



# The British Dam Society

## TECHNICAL SITE VISIT

Wednesday 26<sup>th</sup> March at 9:30am or 1:30pm

## Toddbrook Reservoir, Whaley Bridge

### CONSTRUCTION OF A NEW SPILLWAY AT AN EXISTING RESERVOIR



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## SYNOPSIS

Toddbrook reservoir is owned and operated by Canal & River Trust and provides over 30% of the water needed for the Peak Forest Canal. The reservoir was completed in 1840 by building a dam on the Todd Brook. The dam is 24m high and made of earth with a core of puddle clay. It has a storage capacity of 1.238Mm<sup>3</sup> and a surface area of 0.158km<sup>2</sup>.

Following heavy rainfall in August 2019, water levels rose in the reservoir and water overflowed down the auxiliary spillway. Some of the concrete slabs on the spillway were damaged and the earth dam shoulder underneath was exposed. Following emergency works, the reservoir was kept at a reduced level, whilst a permanent solution was developed.

In October 2019 an inspection was made under Section 10 of the Reservoirs Act, 1975. The report, issued on 30th March 2020 provided a series of recommendations to ensure the ongoing safety of the dam. These have resulted in a capital scheme to complete dam safety works to the dam as defined below:

1. 72m long multi-stage weir
2. Emergency drawdown structure
3. Tumblebay
4. Spillway chute
5. Stilling basin

The works are designed by Arup and constructed by Kier.

This technical site visit will focus on the emergency works, design of the permanent works and construction of the project, the challenges which have been faced during this time and how they have been overcome. This visit offers an opportunity to visit the working construction site during an exciting time in the programme, as concrete works are progressing and work on the damaged auxiliary spillway is beginning.

## GUIDANCE FOR ATTENDEES

The visit will be a half day visit commencing with a short presentation at the Mechanics Institute in Whaley Bridge, SK23 7AA. Arrival from 9:00am for the morning session and 1:00pm for the afternoon session. It is then a short walk up to the construction site. Tea and coffee will be available.

Travel via public transport to Whaley Bridge is recommended. Parking can be found in Whaley Bridge town centre, at the train station car park, SK23 7BL or Canal Street car park, SK23 7LX.

Full PPE will be required to be worn on site (hard hat with a chin strap, safety boots, safety glasses, gloves and long sleeve high visibility vest & trousers). Orange trousers and yellow jackets are preferred in line with the sites safety policy.