

## Learning Alert 24-20 WINEP Batch1 – Blyton STW – Wall Collapse

*The following Safety Alert contains content from an external source which is relevant to MWH Treatment Operations*

### Incident Summary?

On the afternoon of Tuesday 2nd January 2024, the site team attended Blyton STW after completing their back to work induction, post-Christmas at another local site to conduct site checks prior to starting back to work on Wednesday 3rd. During the visit it was noted that the split wall between reed beds 2 & 3 had collapsed. It is assumed that the failure occurred on the night of the 1st/early hours of the 2nd of January. There would have been no risk to any person/persons, either MWHT or client as no operatives were working in the bed or on site at the time of the incident.

The pipework is to be removed and diverted.

### Photographs



There had been persistent heavy rain on the 1st & 2nd of January causing localised flooding on site and the surrounding area. Following the investigation, the root cause points towards site being surcharged with excessive flow which in turn overwhelmed bed 3. As bed 3 had not yet been refurbished the extra effluent could not percolate through the bed efficiently, so an extra 300 - 400mm of water sat on top of the bed within the walls, the weight of this extra water in turn caused the wall to fail because there was no support from bed 2 as this bed was empty for refurbishment works.

## **Learnings – What do we need to do differently?**

For refurbishment works on reed beds of this type, i.e. of a brick wall construction as opposed to battered earth banks, extra temporary treatment should be utilised to enable multiple beds to be taken offline on any given time. This in turn would mitigate the risk of wall failure as there would be no forces on the split walls from adjacent reed beds. If for whatever reason all beds could not be taken offline for either process or site constraints a temporary works design will be put in place to protect the structure from collapse.

