



Project Summary

Organization

Dŵr Cymru Welsh Water

Solution

Water and Wastewater

Location

Cardiff, Wales

Project Objectives

- Effective management of engineering documents associated with the transfer of private sewers
- Establishment of a central library of calibrated hydraulic models managed in ProjectWise
- Provide better customer service, improve business efficiency, reinvest savings

Products Used for Spatial Document management

- ProjectWise
- ProjectWise Geospatial Management

Fast Facts

- Welsh Water serves more than 1.3 million customers and produces 900 million litres of water per day
- Welsh Water operates 27,000 kilometers of water mains and 36,000 kilometers of sewers
- The company is deploying ProjectWise to help it import and manage 22,000 additional documents

Dŵr Cymru Welsh Water Deploys Bentley's ProjectWise to Improve Team Collaboration

Software Helps Manage the Information from a 36,000-Kilometer Sewer Network

Handles Water System Information and Reduces Costs

Dŵr Cymru Welsh Water (Welsh Water), a regulated company providing water supply and sewerage services to over 1.3 million households and businesses in Wales and parts of England, is deploying Bentley's ProjectWise project team collaboration and work-sharing platform. Its goals for this new deployment are to enhance the ability to manage all of Welsh Water's engineering content and to reduce associated costs.

Welsh Water operates 68 source reservoirs and 68 water treatment works, and supplies an average of 823 million litres of water every day through a network of 27,100 kilometers of water mains that includes 532 pumping stations and 654 service reservoirs. It also collects wastewater (including surface water) through a network of 36,000 kilometers of sewers that incorporates 1,700 sewage-pumping stations and 3,300 combined sewer overflows. The wastewater is then treated at 835 wastewater treatment works located throughout the company's operational areas.

A Secure, Managed Environment for Engineering Content

In its continuing drive to further enhance its customer service and business efficiency, Welsh Water was determined to better manage its engineering content, including all of its documentation, and data sharing. To help achieve this, Welsh Water is deploying ProjectWise to create a secure,

managed environment in which its engineering documents can be stored. As part of the deployment, Bentley and Logica (one of Welsh Water's IT partners) have developed and implemented the documentation infrastructure and have trained staff to use ProjectWise. Kelvin Davies, GIS applications manager, Welsh Water, explains, "Implementing ProjectWise greatly assists the business to efficiently manage the large volume of engineering related documents required by various disciplines to update and upgrade spatial data."

Taking on 22,000 Additional Drawings

The immediate implementation of ProjectWise is being driven by new regulations in England and Wales. The Department for Environment Food and Rural Affairs (Defra) and the Welsh government have determined that private sewers and lateral drains become the responsibility of the water companies. As a result, Welsh Water has taken over responsibility of an additional 17,000 kilometers of private sewers and drains in October 2011. Dave Collins, asset capability manager, Welsh Water, comments, "We have around 17,000 engineering documents, mostly in legacy formats, which will need to be geo-referenced, managed, digitized, and added to the existing geospatial information system (GIS) data." An additional 5,000 Section 104 sewer adoption agreements, all of which have as-laid drawings of sewers, will also be added to the GIS. Collins points out that, "With the help of ProjectWise, Welsh Water will be able to access this engineering



ProjectWise: create and entrust critical AECO content

"With the help of ProjectWise, Welsh Water will be able to access this engineering information, including the additional documents, through a map-based interface, enhancing our ability to efficiently and effectively manage this data."

Dave Collins, Asset Capability Manager, Welsh Water

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Improved Management of Hydraulic Models

In recent years, Welsh Water has invested in creating calibrated hydraulic models of large sections of its potable water and wastewater networks. This enables Welsh Water designers to work through various scenarios such as testing the effects of adding new properties or developments to the existing infrastructure. Enhanced management of their hydraulic models will provide efficiency improvements to Welsh Water. Version control of these models has been a challenge for Welsh Water and the implementation of ProjectWise will help the business to manage centralized workflows to keep these models up to date.

Getting More from ProjectWise

Moving forward there are many ways for Welsh Water to benefit from its use of ProjectWise. In addition to the engineering documents and sewer adoption agreements that are part of the private sewer transfer, Welsh Water also receives a huge amount of as-constructed documentation. All of this engineering-related content needs to be brought into the document infrastructure and the GIS records, subsequently, will need to be updated. In addition, Welsh Water has serviceability measures that it has to maintain throughout the year, including water quality, customer service, and levels of performance. Welsh Water uses its GIS to map failure data and investigative data in relation to serviceability. ProjectWise will also assist with the management of documentation in this area.

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