Description of Work	2011/12	2012/13	2013/14	2014/15
Revenue	Day to day bridge repairs, emergency work, graffiti bus partnership, minor planned schemes	£74k	£74k	£74k	£74k
Local Transport Plan Capital	Major structural schemes (e.g. bridge replacement / refurbishment)	£683k	£579k	£770k	£900k

It can be seen that annual revenue budgets for both highway maintenance and bridges / infrastructure have remained static for many years and currently there are no plans to increase these. Inflation in the construction sector has been disproportionately high with the cost of construction work estimated to be 40% higher than it was 12 years ago. Under the technical partnership with Capita, a business objective is to provide efficiency savings in frontline operations over the next few years. However, there is a finite limit to these efficiency savings and as such there will continue to be a budget reduction in real terms if revenue funding remains static.

CURRENT MAINTENANCE PRIORITIES

HIGHWAY MAINTENANCE

The current priority is to protect and improve where possible the strategic road network (main classified roads). These are the roads that carry the vast majority of local and through traffic. Whilst the strategic highway network remains high priority, work that has been undertaken over the last 2 years has seen an improvement in the condition of the strategic network allowing more resources to be allocated to the improvement of estate roads. The improvement of estate roads remains a challenge and is almost wholly reliant on additional funding that the Authority has provided through the Additional Highway Maintenance capital allocation. Most estate road resurfacing work is now undertaken using this funding stream. This funding has allowed the Authority to re-allocate Local Transport Plan funding to undertake more footway improvement schemes when in previous years this has not been possible.



BRIDGES AND INFRASTRUCTURE

This area of work is undertaken mainly using Local Transport Plan (LTP) funding. Maintenance priorities for major work for the next 5 years are set out in the HAMP. At present the work can be accommodated provided future LTP allocations remain relatively constant. Other than major planned schemes, repair work is reactive due to a relatively modest revenue budget. The current programme is focussed and prioritised on locations and schemes which have been identified as requiring maintenance work or have been identified as requiring work in the next 12 – 18 months following statutory general and principal condition inspections of the Authority's bridges and other infrastructure assets. These inspections are critical in ensuring that the Authority's bridge stock remains in a safe and usable condition for all who use them.

SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS

The I-Roads computer system (Formerly called Scheme Engineer computer system) supports the HAMP and has improved the way work can be planned. The Highways Team was able to develop and finalise the full programme of highway improvement work well in advance of the commencement of the current 2014/15 financial year. This allowed the service to "hit the ground running" with surfacing work commencing in May to take full advantage of the good weather over the late spring and the summer period. The surfacing programme was completed before the end of October 2014.

This included some difficult locations such as the A193 Spence terrace roundabout, A1058 Coast Road, The Silverlink, A191 Whitley Road at Asda and the B1505 Great Lime Road. However, these schemes were well co-ordinated with very little delay to the programme and feedback from customers has been very positive with no complaints received. In order to achieve better value for money we have continued to use alternative construction products including micro-asphalt thin road surfacing treatments on the highway network. By the end of this financial year we will have completed the following works:



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Treatment Type	Area Covered in 13/14	Area Covered in 14/15	Difference (+/-)
Micro Asphalt	140,443m ² (10.8 miles)	170,843m ² (13.15 miles)	+30,400m ²
Full Resurfacing	77,779m ² (4.8 miles)	81,360m ² (7.12 miles)	+3,581m ²
Patching Sites	120 no.	122 no.	+2 no.
Footway Improvement Schemes	129 no.	102 no.	-27 no.
Drainage Improvements	674 no.	645 no.	-29 no.

