



Asset Management Case Study

Local Authority	Newcastle City Council
Region	North East
Sector	Highways
Theme	Highways Asset Management
Benefits	Use the asset management approach to help reduce both costs and environmental impact in relation to two key areas; Traffic Signals and 'Bus Corridors (Super Routes)'.
Publication Date	November 2010

Key Lessons

- Senior buy-in to the Asset Management approach has been essential to the successful roll-out of the programmes

Summary

Following the development and roll-out of its Highways Asset Management Plan in 2006, Newcastle City Council recognised that it could use the asset management approach to help reduce both costs and environmental impact in relation to two key areas; Traffic Signals and 'Bus Corridors (Super Routes)'.

Background

In 2004 Newcastle City Council realised the benefits a Highways Asset Management Plan (HAMP) would bring and so in April 2004 began the development of a HAMP. The plan began with a review of current practice within the authority to determine how current working arrangements fit in to an asset management approach. Results from this review identified a number of areas where significant improvements could be made in order to implement asset management best practice. The HAMP was published in 2006, and Newcastle has used the asset management approach to shape and inform decisions around transportation issues. This was a new idea at the time and so the highways team had to ensure senior buy-in at an early stage. To achieve this they held a number of meetings to explain the HAMP approach, which resulted in them gaining strong support for the project from the top down.

Drivers for Change

Newcastle City Council identified 2 key areas for improvement focused around transportation projects, i.e. Traffic Signals and 'Super Routes'. With regards to Traffic Signals they recognised that efficient management and maintenance of these signals would really help them to achieve their targets to reduce both their costs and environmental impacts. The key driver in respect of the Super Routes was to provide a high quality network of bus services for their customers. A number of the existing routes were identified to be in need of improvements to bring them up to the high Super Route standards and so took the opportunity to develop an improvement programme.

Improvement Action

Newcastle City Council's bid submission to DFT outlined how they would use the funds to develop asset management in Newcastle, concentrating specifically around two transportation projects, ie Traffic Signals and 'Bus Corridors (Super Routes)'. See [www.helg.org/asset management](http://www.helg.org/asset%20management). Reward funding of £400,000 was awarded.

Newcastle recognised that it did not have enough data to successfully manage the assets in the 2 areas identified and so set about developing a programme of asset inventory data collection in respect of Traffic signals and 'Bus corridors / Super Routes'. To achieve this, it recognised that it would need to make a significant investment in terms of people, time and money and so appointed an asset management consultant to help them. The consultant was co-located as a member of the team which set about identifying an asset information strategy, as follows:

- What they already had
- What they needed
- Undertaking a risk analysis of services
- Whole life cost plans
- Forward works plans
- Backlog issues

Using this information as their starting point, they then developed a programme for each area, as outlined below.

Traffic Signals

In relation to the Traffic signals, the key was to improve efficiency and safety in respect of their traffic signal maintenance service through the collection of improved data and information. Previously the information had been paper based which made it very difficult to keep information up to date. Furthermore, Newcastle identified that it needed improved information to enable it to improve the maintenance service.

By improving data, Newcastle would be able to improve efficiency and safety by targeting those traffic signals that were most in need of repair. This in turn would reduce the time taken to attend to faults. Furthermore, Newcastle is looking to utilise low energy components for future maintenance which will lead to a reduction in CO2 emissions, thus contributing to its target to reduce environmental impact.

Newcastle set a target of 3 months to develop a full inventory of traffic signal condition data. To achieve this, it looked at a wide range of technology applications. It decided on a proprietary asset management solution as this would provide longevity by covering a wide range of maintenance issues. Newcastle is also looking to utilise Google maps to display the information they have collected geographically, which will enable it to realise to big cost savings. To date, the technology is all in development and they are looking to roll it out soon.

Newcastle City Council have also set up a 'Traffic Signals Group' to enable it to provide a service to 11 other Local Authorities. The purpose of this group is to enable Newcastle to share learning and best practice; however, there has been some reluctance among the other authorities to buy into the collection of data.

Super Routes

With regards to the 'Super Routes', the aim of this programme of improvements is to provide a high quality network of bus services to encourage and increase the number of people using public transport. The team identified a number of existing routes that would benefit from improvements which would bring them up to standard, and so set about collecting transport inventory data. To achieve this they undertook both driven and walked inspections of the routes to enable assessment. Information collected included the physical condition of bus stops (e.g. ease of use, transport information availability, frequency of usage - busy / quiet, waiting restrictions, etc), route information, such as traffic calming measures in place, etc.

This has enabled Newcastle to develop and put a 3 year programme in place to help it develop a more accessible Super Route bus transport system. Newcastle is trying to develop an integrated approach with the HAMP and the Local Transport Plan (LTP). There are currently links in place, but the programme isn't fully integrated at this stage.

The programme is now in its third year and Newcastle has spent approximately £2.3 million. Unfortunately the programme has not been as successful as they had hoped, and as a next step they are gathering the lessons they have learnt to enable them to improve for the future. This will focus more attention around the importance of collaborative working.

Barriers

The main barrier Newcastle faced is a lack of engagement from other local authorities. Their work with the 'Traffic Signals Group' has led them to the realisation that they can have some influence but ultimately no real control over the input of other local authorities.

Outcomes

With regards to the regional champion role, Newcastle is very keen to share the best practice information it has developed. To this end, it has undertaken a number of activities;

- Formal presentations to other authorities, including Cork, Dublin and also Detroit
- Presentations around the benefits of Asset Management on cost and service delivery
- Take an active part in the North East Technical Advisors Group
- Part of the Tyne & Wear LTP Group
- Arranged a regional conference with Durham County Council to take place in October 2010

Newcastle City Council have been recognised by CIPFA for their good Asset Management practice

As part of the next stage for the programmes, Newcastle has undertaken, or is looking to undertake the following activities:

- Commissioned a full survey of highway assets
- Developed a 'shopping list' for the next stage of works
- Developing the database / GIS mapping systems
- Drainage – this is a key area identified for improvement and Newcastle is working with a local drainage company to understand what they are working with / toward
- Development of a fully comprehensive Transport Asset Management Plan
- Calculation of national indicators
- Undertake a pilot study looking at deterioration modelling, ie prediction of future condition

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