

## Toddbrook Reservoir FAQs

Updated on 13 August

### What has happened?

After a period of very heavy rainfall – which caused widespread problems across the North West – the spillway at Toddbrook reservoir was damaged and was at risk of collapse.

### Is it now safe?

Following a multi-agency around-the-clock effort, which saw over a billion litres of water pumped from the reservoir, just after lunchtime on 7 August, it was declared safe for residents of Whaley Bridge and boaters on the stretch of the Peak Forest Canal to return home. The Canal & River Trust is hugely grateful for the help of the emergency services and for the understanding and patience of local residents in what was a very difficult and distressing week for them.

### What did the emergency response involve?

Between Thursday evening and the following Wednesday morning over one billion litres of water were pumped out of the reservoir into the River Goyt – working with the Environment Agency to avoid downstream flooding. This lowered water levels in the reservoir by over ten metres.

An RAF Chinook helicopter dropped over 500 one tonne bags of aggregate onto the damaged section of spillway to reinforce the structure and grout was poured around the bags to bind them to further strengthen the dam.

At the same time work to divert the feeds of water into the reservoir took place to prevent it filling back up. Pumps remain onsite to ensure that any reservoir ‘refill’ from rain is removed and the reservoir is kept near empty.

### How has this happened?

It’s still too early to say how this has happened and following the emergency response a full investigation will leave no stone unturned to find the cause of the failure. The intense rainfall experienced in the area on the afternoon of Weds 31 July is thought to be a significant contributory factor. Our engineers are on site and will commence with surveying the dam.

### How does the Canal & River Trust inspect its reservoirs?

The Canal & River Trust manages 72 reservoirs across the country and has an experienced team of specialist reservoir engineers. These engineers are appointed into the role by the Secretary of State for the Environment on the advice of the President of the Institution of Civil Engineers. Their inspections meet the industry’s highest standards.

As well as visual inspections twice a week by Trust operatives, our reservoirs are rigorously inspected twice each year by our reservoir engineers and also undergo detailed ten yearly inspections by an independent government-appointed Inspecting Engineer. These inspections consider the best industry-wide knowledge regarding dam construction and stability. We prioritise spending money on reservoirs wherever a need for maintenance work and/or repairs is identified.

### **When was Toddbrook Reservoir last inspected?**

The dam is visually inspected twice weekly by Canal & River Trust operatives and rigorously inspected twice each year by our skilled reservoir engineers. It also undergoes a detailed ten yearly inspection by an independent Inspecting Engineer – the last one at Toddbrook took place in November 2018. The independent November inspection did not identify any immediate repairs needed to the spillway.

### **By draining down the reservoir didn't you just transfer a flood risk downstream?**

Our priority was to lower the level of the reservoir to reduce the risk to the town of Whaley Bridge. While the discharge into the river increased flows, this did not present the same level of risks. Colleagues from the Environment Agency and the emergency services coordinated the downstream response to minimise risk to property and infrastructure.

### **Has the Trust considered the effects of climate change on its historic dams?**

The standards by which our structures are measured and assessed are constantly being reviewed. This would include any learning from the impact of changing weather conditions.

### **Can the dam be rebuilt or repaired?**

Technically yes, anything can be achieved but the exact nature of rebuild or repair of the dam will be determined following the investigation into the cause of failure and using the latest design and construction techniques.

### **We've seen photos of vegetation growing out of the sides of the auxiliary spillway. Could this have contributed to the failure?**

No, we do not believe the small scale vegetation growth on the spillway would have played any part in the failure. Reservoirs come under clearly-defined obligations requiring supervision, inspection and maintenance by independently certified reservoir engineers and we adhere to this regime.

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### **Is the Canal & River Trust insured?**

The Canal & River Trust has in effect third party insurance on our historic canal system - with public liability insurance which covers third party loss directly arising from the Trust's legal liability but not insurance for repairs of its assets as the costs of repairing the canal infrastructure itself would be very difficult and/or uneconomic to insure.

### **How old is the reservoir?**



## What is the reservoir for?

The reservoir provides water to the Peak Forest Canal and onto the Macclesfield Canal at Marple.

## How big is it?

The reservoir is around 0.5 km long. It has a capacity of 1,238 megalitres. It has a surface area of 0.056 sq miles and a top water level of 185.69m. The volume is the equivalent of 495 Olympic sized swimming pools. The dam is 23.8 m high.

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