FOOTWAY IMPROVEMENT WORK

By the end of the current financial year the following footway refurbishment schemes will have been completed:

- Plessey Crescent, Whitley Bay
- Rocket Way, Forest Hall
- Timlin Gardens, Wallsend
- Rudyerd Street, North Shields
- Burnside Avenue, Annitsford
- Windsor Drive, Howdon
- Nicholson Terrace, Forest Hall
- Claremont Crescent, Whitley Bay
- Station Road, Forest Hall
- Warkworth Drive, Wideopen
- Park Crescent, North Shields
- Bede Crescent, Holy Cross
- Dene Road, Tynemouth
- High Street West, Wallsend
- Huntington Road, Tynemouth
- New York Road
- Coast Road, Battle Hill
- Goathland Avenue, Benton
- Norham Road, Monkseaton



Although the schemes detailed on the previous page will provide a tangible improvement to communities they are addressing a very small percentage of the footway network and the approach to footway improvements remains mainly reactive.

BRIDGES AND INFRASTRUCTRE

The following schemes will have been completed by the end of 2014/15 :

- Wallsend Road, North Shields - Bridge Refurbishment Construction Phase 1
- Borough Road, North Shields - Bridge Refurbishment Design
- Station Road / A1058, Wallsend - Parapet Renewal Scheme
- Kings Vale / A1058, Wallsend – Subway Safety Improvement Scheme

CONDITION OF CARRIAGEWAYS (ROAD SURFACE AND NOT FOOTWAYS)

The Authority's I-Roads System is an advanced computer application that has the ability to make accurate cost forecasts based on any number of time and budget scenarios. The system is based on whole life highway maintenance and is able to model the performance of the highway network taking into account the ideal maintenance regime i.e. undertaking preventative maintenance treatment at the most appropriate time to extend the life of the asset.

The system gives each road in North Tyneside a red, amber or green rating. Roads shown green have minor defects and require no structural maintenance. Roads shown as amber are in a condition where maintenance needs to be considered and these roads can be "saved" by undertaking preventative maintenance such as micro asphaltting which will avoid much costlier structural repairs further down the line. The roads shown red are structurally defective – they are beyond the point where they can be saved by preventative maintenance.

In 2012, an exercise was undertaken to model the highway network using budgets at that time and applying an ideal whole life maintenance regime. The results were published in the 2012 HAMP information report.

Following this exercise, it was evident that, even under an ideal maintenance regime, the highway network would deteriorate considerably in 10 years time if the previous



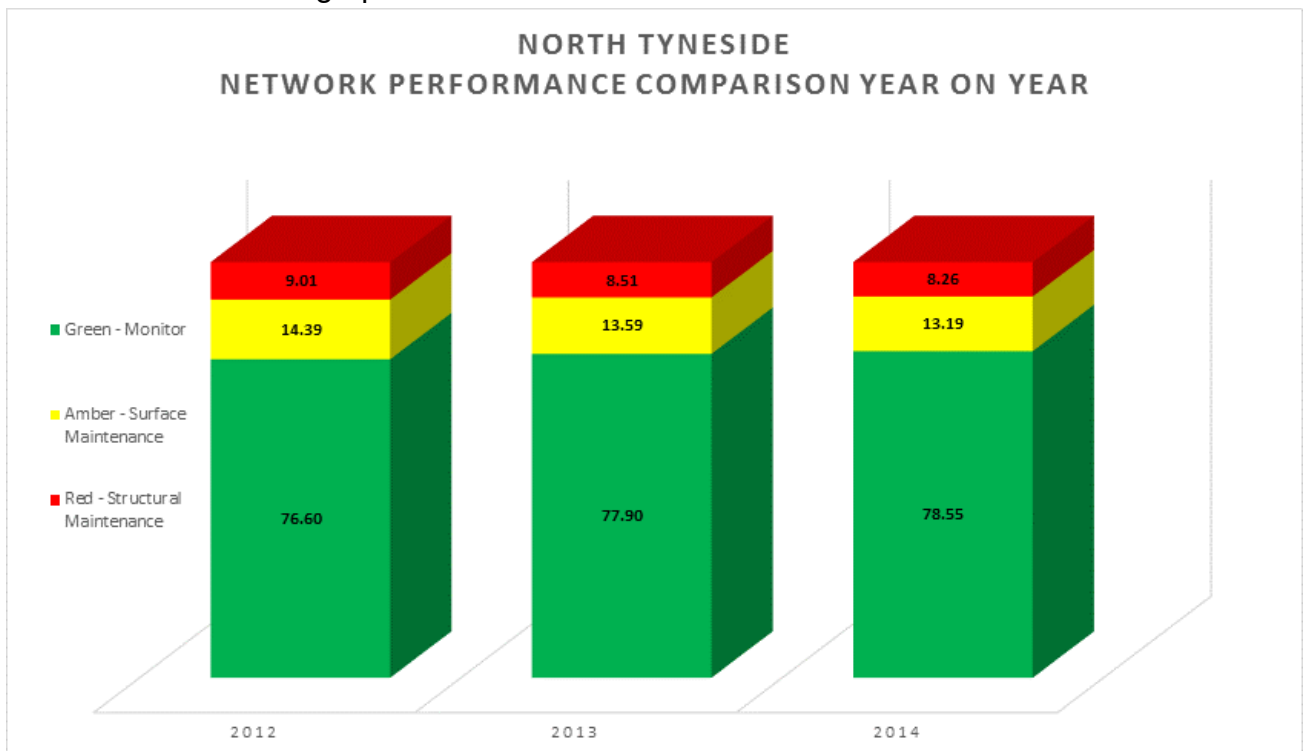
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investment levels remained constant with many of the roads turning to amber and red. The results of this work were presented to Cabinet in 2012 which resulted in an increase in capital investment for highway maintenance.

