

# Case Study

## Scottish Water adopts Sigma Seven's field mapping and data management solution, GeoField

*"The speed of turnaround to develop and implement this high quality and low maintenance system was deeply impressive. Sigma Seven proved friendly, trustworthy and approachable throughout."*

Jason Saxon, IT Core Application Team Leader

### The Challenge

The organisation that had previously provided Scottish Water with a solution to show map based data from CD's had reached its end-of-life. Scottish Water also wanted to reduce the administration associated with supplying such data to its mobile workforce whilst providing a solution that offered greater mobile GIS capability for the future. Information on Scottish Water's developing network was in danger of becoming outdated which meant Network Service Operatives (NSOs) did not have access to current map based information when working in the field. With the world's eyes on Scotland during the G8 Summit last summer, it was essential that Scottish Water was able to demonstrate best practice network management should any faults or incidents affect its infrastructure.

### The Sigma Seven Solution

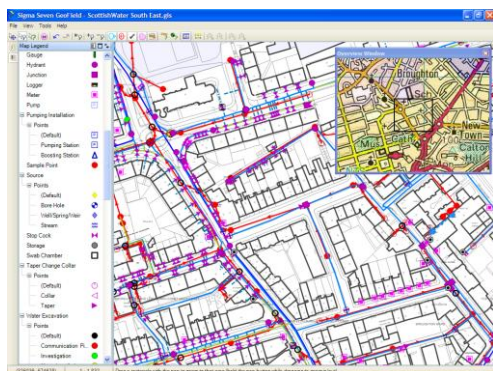
Sigma Seven's field mapping and data management solution, GeoField, provides Scottish Water's mobile workforce with a complete set of mapping, operational and infrastructure data to enable them to perform accurate and effective field work. GeoField is a mobile solution which gives access to critical data at the point of action.

GeoField was seamlessly integrated with Scottish Water's Work and Asset Management System and is fed by its corporate Geographic Information System. GeoField is being used by 300 NSOs, Team Leaders and Asset Maintenance personnel across the whole of Scotland. It is especially helpful to NSOs who utilise the information whilst dealing with customer reported issues, thus allowing them to provide more accurate diagnosis and feedback to the customer and thus resolve any problems far quicker than was previously possible. The system is installed on their laptops and network data is refreshed on-demand by connecting into the Scottish Water LAN, ensuring that maps can be kept in line with Scottish Water's corporate GIS.

Sigma Seven configured GeoField to mirror the front end of the corporate GIS so that users were already familiar with the symbology and terminology. In fact Sigma Seven only needed to provide two half day "Train-the-Trainer" sessions for Scottish Water to roll out to all 300 users.

With up-to-date mapping always to hand, the system also provides a solution for out of hours cover, and is used by NSO team leaders to generate work instructions for NSOs without them having to return to their depot. Team Leaders now carry map based information on their laptop for their entire region, without the need to send vast amounts of data over the network.

The system has proved to be very robust and has required very little in the way of maintenance and support.





## The Benefits to Scottish Water

GeoField facilitates faster and more accurate fault finding and diagnosis as it provides an up-to-date view of all Scottish Water's below ground assets. When a fault or leak is reported, NSOs can see information about pipes, drainage patterns, network boundaries and other asset information that may not be obvious from text based work instructions alone or by simply inspecting the site.

The system is fully configurable, allowing appropriately authorised users to view particular map based information and underlying attributes according to their requirements for a particular job. Layers of map based information, such as water or waste water, can be easily switched on and off enabling clearer views of information most relevant to the work in hand.

GeoField allows fast access to up-to-date information. Previously NSOs were using static map data held on CDs and paper based maps. The paper based maps were unwieldy and NSOs had to return to depots to print them out, while information on the CDs was updated infrequently and was difficult to deploy. If NSOs reported amendments or changes to the network based on their work or findings, it took a long time before the new information was reflected in the system. Users now appreciate that changes they report to Scottish Water's central GIS team are easily and quickly updated on GeoField, and information is never more than a month old.

Scottish Water are now considering extending the use of GeoField to allow NSOs to capture key network map data in the field and return intelligent red-line changes to the corporate GIS, further improving the data management process. There are also immediate plans to utilise wireless communications to collect the status of key valves live in the field using GeoField. This will ensure that the field user is fully aware of the status of the configuration of the network in assessing what actions are required.

More accurate information provides a higher level of network awareness and safety for NSOs working on the network, and a faster resolution of problems for Scottish Water's customers. Scottish Water is currently completing a £1.8 bn investment programme on improving and updating its network so it is particularly important that all workers are kept informed of the location and type of new or repaired assets.

## About Sigma Seven

Sigma Seven provide innovative Spatial Information and Map Management solutions to enable your organisation's field and office staff to work more efficiently, deliver significantly improved customer service and enhance the quality and effectiveness of your corporate data.

Our consultants and product specialists have more than 70 man years experience in the Utility and Network Asset Management industries. We have unrivalled in-depth knowledge and understanding of integrated Work and Asset Management systems and a track record of successful project delivery.

