

# Early flood warnings for Whalley

## Sensor solutions proactively prevent flooding in urban drainage for a Lancashire village.

### Challenge

Whalley – a village located in the Ribble Valley, Lancashire – has experienced significant flooding historically, notably in 2012, 2015 and 2020. The village sits on the banks of the River Calder and a smaller watercourse, Wiswell Brook, is culverted under the main street. The culvert has a trash screen on the upstream side that is prone to blockage and requires regular maintenance to remove debris and mitigate flood risk. This screened culvert represents one of the principal sources of flood risk for the town.

In 2015, floods caused catastrophic damage, with over 300 homes and businesses affected and many residents requiring rescue. In response, the village set up Whalley and Billington Flood Action Group (WBFAG) to work with local authorities and find ways to mitigate risk from future flooding.



Catastrophic flooding hit Whalley in 2015, prompting residents to take action. Image courtesy of Daria Neklesa.



Since 2020, Previsico's sensor has been monitoring water depth at the entrance to the culvert.

### Solution

To support better understanding of flood risk from Wiswell Brook, Previsico installed a radar-based connected sensor that measures water depth immediately upstream of the trash screen to inform maintenance. [Watch the video.](#)

WBFAG members can access data in near real-time via a dashboard and warnings are issued when critical water depths are detected. Warnings are automatically delivered via text message, enabling WBFAG to:

- Clear the trash screen to lower water levels, reducing risk of flooding to homes and businesses, locally.
- Co-ordinate flood wardens during a flood event.
- Implement flood action plans as necessary, protecting properties, lives and livelihoods.

### Benefits

- Supports proactive and effective coordination during events. Warnings can be sent to WBFAG members wherever they are – enabling them to take immediate action.
- Proven as a prevention tool across multiple events: Since the sensor was installed in 2020, two critical warnings have enabled flood wardens to clear the trash screen in time to prevent the village from flooding.
- Previsico's sensor solution is helping to reduce anxiety amongst village residents by enabling them prepare in advance, protect valuables and move vulnerable residents to safety.

## The growing flood problem...

- 1 in 5 properties affected by surface water flood risk.\*
- 33% UK commercial properties at risk from flood.\*
- Long-term mental health problems up to nine times more likely for flood victim.\*

### \* References



## Connect with us

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In 2020, the alert went off on Boxing Day evening at around 11pm. It alerted our flood wardens and we managed to get to the culvert and clear it before it flooded the village. We can only recommend this type of technology as it is the way forward in flood management tools.

Gill Darbyshire,  
Whalley and Billington Flood Action Group

