Severn Trent Water Enlists Earth-i to Identify Water Leaks using Data Analytics

As part of its ongoing strategy to use new technologies to help identify and fix water leaks, Severn Trent has recently completed a successful trial with Earth-i, a New Space Pioneer specialising in data analytics and insights.

Earth-i conducted analysis on imagery captured by British built satellites orbiting at 650km above the Earth. Images were taken of land across Severn Trent's supply area which stretches from the Bristol Channel to the Humber all the way to mid-Wales and the East Midlands, an area of approximately 20,000 km^2.

Earth-i processed and analysed the 80cm very high-resolution imagery using a technique known as Normalised Difference Vegetation Index (NDVI) analysis, cross-referencing against the location of the water pipelines. The first identifying factor during the dry summer was where grass and vegetation was unusually vigorous or healthy in contrast to the prevailing conditions in the area.

This is the first time that Severn Trent has commissioned the use of imagery analysis with very high-resolution optical satellites to help identify leaks in a range of circumstances, including leaks that might be hidden far underground or in more remote areas.

Water companies are now using ever more innovative methods to reduce the amount of water lost through pipe leaks. Earth-i's data analytics provides insights that help water companies achieve their leak reduction targets.

Paul Majmader, Commercial Director at Earth-i, said, "Working closely on this trial with Severn Trent has produced excellent results. There has been significant interest across the water industry where we are actively engaging in numerous projects to help other companies quickly detect leaks in the pipeline network. These projects benefit not only the water companies but all of us as water consumers. It's a great demonstration of the sort of everyday challenges that imagery from space can help tackle."