



## Project Summary

**Organization:**  
Bristol Water

**Solution:**  
Water and Wastewater

**Location:**  
Bristol, U.K.

### Project Objective:

- Implement a custom solution based on Bentley's Exor Information Manager for reporting and managing street works noticing data to meet government requirements, and avoid fines
- Capture and share comprehensive, quality data for street works noticing
- Provide GIS-based information on the Internet for viewing street works in the local area

**Products used:**  
Exor

## Fast Facts

- Bristol Water initially implemented Bentley's Exor Information Manager for street works to help meet TMA requirements.
- The Exor-based executive dashboard provides Bristol Water with greater visibility of its performance and helps to provide 52 required monthly reports to the NJUG.
- Exor's flexibility enabled the easy addition of a web-based GIS solution for viewing street works noticing in the Bristol Water service area.

## ROI

- Achieved a significant reduction in fixed penalty notices
- Saved one day per month in generating monthly NJUG reports

# Bristol Water Improves Business Performance with Enterprise Management of Street Works Noticing

Bentley Exor Technology Helps Provide a Greater View of Street Works Performance, a Significant Reduction in Fines, While also Improving Customer Service

## Traffic Management Act Increases Street Works Challenges for Utilities

Bristol Water, the water supply company responsible for providing water to 1.2 million consumers in and around the Bristol area, needed a way to help it monitor its performance and meet increasing challenges presented by the United Kingdom's Traffic Management Act. With Bentley's help, Bristol developed an Exor Information Manager-based solution that provides high-level aggregate executive information, monthly performance reports, and manages noticing and street works activities. This enabled a significant reduction in the administrative burden of reporting, a reduction in street works fines, provided greater visibility of performance, and allowed them to easily meet legislation requirements.

The Traffic Management Act (TMA) required utilities in the U.K. to register additional street works, and also changed notices to be based on the length of occupation of the road or highway, thus increasing not only the number of notices, but the complexity of noticing requirements. Of equal concern to Bristol Water and other utilities are the potential fines and penalties the TMA introduced. With fixed penalty notices, street works promoters can be fined up to GBP 120 for each breach of noticing requirements. Given that Bristol Water produces over 70,000 notices per year, this greatly increased their exposure to financial risk. To overcome these challenges Bristol Water needed a solution that would help improve day-to-day noticing management and provide accurate reporting for internal and external stakeholders, while being flexible enough to accommodate future needs.

## Capturing and Accessing Quality Data for Reporting

In early 2008, when the TMA came into effect, Bristol Water's collection of street works information was labor intensive and often incomplete, with much of the requirements generated manually. Street works data was stored in numerous different systems, which made it difficult to extract. As well as being incomplete, data was often out of date, which made accurate reporting a challenge. Lastly, Bristol needed a way to help evaluate business performance as well. Bristol Water's Street

Works and Partnership Manager Simon Bennett explained: "With improved data quality, and better reporting we can hopefully improve our performance."



*Noticing management showing potential fixed penalty notices and monthly notices.*

## Implementing Exor for Enterprise Management of Street Works Noticing

Working with Bentley Systems, Bristol Water leveraged the flexibility of Exor Information Manager to streamline the process. Bennett explained: "We sat down with Bentley's Exor team and discussed how we could get full visibility of our assets on the road network and to produce reporting criteria set out by NJUG (the National Joint Utilities Group). It was a surprisingly simple process because of the functionality offered by Exor Information Manager."

Now, real-time data about notices is captured, updated, and then published internally. "The solution implemented is a live system, continually updating as notices are sent and information comes back. And it's web-based so it's all real-time information. So within seconds the Local Authority knows we're on site," said Bennett. From this accurate up-to-date data, Bristol Water is able to easily access high-level executive information that provides a common operating picture, as well as generate 52 monthly performance reports to NJUG on core areas of competency and interest.

*“The new reports available through Exor Information Manager enable us to share information far more effectively and highlight problems far more quickly, enabling us and our contractors to act on potential issues before they become liabilities.”*

— Simon Bennett,  
Bristol Water’s Street Works  
and Partnership Manager

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Information is also categorized so it can be analyzed according to Bristol Water’s business units, or by local authority, for better reporting and, ultimately, improved performance. “What we are trying to do for street works is self-regulation. We need to regulate ourselves with street works and this reporting facility is allowing us to look at our performance and improve the way we do things,” said Bennett.

### **Web-based GIS Improves Customer Satisfaction**

In 2011 Bristol Water added further improvements to the solution, including the introduction of a customer facing web-based GIS solution for viewing street works noticing throughout the Bristol Water operating area. This would allow Bristol Water’s customer service team to provide better information to customers, direct enquiries to the correct business unit, and provide full visibility for the general public via Bristol’s web page. Bennett noted: “The site went live in 2011 and we soon recorded an increase in customer viewing of the site. As well as complying with regulatory demands, Bristol Water is seeing the benefit of the GIS web page, which is keeping customers better informed of our works going on in their area.”

### **Reducing Potential Fines and Greater Performance Visibility**

The Exor solution has provided Bristol Water with numerous benefits including targeted street works training, greater visibility of performance and a reduction in fixed penalty notices and section 74 fines. With improved reporting and an “executive dashboard” Bristol Water also has greater visibility of performance of both their business and the effectiveness of their various contractors. Bennett explained: “The new reports available through Exor Information Manager enable us to share information far more effectively and highlight problems far more quickly, enabling us and our contractors to act on potential issues before they become liabilities.” Bristol Water has also improved relationships with local authorities, by providing them with reports and information that they are unable to obtain from their own in-house systems.

Bennett concluded, “Right from the start, Bentley’s Exor team has been highly supportive and responsive to our needs. They understand that the maintenance of our infrastructure is not just a series of one-off events but a continual process involving numerous parties at Bristol Water, including several third-party contractors. The solution they have provided reflects this, providing us not only with full visibility of the current state of our infrastructure but the tools to meet all our partner requirements as well as those set by government.”



*Web-based map showing street works noticing in the Bristol Water service area.*