The Highways Team now has 3 years of accurate data detailing the condition of the entire road network in North Tyneside. From this data a comparison can be made between the present condition of the road network and the condition 3 years ago. This is detailed in the graph below:-



The graph demonstrates that over the last 3 years, through the use of appropriate treatment methods and the increase of Council Capital funding for highways, there has been an improvement in the condition of carriageways. The amount of green roads has increased by nearly 2%. This is significant in that it demonstrates that the investment is enabling the Authority to slow the deterioration of the road network significantly.

CONDITION OF FOOTWAYS

We are currently gathering detailed condition data for the whole of the adopted footway network through the use of the nationally approved Footway Network Survey (FNS) methodology which is being undertaken by Capita. FNS involves a walked inspection which results in a detailed assessment of the footway network. At the time of publishing this report; approximately 40% of the footway network has been surveyed. The results from these surveys are detailed below:



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Type of Footway	Description	Total length of asset	Length surveyed to date
Primary Walking Route	Busy urban shopping and business areas, and main pedestrian routes linking interchanges between different modes of transport, such as railways and bus stops etc.	189 Km	38 Km (20%)
Secondary Walking Route	Medium usage routes through local areas feeding primary routes, local shopping centres, large schools and industrial centres etc.	63 Km	30 Km (48%)
Link Footway	Linking local access footways through urban areas and busy rural footways. To include flagged Local Access Footways.	57 Km	32 Km (56%)
Local Access Footway	Footways associated with low usage, short estate roads to the main routes and <i>cul de sac</i> .	1220 Km	480 Km (40%)

From the surveys undertaken to date, the results show the following works required:

Defect Category	Defect Description and Repair work Required	% of Network
No Defects	Footway surface is free of defects due to being new or nearly new. No repair work required	0.58
Aesthetic or minor defects	Minor defects that don't affect integrity of the footway construction such as small cracks. Minor localised repairs only to restore visual quality of footway.	15.25
Surface Defects	Common surface defects such as cracked paving stones, spalling areas of tarmac etc. More substantial repair required eg. lifting and renewal of flagstones, overlay with new tarmac surfacing course.	66.76
Structural Defects	Serious defects to whole of the footway construction. Full reconstruction of footway required	17.41

As can be seen above, from the 40% of the network surveyed, around 67% is defective and around 17% is seriously defective. It is not possible to undertake all these repairs with current revenue and capital budgets. At present, repair work is undertaken on a worst-first basis. These figures do suggest further investment is needed. However, from a risk point of view the Authority's highway inspection regime is currently robust enough to adequately defend public liability insurance claims and the repudiation rate remains high. In summary, the Authority has the resources in place to maintain an effective highway claims defence but there is little scope for enhancement to the footway network.



