



## Yorkshire Water starts to deploy 34,000 PermaNET+ devices

becoming one of the world's largest acoustic logger networks

**“PermaNET+ gives us a much greater understanding and visibility of what is happening in some of the areas most prone to leaks. By installing these devices we will potentially help our Leakage Technicians save millions of litres of water”**

**Martyn Hattersley**  
Head of Leakage Operations, Yorkshire Water

### The Challenge

Across Yorkshire over 1 billion litres of water is delivered to homes and businesses every day through 31,000km of mains network pipes. Managing such an extensive network and actively reducing non-revenue water (NRW) is a challenge.

After the initial installation 12 months ago of 5,000 units, following successful results, Yorkshire Water has teamed with HWM to install an additional 34,000 units, covering approximately 20% of their distribution network. This brings the total number of units deployed up to 39,000, making this one of the largest acoustic monitoring networks in the world.

### The Solution

When a leak occurs near a **PermaNET+**, the leak noise sensor detects the soundwaves created by the escaping water. This triggers the device to go into 'alarm', alerting the user about the presence of a leak whilst at the same time recording the leak noise sound file. Once a leak has been identified, secondary validation methods can be used to remove 'false positives' and also to localise the leak position, making it easier to find.



YorkshireWater

**Customer**

Yorkshire Water

**Industry**



**CLEAN WATER**

**Product**

PermaNET+



**Application**

- Leak Detection
- Fixed Network

## The Result

During the initial trial of 5,000 units, the devices were installed in the pipe network in West Yorkshire, helping to identify more leaks than usual within the first month of deployment.

Following that success, Yorkshire Water will now proceed to install 34,000 more of the devices by September 2019, covering 20% of its water distribution areas. This will bring the total amount of loggers installed on their network to 39,000.

In Yorkshire, the introduction of the HWM PermaNET+ devices provides an upgrade to the current technology being used across their network. Martyn Hattersley, Head of Leakage Operations at Yorkshire Water said:

**"Each acoustic sensor and logger, is capable of identifying a leak within a very small target area, which is much more accurate than current technology allows. PermaNET+ gives us a much greater understanding and visibility of what is happening in some of the areas most prone to leaks. By installing these devices we will potentially help our Leakage Technicians save millions of litres of water being wasted, which will improve our water sustainability and reduce roadwork impact on customers."**

Jonathan Smith, UK Sales Manager at HWM added:

**"Yorkshire Water has embraced the new technology not only to improve their leak pinpointing, but also the ability to react faster when new leak alarms appear, reducing run time between a leak occurring and repair. This will be a key factor helping Yorkshire Water with their challenging leakage reduction target over the next 5 years."**

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## About Yorkshire Water

Yorkshire Water provide around 1.24 billion litres of drinking water every single day across one of England's biggest counties via their network of over 62,000 miles of pipework.

Yorkshire Water have invested in acoustic technology to help contribute to their challenging leakage reduction target of 15% by 2020, and a further 25% by 2025.



## About PermaNET+

PermaNET+ is the award-winning leak detection system that combines a leak noise sensor with versatile telemetry technology, creating a fixed network to monitor leakage.

PermaNET+ is designed with the latest mobile communication technology, reliably connecting whilst minimising cost. Each unit transmits both leak and secondary sound data via GPRS telemetry.

PermaNET+ is also fully compatible with Google Maps and overlays Yorkshire Water's GIS pipe network, allowing for real-time tracking and helping leak teams to respond quickly to problems within the network.



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