

# PRESS RELEASE

Middle Level Commissioners of March in Cambridge provide an engineering consultancy service to the East of Ouse, Polver & Nar Internal Drainage Board and one of their sites is an outfall sluice in the centre of the historic town of Kings Lynn.

David Phillips the Chief Engineer recommended that the board should automate one of their most awkward tidal outfall sluices, so they turned to Oriel Systems the Telemetry System solution providers for help and advice.

The main difficulties at the site were the salt-water environment and proneness to silting, which, compounded with the usual, (and not so usual !) debris that finds itself in the watercourse, meant that divers had to be employed to pump out the silt and remove other debris so that the necessary sensors could be installed.

The sluice has always been operated manually, with the tide flaps on the outlets closing as the river level rises on an incoming tide and sealing tight when the river level exceeds that in the Drain. If the tide flaps do not fully close, attention is required to prevent backflow through the pipes into the Drain and spilling onto valuable housing and farmland. The Sluice-keeper attends at each rising tide and performs the operations manually.

After discussions with Oriel engineers a specification of works was drawn up. The intention was to automate the position settings and operation of the back penstocks along with remote sensing of the tidal flaps to ensure safe operation at all times.

Sensors would be required to monitor the river level, the position of the tidal flaps, drain water levels and to actuate the penstock drive motors. An Oriel Systems Telemetry outstation was installed at the outfall site to provide local control and to collect signals from the sensors and instrumentation. The Oriel Telemetry outstation monitors all important parameters at regular intervals and updates the graphical display on the

Master Station PC located some 15 miles distant. However, upon an alarm condition occurring at the remote site, the Telemetry outstation immediately alerts the Master Station that an emergency condition has occurred whilst still completing the pre-defined course of corrective action.

The system came into operation at the beginning of this year and has proved to be a resounding success with all concerned. Other sites are planned for inclusion into the Telemetry system over the course of the next couple of years.

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