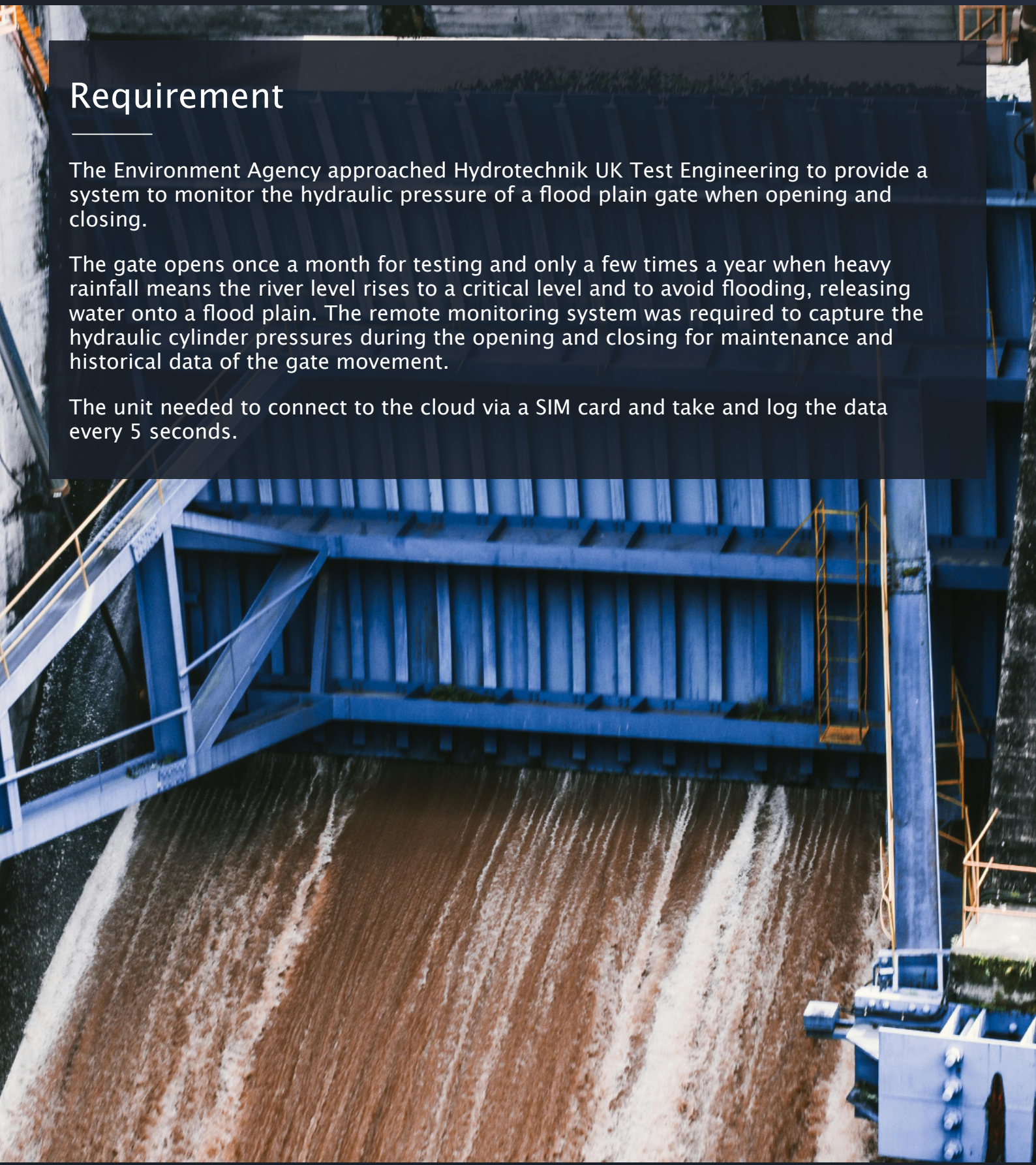
Flood Gate Pressure Monitoring
The Environment Agency



Requirement

The Environment Agency approached Hydrotechnik UK Test Engineering to provide a system to monitor the hydraulic pressure of a flood plain gate when opening and closing.

The gate opens once a month for testing and only a few times a year when heavy rainfall means the river level rises to a critical level and to avoid flooding, releasing water onto a flood plain. The remote monitoring system was required to capture the hydraulic cylinder pressures during the opening and closing for maintenance and historical data of the gate movement.

The unit needed to connect to the cloud via a SIM card and take and log the data every 5 seconds.

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Solution

Our Watchlog Pro cloud-based remote monitoring solution was decided upon. Using this technology, multiple sensors can be connected to the system and data can be analysed graphically online from any location.

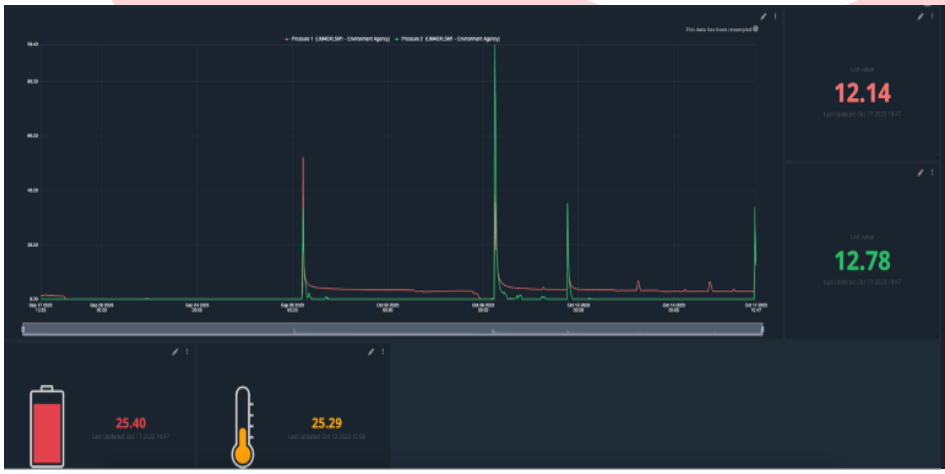
Pressure

Two of our HySense PR130 series pressure sensors were installed into the hydraulic system.

Watchlog Pro Cloud Monitoring

As the gate opens and closes the pressure can be seen on the cloud platform rising and falling when the gate opens and retracts at different times.

The sensors were connected to the Watchlog Pro via a junction box with 5m cables. Powered by mains input, the voltage was reduced and transformed to 24VDC to power the system. A single cable then connected the Watchlog Pro unit to the junction box. The customer provides the SIM card for the unit.



Conclusion

The customer can now view historical and live data and setup email and text alerts when certain parameters are met. The data is also helpful for detecting issues or planning maintenance.