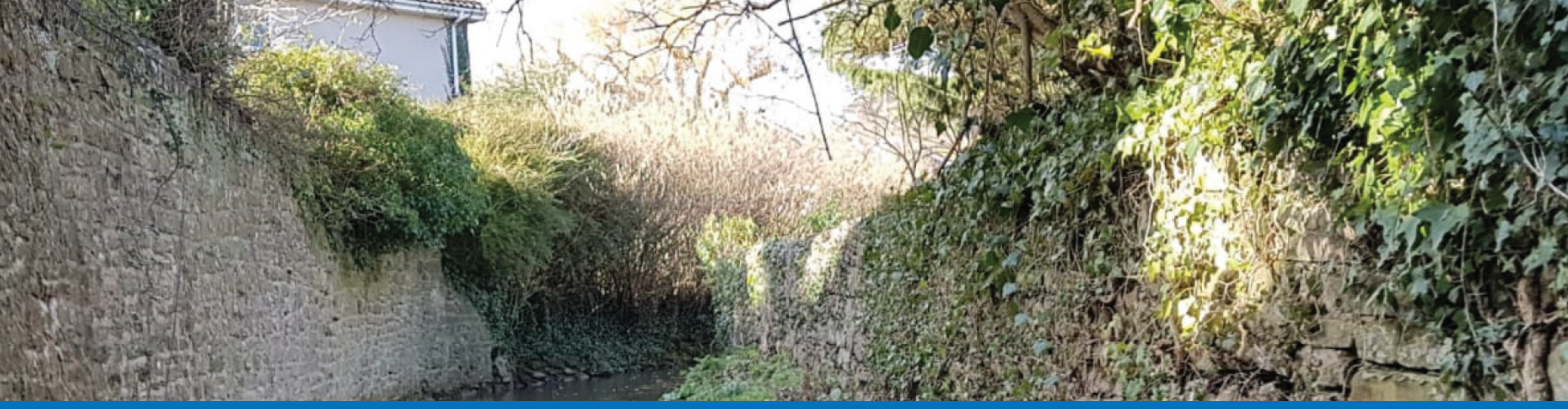


# PRIMARY SCHOOL AT RISK OF BEING CUT OFF DURING FLOODING UTILISES EARLY FLOOD WARNING SYSTEM

## Aquaread's LeveLine-EWS system gives local village and its primary school time to react to rising water levels

Chew Magna lies about 500m upstream of the confluence of two watercourses, the Winford Brook and the River Chew, both of which constitute a significant flood threat to the village.

Both catchments are "rapid reaction" with about a 75-minute lag between the peak of the rainfall and the peak of the river within the village, and while both watercourses can react identically, it is often the case that they behave differently in response to meteorological conditions.

Because of regular threats of flooding, many properties are supplied with "Property Level Protection" such as flood boards, which can be erected over doors and windows in the event of an imminent flood.

Because of the short time lag between the rainfall and the river levels, it is necessary to understand how the catchments react to the detailed meteorology and vital that the water levels are monitored regularly leading up to and beyond the time of maximum threat.

Prior to installing the solar powered LeveLine-EWS on the Winford Brook, it was necessary that flood wardens went out, often in the dead of night and always in heavy rain, to monitor the river levels.

If necessary, wardens would be required to organise the residents, caretakers of public buildings and businesses with the installation of their flood boards and barriers.

Once the first LeveLine-EWS had been installed on the Winford Brook, the readings were compared to a vertically-mounted ruler beside the gauge. It showed a linear relationship between the two. But more importantly, we were able to match the gauge readings with critical points on the rise of the river.

Wardens and residents could then request water level data via SMS from the LeveLine-EWS, obtain the reading and translate to the threat of flooding, all without leaving the house. And critically, to erect flood boards in plenty of time to protect homes. An important by-product was that it reduced the number of times boards were erected unnecessarily.


But there was another significant advantage; four alert levels were set at important milestones in the rise of the river and when each level was reached, texts were sent to everyone on the LeveLine-EWS's phonebook.

All parties were provided with a commentary describing the significance of each alert and this drastically reduced the workload of wardens in that residents were informed directly of the threat level.

The advantage of having the early flood warning system is most starkly illustrated by the use the local primary school makes of it. The school is at risk of flooding, but equally important is the fact that it can be cut off from the rest of the village when the Brook overtops.

The trigger for the evacuation is set at a specific level for the river – designed to allow time for the evacuation to higher ground where the children can be picked up, but at the same time minimising false alarms - a critical factor as parents have to be called in to pick up their children.

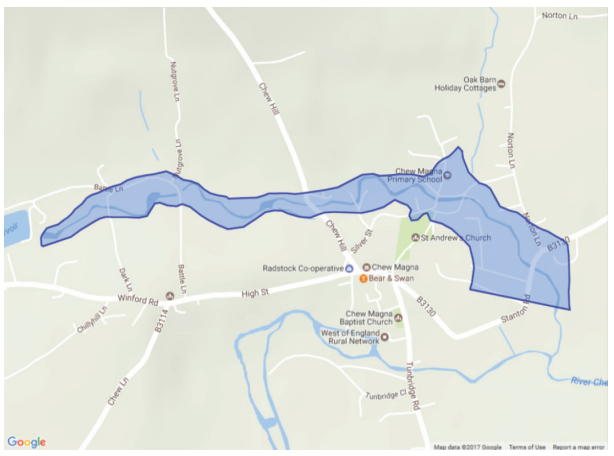
Before the installation of the LeveLine-EWS, teachers had to go regularly down to the river – often in driving rain – to check the river level. Since it's installation, the system automatically informs the school when the evacuation level has been reached.

A similar advantage is enjoyed by the operators of sheltered housing within the village.

The use of the LeveLine-EWS has massively enhanced the northern part of the village against

flooding from the Brook, and now we have installed a another flood warning device on the River Chew.

We expect that this will provide a similar advantage to the village – and indeed to communities downstream who will also benefit from the "early warning system" provided by the two LeveLine-EWS systems.

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