



FLOW MONITORING

SUPPLY, DESIGN & COMMISSIONING



BACKGROUND

South East Queensland Water (Seqwater) manages about 1,400 irrigation metering sites, which are typically read manually to track water usage by local farmers. Seqwater uses Wide Area SCADA systems for other assets, and therefore wanted to make use of current, battery-powered telemetry technologies to remotely monitor irrigation assets for flow data, for billing purposes.

Seqwater learnt about Palette, Metasphere's cloud-based data visualisation platform, and the Point Colour range of RTUs/dataloggers following Metasphere's presentation: 'It is Not Hard to Monitor Your Remote Assets' in 2019 at the SWAN APAC Alliance workshop. One of the benefits of Palette is hierarchy levels for monitored sites; on this project, farmers could view data for sites on their properties, while Seqwater retained access rights to all their own sites.

Seqwater was also looking for flowmeter products which could be integrated with a telemetry offering. Flowmeter manufacturer KROHNE, approached Metasphere to jointly present a full turnkey solution.

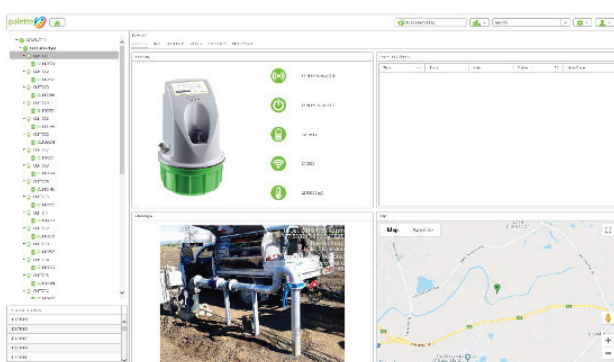
STAKEHOLDER

Seqwater is the Queensland Government Bulk Water Supply Authority, and provides bulk drinking water to 3.2 million people across South East Queensland. Seqwater also provides essential flood mitigation services, manage catchments, as well as providing water for irrigation services to about 1,200 rural customers across seven water supply schemes.

Seqwater covers a geographical area from Gympie Queensland to the New South Wales border, and west to the Toowoomba ranges.

BUSINESS NEEDS

Seqwater needed a solution to remotely monitor its irrigation assets. The project commenced with a 30 site trial: KROHNE WATERFLUX 3070 battery-powered magnetic flowmeters were coupled with Metasphere's Point Green RTUs and Palette for data capture and reporting.



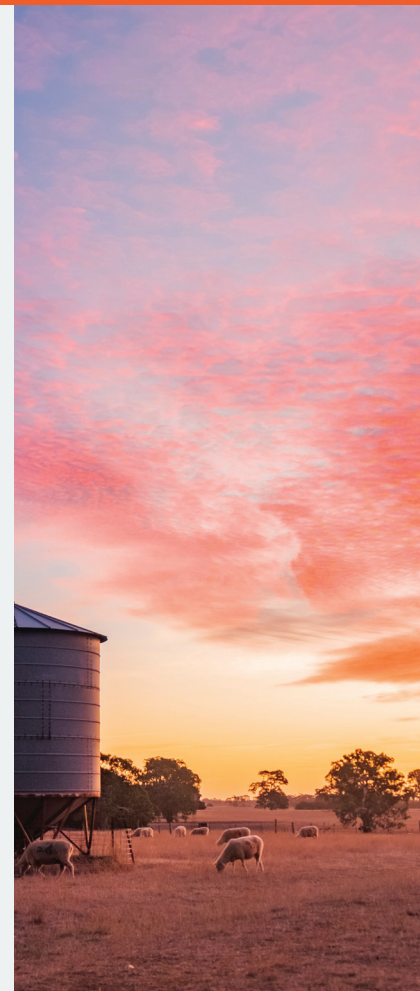
THE METASPHERE SOLUTION

KROHNE and **Metasphere** jointly presented a flow monitoring solution to **Seqwater** which included a **Point Green** RTU coupled with a **KROHNE WATERFLUX 3070** battery-powered magnetic flowmeter, with Modbus interface. The data is transferred to the **Metasphere Point Green** RTU via a single serial connection. For site installation, **KROHNE** designed a custom bracket to mount **Point Green** to the flowmeter unit, creating an easy operational set-up.

Point Green is a self-contained RTU with internal battery pack, IP68 unit enclosure, tri-band 3G modem, with quad band GSM/GPRS fallback, autoswitching internal and external antenna options, fixed DI, Modbus and SDI-12 communication options, integrated submersion sensor, local diagnostic points and intelligent alarm reporting. It communicates with **Metasphere's** Master Control System and web-based data visualisation **Palette** platform, DNP3/ WITS DNP3 Masters or FTP/S servers.

The **Point Green** RTUs are configured to wake up every three hours to monitor water flow, using the flowmeter serial Modbus data. Flow values are sampled, and stored with timestamps in the RTU, and data is communicated to **Palette** twice a day. It was notable that the **Point Green** RTU and the **Palette** data transfer worked quickly and seamlessly with **Seqwater's** OPTUS SIM cards, giving **Seqwater** full confidence in the solution's ability to provide flowmeter data.

On **Palette**, **Seqwater** staff are able to view *Estate, Site and Outstation* information pictorially, graphically and in tabular format; it is also linked to Google Maps for site location and street view - it is an easy-to-use system which allows the user to drill down through different levels for further detailed information, as required.



BENEFITS

The project proved highly successful for all parties. Many sites can now easily be fitted with a solution to remotely monitor flow data of irrigation assets for billing purposes.

Point Green, coupled with the **KROHNE WATERFLUX 3070** battery-powered magnetic flowmeter, is a flow monitoring solution with a proven track record, having been successfully deployed by other customers, such as **Water Authority Fiji**. A key benefit is the Modbus protocol supported on the **Point Colour** RTU range which enables the **Point Green** to seamlessly integrate with the **KROHNE WATERFLUX 3070**.

FIND OUT MORE!

If you would like to monitor irrigation sites and get alerts, get in touch to find out how **Point Colour** RTUs and **Palette** can transform your operation.



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