

# Water Leak Detection.

In 2013, Greater Manchester Police began a programme of installing remote loggers that were not only capable of providing a water meter reading but also providing a log of consumption every 15 minutes. This data is then collated by the Supplier on a daily basis and made available to GMP via an online portal. A handful of larger sites were selected for the programme initially, before being rolled out to a larger selection of sites.

One such site was the Openshaw Complex, home to the Business Support Services Branch. This is a large and complex site of three buildings housing everything from operational policing to printing services, vehicles workshops and car washes. The possibilities of high water usage either through a leak on the external pipework or faulty fittings inside the building was huge.

Consumption figures for each site are regularly checked, and it became apparent in January 2018 that there was an extremely high baseline level of consumption that required investigation at Openshaw. Time was then spent on site to examine potential sources of a leak, and several small washroom leaks were identified. Although this improved the situation a small amount, it did not stop the mystery consumption. Further investigation found water seeping out of the ground in a clump of bushes along the boundary of the site. Repairs were immediately arranged and completed and it was soon clear from the data that the problem had been solved – a cracked water main was our culprit.

As a result of the repairs, water usage dropped from 54m<sup>3</sup> per day to 10m<sup>3</sup> per day (average figures used). Similar issues have also been identified at the other sites where loggers are installed and have included leaks in washrooms and problems with water tanks in our roof spaces. Without the loggers, the leaks would have gone unnoticed until a larger than usual quarterly invoice from the utility provider had arrived.



Small puddle – without remote water logger would anyone think this was above a 44,000 litre a day water leak?



Source of the leak – a cracked 4" underground water pipe

**44m<sup>3</sup> of water a day (av.) saved.**