



North Tyneside Council

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**CAPITA**



# Highway Asset Management Plan 2012 to 2017

## Annual Information Report

November 2013



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## **INTRODUCTION**

The Council's Highway Asset Management Plan (HAMP) was formally adopted in December 2011 and was implemented on 1<sup>st</sup> April 2012. This sets out the Council'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 Council 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 discussions about the maintenance of the highway network.

On 1<sup>st</sup> November 2012, all highways and infrastructure services were transferred to Capita, the Council's new technical services partner. Capita will manage all aspects of the service for the next 14 years and will work with the Council's retained client team to improve the business.

## VALUE OF THE HIGHWAY ASSET

Under the Whole of Government Accounting procedure, all councils are required to submit an annual detailed valuation of their highways and infrastructure assets. The valuation returns are submitted in October. 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: £954,713,000

Footways: £202,416,000

Bridges: Estimated £350 million (exact figure not calculated this year due to gaps in data.)

Total value of highway assets as of July 2012: **£1,507,129,000**

## INVESTMENT IN THE HIGHWAY ASSET

The tables on the following page provide a summary of the budgets that have been allocated to highway and infrastructure maintenance over the last 3 years. The focus is on repair budgets and does not include associated highway work such as gully cleansing.

## HIGHWAY MAINTENANCE EXPENDITURE

Workstream	Description of Work	2010/11	2011/12	2012/13	2013/14
Revenue Work	Day to day highway repairs (eg potholes), patching programme, small planned road and footpath improvement schemes, drainage repairs	£855k	£855	£855k	£855k



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Local Transport Plan Capital Work	Annual resurfacing programme, annual surface dressing and micro-asphalting programmes	£593k	£460k	£944k	£1.098m
Other Capital Work	Area Forum Road & Pavement Recovery Programme	£1m	£1m	£1m	£1m
Other Capital Work	Additional Council Capital investment in highway maintenance	-	-	-	£674k
Other Capital Work	Additional DfT budget	-	-	-	£326k

## BRIDGES AND INFRASTRUCTURE MAINTENANCE EXPENDITURE

Workstream	Description of Work	2010/11	2011/12	2012/13	2013/14
Revenue Work	Day to day bridge repairs, emergency work, graffiti, bus partnership, minor planned schemes	£74k	£74k	£74k	£74k
Local Transport Plan Capital Work	Major structural schemes (e.g. bridge replacement / refurbishment)	£608	£683k	579k	£755k

It can be seen that annual revenue budgets have remained static in recent years and currently there is no scope to increase these within the Technical Services Partnership. In addition to this, inflation in the construction sector has been disproportionately high with the cost of construction work estimated to be 40% higher than it was 10 years ago.

## CURRENT MAINTENANCE PRIORITIES

### HIGHWAY MAINTENANCE

The current priority, especially following the impact of the recent severe winters and flooding events, 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. The improvement of estate roads has become increasingly



challenging and has become ever more reliant on additional capital funding that the Council has allocated through the former Area Forum Road & Pavement programme and the additional £674k highway maintenance fund. This funding has also allowed the Council to undertake more footway improvement schemes compared to previous years. However, the approach to footway improvements remains mainly reactive.

## 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.

## SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS

The Scheme Engineer computer system supports the HAMP and has improved the way work can be planned. We were able to develop and finalise our full programme of highway improvement work well before the commencement of the current 2013/14 financial year. This allowed the service to “hit the ground running” in April and take full advantage of the good weather over late spring and the summer period. At the time of this report publication, the majority of the programme has been completed. This included some difficult locations such as Billy Mill Lane/New York Road roundabout, Rake Lane and Albion Road. However, these schemes were well co-ordinated and feedback from customers has been positive. In order to achieve better value for money a range of alternative construction products have been rolled out including micro-asphalt thin road surfacing and the use of surface dressing treatments on our road network. By the end of this financial year we will have completed the following works:

- 59,435m<sup>2</sup> (4.6 miles) of surface dressing
- 140,443m<sup>2</sup> (10.8 miles) of micro-asphalt
- 77,799m<sup>2</sup> (4.8 miles) of full resurfacing
- 120 substantial patching sites
- 129 footway improvement schemes
- Numerous minor highway drainage improvement schemes which will include replacement of rodding eyes, replacement of gullies, jetting of drainage systems and reactive gully cleansing. (674 schemes to date)

## CONDITION OF THE HIGHWAY ASSET

The Council's Scheme Engineer System has the ability to make accurate cost forecasts based on any number of time and budget scenarios. The system is based on whole life 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.

