



BACKGROUND

Sydney Water (SWC) has an ambition to improve their sewer level monitoring capability as part of their 'Lifestream Strategy' initiative. The aim is to reduce the number of sewer blockages and uncontrolled spills of raw sewage in their network, which cause public health and environmental issues, leading to reputational damage and fines imposed by regulatory bodies.

STAKEHOLDERS

Sydney Water (SWC) provides potable drinking water, wastewater, and some stormwater services to around 5 million people in Greater Metropolitan Sydney, the Illawarra and the Blue Mountains regions, in the Australian state of New South Wales.

BUSINESS NEEDS

In 2017, **Metasphere** was selected to provide its Sewer Level Monitoring solution to **SWC**.

SWC required a cost-effective, reliable monitoring solution that could provide business critical data and alarms associated with high water level events potentially indicating blockages at points in the network.

SWC selected **Metasphere's Point Orange Remote Telemetry Unit (RTU)** coupled with the Pulsar dBi Ultrasonic Level Sensor to provide Sewer Level Monitoring at 200 locations initially.





BENEFITS

The key benefit to **SWC** was to obtain business critical data and alarms associated with high water level events potentially indicating blockages in the network.

The Metasphere Sewer Level Monitoring solution was able to deliver on these requirements and furthermore, the project was delivered without any safety incidents or lost time.

By deploying **Metasphere's Sewer Level**

Monitoring solution, **SWC** was able to meet health and environmental compliance and prevent reputational damage as **SWC** was able to reduce the number of sewer blockages and uncontrolled wastewater spills in the network.

Metasphere's Sewer Level Monitoring solution was so successful, that a further 5000 sites have been deployed across the Metropolitan Sydney area since the start of the project in 2017.

The **Metasphere Sewer Level Monitoring solution** collects sewer level data at various points in the network. Equipment at each monitoring point includes a **Point Orange RTU** coupled with a Pulsar dBi Ultrasonic Level sensor to collect sewer level data to monitor for blockages and uncontrolled spills at various locations within the network.

The measured sewer level values are sampled and stored with time stamps at periodic intervals, with the data being communicated directly to **SWC's** IICATS SCADA system via the 3G network and using the DNP3 protocol. The high-water level alarms received by **SWC** from the RTUs allow them to deploy operations teams to unblock potential sewer blockages before they occur.

To date, over 200 sites have been commissioned across Sydney providing **SWC** good visibility of their sewer network performance.

Since 2017, a further 5000 sites have been deployed across the Metropolitan Sydney area.

Point Orange is a self-contained unit, with internal or external battery pack, IP68 unit enclosure, either a 4G (NB-IoT/ CaT-M1) or tri-band 3G modem, with quad band GSM/GPRS fallback, auto-switching internal and external antenna options, software configurable AI, CI, DI, Modbus and SDI-12 communication options (inc. Multidrop), integrated submersion sensor, local diagnostic points and intelligent alarm reporting. It communicates with **Metasphere's** Master Control System and web- based **Palette** data visualisation platform, DNP3/WITS DNP3 Masters or FTP/S servers.

FIND OUT MORE!

Get in touch to find out how our solutions can transform your network.



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