HIGHWAY MAINTENANCE BACKLOG

The I-Roads system can also be used to calculate the current backlog of highway repairs i.e. the one-off cost of rectifying all highway defects and bringing the network back to an “all green” condition.

The estimated current carriageway repairs backlog is **£20.7 million**. This is an increase of £900K compared to the figure from 12 months ago which was £19.8 million. This may at first seem high but across an 825km carriageway network the increase is relatively slight. This modest increase has been as a result of the additional highways capital investment in recent years and the use of preventative maintenance treatments which have been funded through this investment. If the Authority was solely reliant on LTP funding then the backlog would be substantially higher and would rapidly increase from year to year.

Detailed data in relation to the calculation of the footpath network maintenance backlog is still being gathered and developed. The early indications are that **the footpath maintenance backlog will be a similar figure to that of carriageways.**

CUSTOMER ENGAGEMENT

In recent years, corporate resident satisfaction surveys have shown that a well maintained highway network is very important to our residents and customer satisfaction in this area has proved to be a challenge. The Highway Asset Management Plan (HAMP) recognises that improvement to the network will always be constrained by available resources and so there is a need to prioritise.

During the last 12 months the Highways Team has been undertaking some further detailed analysis of a postcard survey that was undertaken in 2012. This has assisted greatly in understanding the views of customers and how they believe spending should be prioritised. The results of this survey analysis are not shown in this report but can be viewed if requested.

The intention is to, with Cabinet approval, repeat the postcard survey in 2015. This will determine whether customers believe there has been any improvement in the condition of highways and will allow the Highways team to continue to set maintenance priorities in line with customer needs.



PERFORMANCE

The Authority gathers performance data in relation to the condition of its main classified roads. Independent condition surveys are undertaken and the data is used to calculate a performance indicator figure. The results for recent years are shown in the table below (a lower figure is better). The latest data gathered during the 2012/13 year has just been analysed and performance figures for the last 3 years are shown below.

Performance Indicator	2010/11	2011/12	2012/13
Percentage of A class roads that should be considered for structural maintenance	5%	3.5%	3.83%
Percentage of B and C class roads that should be considered for structural maintenance	8%	5.6%	2.97%

The above figures represent good performance when compared nationally. The most up to date figure for A class roads (3.83%) represents good performance and this is expected to continue. This is likely due to the continued use of lower cost preventative maintenance treatments such as micro-asphalt and surface dressing that have allowed more work to be completed on the ground. This increased level of preventative treatment has been enabled through the continuous additional Council capital funding which this year has resulted in a substantial slow-down in the deterioration of the network. Figures for 13/14 performance will be available at the end of November 2014 and will be reported to the lead cabinet member.

As part of the ongoing partnership between North Tyneside Council and Capita, a suite of key performance indicators has been produced to ensure that the Authority continues to address its statutory duties. These KPIs are detailed below:

- *Percentage of routine safety inspections completed within the required time limits by the Authority's street care officers* – this has consistently achieved 100% over the last 12 months
- *Percentage of hazardous highway defects made safe within 24hours* – this has consistently achieved 100% over the last 12 months.
- *Percentage of non-urgent highway defects completed within 10 working days* – this has averaged at 98 – 99% over the last 12 months, above the expected rate of 96%.

These figures represent good performance from the Partnership with regard to addressing its statutory duties and undertaking repairs in a safe and timely manner, reducing the risk of any harm occurring to users of the highway network.

OTHER INFORMATION OF INTEREST

This section of the report outlines other items of general interest.

SERVICE IMPROVEMENTS

The following are some examples of the type of work that the partnership has undertaken in the last 12 months:

- Continued to invest additional resources in utility reinstatement inspections and quality control leading to better reinstated roads and footways.
- Improvements in productivity of front line operations leading to lower unit costs. This has been achieved through closer working of frontline operatives with Street Care Officers.
- Completed detailed analysis of Highway Postcard Survey (as detailed on page 11)
- Improved ICT with regards to Highway Maintenance and Pavement Management Systems.