All roads in North Tyneside are given a red/amber/green rating. Roads which are shown green have minor defects and require no structural maintenance. Roads which are shown amber are in a condition where maintenance is needed to be considered and these roads can be "saved" by undertaking preventative maintenance such as micro asphalt or surface dressing treatments. The roads shown in red are structurally defective and require more substantial maintenance. They are past the point where preventative maintenance would be of any benefit.

In 2012 an exercise was undertaken to model the highway network using budgets at the time and applying an ideal whole life maintenance regime. The results were published in last year's annual 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 investment levels remained constant, with many of the roads turning to amber and red. The results of this work were presented to Cabinet last year which resulted in an increase in investment for highway maintenance.

It should be noted that the above exercise did not show footways. We are currently gathering detailed condition data for the whole of the adopted footway network and in due course we will be able to produce similar condition forecasting maps.

The Scheme Engineer system has also calculated the current backlog of highway repairs i.e. the one-off cost of rectifying all highway defects and bringing the network back into a serviceable condition.

Last year, the estimated carriageway repairs backlog was £19.2 million. The current estimated backlog has recently been calculated at **£19.8 million**, an increase of £600k. This is in fact a very modest increase on previous years which have shown substantial increases year on year. The modest increase has been as a result of the



last year's increase in investment in highways maintenance and increased use of preventative maintenance treatments which we have been able to fund through this investment. Without the additional investment, the backlog would have grown by several million pounds. It is anticipated that if current funding levels are maintained, the backlog will begin to stabilise then reduce as more and more amber roads are protected with less need for day to day repairs. The key to minimising the backlog of carriageway repairs is therefore to maintain the same level of investment in carriageway repairs as in 2013/14 and it is recommended that this be given serious consideration.

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

## **CUSTOMER ENGAGEMENT**

The annual Council Resident Survey has, in recent years, indicated a general dissatisfaction in the condition of roads and pavements. In order to better understand this, the HAMP makes a commitment to fully engage with customers. The purpose of this is to determine what is important to people, what their priorities are with regard to highways and infrastructure maintenance and to look at the resident satisfaction issue in more detail. In summary, we know that many customers are not satisfied but need to determine the reasons for this so that services can be aligned to reflect their needs.

In June 2012, a highway maintenance survey was undertaken whereby a postcard questionnaire was distributed to every household in the Borough through the Council's Residents magazine. The survey asked some simple questions about what was most important to residents and where they would most like to see resources prioritised. Importantly, it also asked residents whether they had seen any recent improvement in any aspects of the highway network.

There was a very positive response to the survey with around 8,000 questionnaires being returned. At the time of publishing this report work is being undertaken by our partner, Capita, to undertake a detailed analysis of all the questionnaires that have been returned. It is anticipated that the outcome of this work will provide some useful indications as to where the Council might want to prioritise its highway budgets. It will also provide a means to look for possible differences in priorities amongst

different customer groups: whether older age groups, for example, might see footway repairs as being a higher priority than road repairs.

## PERFORMANCE

The Council 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 data for the current 2013/14 year has just been collected and the results will be available in the early part of 2014.

Performance Indicator	2009/10	2010/11	2011/12	2012/13
Percentage of A class roads that should be considered for structural maintenance	4%	5%	3.5%	3.83%
Percentage of B and C class roads that should be considered for structural maintenance	5%	8%	5.6%	2.97%

The above figures represent good performance when compared nationally. The latest figure for A class roads (3.83%) represents excellent performance following recent severe weather events such as flooding and extreme cold winters. This is likely to be due to the recent introduction 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 type of preventative treatment has been provided through the increase in recent years of capital funding from the Council which has produced a substantial slowdown in the deterioration of the network.

## OTHER INFORMATION OF INTEREST

This section of the report outlines items of general interest.



## SERVICE IMPROVEMENTS

The following are some examples of the type of work that the partnership has undertaken since November 2012:

- Reviewed the Council's highway inspection regime with a view to making efficiency savings of £50k (see detailed explanation on page 11)
- Provided significant extra investment in utility reinstatement inspections and quality control leading to properly reinstated roads and footways.
- Improvements in productivity of front line operations leading to lower unit costs. This has been achieved through closer working between frontline repair operatives and the inspection team. With the new inspection regime enabling all Street Care Officers to work in the same area, this has ensured that all frontline operatives are also working in the same area. This has reduced travelling costs and increased productivity.

