



## Asset Management Case Study

Local Authority	Nottinghamshire County Council
Region	East Midlands
Sector	Highways
Theme	Highways Asset Management
Benefits	To drive development of the Highway Asset Management System and Data Integration; enhance value for money in the collection of Condition Data; improved management of the Highway Drainage Asset
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## Key lessons

- There is a need for dedicated IT support to help develop and maintain the highway asset management system.
- As data becomes more integrated the complexity of managing data increases in terms of administration, setup and reporting.
- Where possible use GIS to represent data, this was particularly useful when changing from a paper based inspection system to electronic. Thematically mapping different data sets enabled large volumes of data to be viewed, analysed and amended quickly and consistently.
- Ensure that the estimates of the time and resource required in delivering asset management and flood risk management is realistic and achievable.
- Persuasive /negotiating skills are fundamental when rolling out new developments and replacing existing systems. The central Assets and Programmes team spend a lot of time with area staff to ensure they have the required understanding/skills and work co-operatively.
- Development of user groups within the Authority for different functions has enabled users to share experience, discuss developments and user issues etc.

## Summary

**Nottinghamshire County Council is a Local Highway Authority based in the East Midlands region, and is responsible for the maintenance of over 4,700km of local roads. Nottinghamshire County Council has adopted asset management principles and practices in the management of highway assets, enabling them to make innovative use of data in making investment and maintenance decisions. The County Council has adopted a fully integrated system for the management of its highway assets. To support this integrated system Nottinghamshire has developed a central team responsible for the management of its implementation and development.**

## Background

Nottinghamshire had already made a significant investment in the development of its Highway Asset Management approach in terms of money and also staff time and resource. However, it recognised that there was still a lot of work to be undertaken to develop the programme to its full potential, and furthermore to address its targets of delivering excellent public services and also getting customers (the public) more involved in processes for managing the highway.

## Drivers for Change

- Need for consistency and common practice across different operational areas and teams - Nottinghamshire area is made up of 7 districts, 4 of which are directly maintained and the other 3 are currently maintained by district/borough councils as Manage and Operate Partners.
- Transparency in the way Nottinghamshire deals with data and the decision making process
- Understanding the business processes and looking at who does what and where (this has helped the authority look at how they can reduce repeat calls)
- Improving the condition and management of the asset
- Improve efficiency of the service provided
- As a result of legislation and reports - the Pitt Review and the Flood and Water Management Act states that County Councils must take the lead in flood risk management

## Improvement Action

Nottinghamshire County Council's 'Element 2' submission to DFT outlines how they would use the funds to further develop their existing asset management capabilities and initiatives. See [www.helg.org/assetmanagement](http://www.helg.org/assetmanagement). Reward funding of £400,000 was awarded.

The funding secured has enabled development in three primary areas: Highway asset management system and data Integration, condition data, and management of Highway Drainage Asset.

### Highway Asset Management System and Data Integration

The County Council Highway Service Best Value Review in 2002/03 identified the need for the authority to purchase a Highway Asset Management System. At the time the County Council was criticised for not having an Asset Management System and also passing customers on between offices. A proprietary system was selected as the preferred software solution in 2006. Although a lot of work had already been done to populate the system, the receipt of Element 2 funding has enabled the Highways Team to extend this work so that the modules implemented (or in the process of implementation) are as follows:

- Customer Relations Management
- New Roads and Street Works
- Bridge Management System
- Street Lighting Management System
- Pavement Management System
- Inventory
- Inspections (including mobile working)
- Works ordering
- Arbicultural

Key progress has been made in the following areas:

#### Customer Relations Management

- Mail logging, where letters are treated as enquiries
- Integration with Corporate CRM with new interface for use by Customer Service Centre Advisors
- The web interface is about to go live for self service logging of defects
- Improved service statistics
- Link to maintenance decision making
- Simplified insurance interface

Maintenance of inventory data and condition in the following areas

- Lighting
- Structures (Bridges, culverts, retaining walls)
- Interactive Signs
- Footways
- Safety Fence
- Verges
- Trees
- Retaining Walls
- Signs
- Kerbing
- Video
- Drainage Records/Drawings

Other areas of that have seen progress include the following

- Pavement Management System
- Arboriculture
- Management Reports/Performance Indicators

#### Developments in Condition Data

The County Council has continued to collect condition data as required for National Indicators. However, to maximise value for money on the cost of survey data, a lot of work has been undertaken to develop outputs in both Map and Spreadsheet format that enables the area offices to produce work programmes, allocate budgets on a needs basis and target funding to improve condition of different assets as defined in County Council business plans.

#### Management of Highway Drainage Asset

Like many counties across the UK, Nottinghamshire has had to deal with the effects of flooding - particularly prevalent in the summer of 2007 where a number of areas suffered severe flooding of both infrastructure and property. This led the Authority to explore how best to manage the drainage asset and as a result of this appointed a Drainage Manager to oversee this area of work.

## Barriers

Nottinghamshire has faced a few barriers in the implementation of its Highway Asset Management System developments in condition data and in its management of the drainage asset, including:

- The time required to implement modules due to staff resource.
- Persuading staff to change processes and practices.
- IT issues, such as multiple editing of map data, ability for different groups of users to have customisable map views (multiple geosets) and the general IT infrastructure.
- Complications with integration to keep the user interface simple.
- Identifying highway drains in the overall surface water drainage system and determining ownership of non public surface water sewers and culverted watercourses.

## Outcomes

The Highways team have had a lot of success in driving the highways asset management programme forward, with many tangible results. The work they have undertaken on data integration has helped them to avoid duplication of work, so for example data held on 'streets' such as hierarchy, area and electoral divisions can be cascaded down onto asset information without having to maintain it on both levels. This has led to efficiency savings in terms of both time and money.

Nottinghamshire has been proactive in sharing the learning they have from this work. It has hosted a number of visits from other Local Authorities including Lincolnshire, Nottingham City, Derbyshire and Leicestershire. They have also had telephone conversations with a variety of other Local Authorities further afield including Telford and Wrekin, Hampshire, Staffordshire etc. In addition to this, they have undertaken a number of other activities, including

- Demonstrations for the Environment Agency and Severn Trent Water on the development of their Highway Asset Management system.
- Hosted a visit from Hong Kong Engineers.
- Attended Customer Advisory Panels with their software supplier in areas including the National Street Gazetteer and mobile working.
- The County Council is a member of the Midlands Service Improvement Group (MSIG) and a highways representative was involved with the MSIG asset valuation work that has now been developed by the Highways Asset management Financial Information Group and CIPFA.

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