The following are some examples of further work we intend to undertake over the next 12 months:

- Improvements to the gully cleansing service
- Looking at more permanent solutions to pothole repairs and emergency call-outs.
- Further improvements to ICT systems, in particular bridge and other infrastructure asset management systems and incorporating into I-Roads.
- Introduction of hand-held data management equipment to frontline operatives to improve efficiencies in working. (Removal of paper tickets with works being submitted electronically to operatives)

The Capita Technical Partnership will look to achieve further efficiency savings throughout the life of the partnership by:

- Better management of the supply chain
- More productive use of plant and labour
- Securing more favourable unit rates for construction work



These efficiency savings are likely to increase the amount of work that can be done on the ground and stretch available resources further.

HIGHWAYS MAINTENANCE EFFICIENCY PROGRAMME

In 2011 the Government launched its Highways Maintenance Efficiency Programme (HMEP). The HMEP is a sector-led initiative which is concerned with maximising efficiency in highway maintenance through development and sharing of best practice. The Authority is continuing to support this initiative and is acting on the associated guidance and recommendations

NORTH EAST HIGHWAYS ALLIANCE

During the last 12 months a new group, the North East Highways Alliance, was formed in line with recommendations made by HMEP. The Alliance brings together the 12 north east authorities and the aim is to work collaboratively in order to share best practice and improve efficiency. North Tyneside's Deputy Chief Executive represents the Authority at board level. There are a number of theme groups that report to the Board including the Knowledge Sharing Group. This is supported by a new website called the Knowledge Hub which allows group members to share information. Since its inception, a lot of good work has been undertaken in relation to highway maintenance including the development of common materials specifications and joint procurement initiatives.

HIGHWAY INSPECTION REGIME

Following on from improvements to the Authority's highway inspection regime in 2013, the Highways Team has continued its successful work in supporting the defence of third party insurance claims and the repudiation rate is currently around 98%. Every street in the Borough receives a minimum of routine highway inspections per year at which point any localised necessary safety repairs are actioned.

CONCLUSIONS

The following conclusions can be drawn from this report:

- The highway network is the most valuable asset in the Authority's ownership. The current total value of highway assets is **£1.55 billion**.



- The additional capital investment in highway maintenance is continuing to allow the Authority to make steady improvement across the entire highway network and limit the increase in the repair backlog.
- Generally, the highway network is still deteriorating but at a manageable rate. The additional capital investment made in recent years has significantly slowed this.
- It is recommended that current levels of investment remain the same to ensure that deterioration remains at present levels and do not increase significantly. If investment levels for highways maintenance fall then the condition of highway network will continue to deteriorate and do so at an ever increasing rate. This will occur even when a perfect theoretical long term asset management strategy is applied i.e. full use of whole life planning, best value and preventative maintenance regimes.
- There remains a significant backlog of highway repairs. A one-time large capital cash injection is the only way to quickly deal with the backlog in full. If this cannot be achieved it is recommended that current funding levels are maintained in order to keep the backlog manageable.
- The maintenance backlog will significantly increase if resources reduce.
- The Authority is performing well in relation to the maintenance of classified main roads. This would indicate that the increased use of preventative maintenance treatments and a relatively healthy financial investment in main roads is producing the expected benefits.
- The Authority is performing less well in the maintenance of estate roads and footpaths. This is reflected in the increased maintenance backlog but the situation will improve as we continue to roll out large swathes of micro-asphalting work.
- Continued customer engagement is providing better intelligence on what the public want us to focus our highway maintenance efforts on. These include continuing our improvements of residential and strategic roads and footways, improve the gully cleaning service and address issues of parking on footpaths.
- Bridge maintenance is currently under control and can be managed within existing LTP budgets
- Footway maintenance remains a significant challenge and consideration should be given to increased financial investment. Without this the amount of improvement work will always be limited and maintenance will be largely reactive and localised.