



## Wessex Water approach Pulsar Measurement for an EDM solution.

In August 2020, Pulsar Measurement was approached by a major UK Water Company, Wessex Water, who had reviewed their Sewage Pumping Station (SPS) control philosophy, and outlined that they needed a new obligation within this strategy requiring further Event Duration Monitoring (EDM) functionality.

The Water Industry is setting out to improve the visibility of their performance, specifically around storm overflow treatment. This means logging the timing and duration of discharges so the water company can produce reports to provide the Environment Agency (EA) with sufficient environmental data.

Wessex Water approached Pulsar Measurement about providing a solution to this commitment. Discussions

were held around the Ultimate Controller, which is Pulsar's standard 2 pump controller solution, to see if EDM functionality could be added. After some internal discussions with our product experts, it was clear that the Ultimate Controller would need some upgrades to be able to achieve the desired outcome of Wessex Water's requirements. After some deliberation and collaboration with Wessex Water, there was a time frame established and it was agreed that the upgrade to the Ultimate Controller would take around 16 weeks.

Wessex Water stipulated at one particular site that all new equipment installed and intended for EDM purposes should be capable of providing 2-minute interval logging. The Ultimate Controller was adapted to make it possible to enable or disable the EDM log individually and for the EDM interval to be configurable in the Ultimate's RTU configurator for all the analog inputs.

It was crucial for Wessex Water to have communication protocols to get a full overview of the site. The requirements specified that archive values will enter the



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Craig Leakey, Regional Sales Manager, Pulsar Measurement.

event buffer using time triggers and the buffer shall be sent to the DNP3 master, whether the communication is solicited or unsolicited. The archive buffer can be downloaded locally if there has been a communications failure to the device.

Thanks to our product experts, the upgrades to the Ultimate Controller included a condition that if communication is lost the events are written on the SD card, with each file the size of 1MB maximum with a total maximum of 40 EDM log files in the SD card. The Ultimate Controller can also hold up to 8,000 events in the buffer at any point in time. All EDM events are written in the EDM log files as and when they happen, so Wessex Water will not lose the events that happened should a comms loss occur. When communications are restored, the events will be sent back to the Master, on a first-in first-out basis. The archived events are written onto a log file in the SD card and can be downloaded locally via SD card or PC.

In December 2020, Pulsar Measurement had completed the upgrades to the Ultimate Controller, and the first unit was sent for a Factory Acceptance Test (FAT) conducted at a panel builder. The unit proved successful and the first unit was installed into Wessex Water in January 2021. The total time for the project, including all the product upgrades was only five months.

Wessex Water can now receive early warning detection of discharges while also gaining crucial duration information. Future maintenance can be proactive rather than reactive, with engineers deployable in a timely manner before a critical event occurs.

Speaking on behalf of Pulsar Measurement, Craig Leakey, the Account Manager for Pulsar Measurement stated: "This was a concerted effort, between two organizations with a great working relationship. It involved a detailed exchange of information within the constraints of a challenging timeframe and Pulsar was happy to assist. It is always a pleasure to collaborate with Wessex Water and their team – who are dedicated and very supportive. This project showcased the skillset and adaptability that Pulsar can provide in terms of our people and products, and I am delighted that we were able to achieve our objectives."

## Featured Products



Ultimate Controller



dB6 Ultrasonic Transducer



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