



## Asset Management Case Study

Local Authority	Gloucestershire, Wiltshire and Swindon Councils
Region	South West
Sector	Highways
Theme	Highways Asset Management
Benefits	More detailed and improved data inventories means the Councils can extend their asset management approach by making data driven decisions about highway network maintenance.
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## Key Lessons

- The detail required for the database took a lot longer to capture than estimated.
- Together with its technology provider, Gloucestershire CC has developed a bespoke Drainage Asset Management Database that may be of use for other local authorities.
- The learning from shared best practice across the three authorities has led to huge benefits. For example, with regards to drainage survey work, Gloucestershire used Wiltshire's system design and site methods to develop their system. They also used the same contractor to do a lot of the survey work.
- There have been opportunities for sharing learning and best practice with other Local Authorities across the country.

## Summary

**Gloucestershire County Council made a joint bid with Wiltshire County Council and Swindon Borough Council for Element 2 Transport Asset Management funding based on the innovative use of video technology. The joint bid would enable each authority to capitalise on the benefits that an asset management approach can bring, and furthermore, would enable them all to benefit from the economies of scale and get best value. In addition, the three partners were all keen to pursue the procurement of further drainage survey work and make best use of one another's experience.**

## **Background**

Gloucestershire County Council (GCC) produced its first Transport Asset Management Plan (TAMP) in 2005. A gap analysis identified some areas where knowledge of the asset inventory needed to be improved and the use of video survey was identified as the most cost effective way of tackling the information gap. Video surveys offer several advantages over traditional walked surveys – capture of information about a wide range of assets in a single pass with significant time savings and retention of accessible historical records on the condition of the highway asset at specific points in time. Furthermore, digital video surveying transfers a great deal of the inspection and inventory tasks from the field to the office, with additional benefits in terms of efficiency, quality control and health and safety. It also provides a visual record of the network that can be used in a range of other operational and engineering functions.

GCC engaged with neighbouring authorities at Wiltshire County Council and Swindon Borough Council to determine whether a joint approach to the use of video technology could be of benefit. This collaboration was brought about by the floods that hit the South West region so hard in 2007. All three authorities showed a strong willingness to work together. Like Gloucestershire, Wiltshire developed its initial TAMP in 2005; Swindon following in 2007.

There was a commonality across all three TAMPs that there was a lack of real data on the authorities' highways drainage. The joint approach was seen as a way of mitigating the risks associated with this.

## **Drivers for Change**

Gloucestershire had massive floods in 2007 which caused significant damage and disruption to its roads and highway networks. The 'Pitt Review' published by the Government following these floods made numerous recommendations, one of which suggested Local Authorities should have a better understanding of their drainage assets. Gloucestershire County Council responded to this by prioritising improvements to their drainage network and began work on a £6 million drainage improvement programme to enable it to manage, and possibly mitigate, future flood risks. Gloucestershire mapped out all of its roads prone to flooding and began prioritising these flooding hot spots for drainage improvements. To assist this, Gloucestershire wanted to survey and record all of the drainage assets in these areas, but needed to develop a field based system that would integrate with its existing asset management systems.

Wiltshire and Swindon also recognised the benefits of developing their asset management approach and were also keen to pursue further drainage survey work. Wiltshire had been systematically collecting drainage asset data through a programme which included cleaning, jetting, CCTV surveying, recording the asset and also making any repairs to damaged drainage networks. Swindon had previously carried out some manual surveying of above ground assets, but following the 2007 floods, were also keen to carry out some drainage asset data collection.

## **Improvement Action**

The joint submission to DFT outlines how the authorities would use the funds to undertake projects which will provide them with digitally mapped highway drainage networks using video technology. See [www.helq.org/asset\\_management](http://www.helq.org/asset_management). Reward funding of £800,000 was awarded. The three authorities

agreed how the funding would be split prior to the submission of the Element II bid. They agreed a 40%, 40%, 20% split between Gloucestershire, Wiltshire and Swindon.

For Gloucestershire, this project is providing the county with drainage asset detail consisting of a digitally mapped network, what types and materials are in situ, and overall condition. To capture this information it developed a digital drainage collection system based on the same principals as the Wiltshire HDAM system. A contract for undertaking the site works was tendered in August 2009 and was awarded to a drainage survey company. The method for carrying out the survey work is broadly similar to the Wiltshire successful approach.

On award of the contract the drainage survey company began surveying drainage assets using the new collection mapping system, focusing on 18 x 1km grids across the county. These areas were picked as flooding hotspots identified from the 2007 floods. Mapping of the drainage assets is undertaken using a hand held data capture device containing bespoke software. Using simple probing technology and recording the collected information on the bespoke system allows Gloucestershire County Council to obtain drainage connectivity and system details which when uploaded produce a holistic, mapped, digital drainage system. This work is on track to be completed by January 2011 and it is anticipated that efficiencies made during the year to the process will allow for some further extension of the survey work.

Wiltshire had already done a lot of work on drainage asset mapping using a system it had developed earlier. It has used the Element 2 funding to continue developing additional drainage surveying work.

As well as considering mapping the efficacy of drainage, Swindon has utilised part of its funding to help further development of its TAMP by completing some asset inventory work.

### **Barriers**

Gloucestershire and Wiltshire are keen to continue with further drainage asset survey work, but when the Element 2 funding is depleted it is going to be extremely difficult given the expected reductions to budgets for future years.

### **Outcomes**

The Councils have accelerated asset data collection, and achieved benefits including improved working relationships, better understanding of how to prioritise resources, delivery of better value for money, and the ability to close the knowledge gap about the highway asset. With fuller and better data inventories they can extend the asset management approach to making data driven decisions about highway network maintenance.

There has been a huge amount of learning that has come out of this work, and in line with one of the stipulations of the Element 2 funding, the process of sharing best practice beyond the partnership has already begun. Officers from Wiltshire and Gloucestershire have presented on their learning at a number of conferences across the country. Gloucestershire have also been approached by a number of other Local Authorities interested in gathering best practice advice with regards to the highways asset management works they have undertaken. To facilitate this, they have invited people from other Local Authorities on 'Site visits' to share their best practice information. On the 27<sup>th</sup> April 2010, the three authorities held an "Innovative Use of Data" conference at the Swindon Steam Museum. The event was

free for Local Authorities and over 100 representatives attended from across the country. Guest speakers were made up from successful Element 2 bidders and the drainage survey company were on site to give advice and information. Gloucestershire and Wiltshire gave a joint presentation about their drainage asset data collection work. Gloucestershire and their partner gave a presentation about collecting above ground assets using video surveys and officers from Swindon Borough gave a joint presentation with their on the development of their Transport Asset Management Plan.

Wiltshire and Gloucestershire have also presented at the Southwest Asset Management Improvement Group to share best practice with other Southwest authorities. All three authorities have also collaborated with their private sector partners on published technical articles to ensure their experiences reaches as wide an audience as possible.

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