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
- Improvements to ICT systems, in particular bridge and other structure asset management systems
- Further integration with the front line operational workforce
- Introduction of handheld data devices to frontline operatives to improve efficiencies in working. (Removal of paper job tickets with works being submitted electronically to operatives whilst they are on the move)

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

- Better management of 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.

A significant area of work has been the publication in April 2012 of the HMEP's Pothole Review (titled Prevention and a Better Cure). This report was compiled by experts from the highway maintenance industry and it sets out a number of recommendations in relation to dealing with potholes. It is encouraging to note that the Technical Partnership has continued to utilise many of the recommendations made in the report (e.g. a move towards preventative maintenance and development of customer engagement plans to help set priorities). We are currently working through the report with a view to meeting all recommendations that have been made. To date we have put into place a number of processes and procedures to meet the following recommendations from the report:

- Recommendation 2 – Public Opinion Surveys
- Recommendation 5 – Commitment of Highway Maintenance Budgets
- Recommendation 6 – Prevention is Better than Cure
- Recommendation 8 – Guidance on Materials
- Recommendation 11 – Inspection and Training
- Recommendation 14 –Quality of Repairs and Reinstatements
- Recommendation 15 – Co-ordination Street works
- Recommendation 17 – Research & Innovation

## SKID RESISTANCE POLICY

The HAMP made a commitment to develop a formal skid resistance policy, i.e. a system of monitoring and maintaining sufficient grip on the main road network. The policy was approved by Cabinet in May 2012. Since then, skid resistance levels on

the highway network are being routinely monitored through the use of mechanical surveys which annually identify any areas on the highway network which may be below stipulated grip levels. This policy is constantly being reviewed to ensure that it meets guidelines stipulated in the Design Manual for Roads and Bridges.

In summary, the Council now has a means of proactively managing skid resistance of the highway network which will assist with road safety and advance works planning.

## HIGHWAY INSPECTION REGIME

Early in 2013, a full review of the highway inspection regime policy was undertaken as it was viewed that the policy at that time was not sustainable in the challenging economic climate that we are currently operating in. The rationale with regard to the changes to the policy has evolved around the following areas:

- A review of the road hierarchy to ensure it is suitable for all the highway users.
- Ensure that the Council's repudiation of Public Liability claims continues at its current level of 97%.
- Ensure that a new inspection regime meets all legal responsibilities and addresses workloads.
- Closer working between Street Care Officers and frontline operatives to ensure a more joined up and efficient service.
- An inspection process which will ensure that we continue to meet all guidelines laid down in the "Code of Practice for Highway Maintenance" whilst still providing efficiencies to the service.

The conclusion of this review resulted in a reduction of Street Care Officers from 4 to 3 and the integration of the Street Care Inspection Team into zonal working rather than separate area working. This allows for closer working between Street Care Officers and frontline operatives and demonstrates a more efficient way of working through a reduction in travelling time for operatives as they will be undertaking works just after the inspection has taken place and all crews will be in one zone. This has also increased public perception that repairs and inspections are being carried out robustly.

The new inspection regime commenced on the 1<sup>st</sup> April 2013.

## CONCLUSIONS

The following conclusions can be drawn from this report:

- The highway network is the most valuable asset in the Council's ownership. The current total value of highway assets is **£1.5 billion**. Further work is required to obtain more robust bridge valuation data.
- The additional capital investment in highway maintenance has allowed the Council to make some good highway improvements, particularly in housing estates.
- The condition of the highway network is generally deteriorating, but the additional capital investment in recent years has significantly slowed this.
- It is recommended that 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.
- Additional funding in the last 12 months has allowed us arrest the decline in highway condition; however, 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 are reduced.
- The Council 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 high financial investment in main roads is producing the expected benefits.
- The Council is performing less well in the maintenance of estate roads and footpaths.
- The recent additional capital funding and increased use of inexpensive preventative maintenance treatments has meant that noticeable highway improvements are being made and this is starting to be noticed by the public. This year we have received many positive comments from customers about the extent of road resurfacing in the borough. This anecdotal evidence is a good indicator that customer satisfaction is improving.