

Yorkshire Water Asset Management Using Aerial Imagery in GIS



Yorkshire Water is using high resolution aerial photography to help manage its water network and assets over an area of nearly 15,000 square kilometres. The company has signed a new three year contract with Bluesky, building on the success of a previous three year agreement with the aerial mapping company. The aerial photography is accessible using Yorkshire Water's intranet and desktop geographical information system (GIS), to around 3,000 individual users. Primary uses include Asset Data Mapping, Land Management, Grounds Maintenance, Control Room Operations and Conveyancing.

The Bluesky aerial map data sits alongside MasterMap data from Ordnance Survey, as well as Yorkshire Water's own customised map layers. A primary application of the imagery is maintenance of the company's underground asset network mapping. With

hundreds of changes and additions received from partners and field teams every week, the aerial photography provides additional real world details – including pavement positions, building corners and even manhole covers – that are not available from other sources.

Imagery Details Connect with Data Layers

The Bluesky aerial photography is especially useful when digitising the underground network as the detail within the imagery allows Yorkshire Water to accurately identify and position changes and additions with data that is compatible with data layers and third party products. In addition, Bluesky's planned update programme and proposed image resolution suits the exacting needs of our business, as well as our budget, providing us with very up to date imagery in a suitable format and at the right price.

In areas such as Land Management and Ground Maintenance, the aerial data helps identify land owned and maintained by Yorkshire Water. Physical details such as hedges, trees and paths, which are all clearly visible within the imagery, help to manage activities such as hedge trimming, grass cutting and path maintenance. The aerial photography is also used by Control Room staff for active incident control, by the Safe-Move team who conduct drainage and water searches for conveyancing, and even for billing and addressing queries.

Yorkshire Water is also benefiting from Bluesky Lidar data. Commissioned by Mott MacDonald Bentley, the 4 points per metre (ppm) data is being used to create accurate models of the terrain and ground features in relation to the underground sewer network. These models will help MMB and Yorkshire Water assess predicted flooding, understand the potential impact of flooding and replicate reported flood events in order to develop holistic solutions.