



Mr Andrew Fox
Town Clerk
Whaley Bridge Town Council
Mechanics Institute
Market Street
Whaley Bridge
SK23 7AA

3rd March 2022

TODDBROOK RESERVOIR – CONCERNS OF RESIDENTS

Dear Andrew,

The Trust recognises that members of the local community have concerns regarding our proposals to restore the reservoir, given the severity of the 2019 incident and the disruption it caused to residents of Whaley Bridge.

The investigation and design of all necessary works to restore the reservoir to safe operational condition have been done by specialist engineering consultants, employed by the Trust. This has encompassed thorough geotechnical investigations as well as geophysical surveys. The relevant investigation and design process has been overseen by an expert independent Qualified Civil Engineer (QCE), who is appointed by the Secretary of State to the (All Reservoirs) panel of engineers established under the Reservoirs Act 1975. The QCE will continue to oversee any further design and construction work to ensure the restoration of Toddbrook Reservoir complies with our statutory requirement to manage the asset in the interest of public safety. Ultimately, the reservoir would not be refilled unless it was absolutely safe to do so.

The Trust is aware of the reports compiled by a local resident that you have referred to. Indeed, the independent QCE overseeing this project has spoken with the author of the report to discuss the QCE's role in the project, in light of their comments. The QCE remains satisfied with the proposals set out in the planning application and that they comply with our statutory obligation to manage the asset in the interest of public safety.

Our team has reviewed all public comments submitted on the planning application, some of which overlap with the concerns you have raised. In order to demonstrate how these comments have been considered, we prepared a response to these concerns, which has been published on the relevant planning application page on High Peak Borough Council's website. In particular the legal framework for reservoir safety and sequencing of the construction works have been addressed here, as well as being included in this letter below.

Legal Framework to Ensure Reservoir Safety

The dam and reservoir are subject to the Reservoirs Act 1975, which provides the legal framework to ensure its safety. The Environment Agency is the regulator for the Reservoirs Act. Safety works required under the Reservoirs Act may separately require planning permission (and indeed any other consents that may be needed) as is the case here, but the safety aspects of the design and works are governed by the Act.

Following the incident in August 2019, the dam and reservoir were inspected under Section 10 of the Act and a report prepared which contained recommendations to ensure the safety of the dam. The inspection and report were made by the QCE, who is appointed for such purposes. The inspection considered all aspects of the dam and reservoir, and it included a number of recommendations, not just the replacement spillway, which is the primary subject of the planning application. The planning application Design and Access Statement includes a confirmatory statement by the QCE accepting the design of the proposed spillway system.

The remit of the QCE is not limited to the design of the spillway; it encompasses the dam and reservoir in full to address public safety. The other recommendations included investigations to provide or enhance knowledge about the condition of the dam, to enable assessments of its performance to be made, and remedial or upgrade works to be designed. This includes removing the auxiliary spillway slabs and repairing the embankment that was infilled by the bags dropped by helicopters, as well as works to the core. In addition, at an appropriate time prior to refilling, permanent equipment will be installed to monitor the dam. This will significantly enhance the ability to monitor its condition and performance.

Safety recommendations arising from an inspection under the Act are required to be supervised by an independent engineer appointed by the Secretary of State to the panel of engineers established under the Act. They are then required to certify under the Act that the measures have been completed. The QCE is retained to supervise and certify when they are satisfied that the measures have been taken; only then could the reservoir be refilled again for return to operational use. The assessment and design reports prepared by the Trust's design consultant to address the recommendations are subject to review and acceptance by the QCE. Therefore, assurance of safety of the full spillway and dam system is addressed by the overseeing role of the independent QCE appointed under the Reservoirs Act. Once the works are completed, the reservoir and dam will continue to receive regular statutory inspection by a Supervising Engineer appointed under the Act, as well as periodic independent inspection and reporting, and will continue to be regulated by the Environment Agency.

Sequencing of the Construction Works

The raising of the dam crest (already completed) was to provide sufficient assurance of safety to the dam in the most extreme storm circumstances, so was a necessity to install prior to repair works being designed and implemented. This installation, together with keeping reservoir water levels low by reducing inflows and using pumps when needed, further reduces the already very small probability of water overtopping onto the auxiliary spillway.

Regarding the proposed works, the new overflow system (the spillway) is a necessity to manage flood flow and ensure the safety of the dam, and therefore must be installed first. We are aware of the suggestion for the concrete to be removed from the auxiliary spillway beforehand. However, were the reservoir to be subject to an extremely high order flood event causing overflow to the auxiliary, then this would be of severe threat to the integrity of the dam. By constructing the spillway first, the facility for safe overflow from the reservoir will be in place prior to exposing the area that has been damaged.

The construction sequencing planned (spillway construction prior to the auxiliary spillway removal and dam repair) is the only safe sequence in which to undertake the works, and the only one that would be permitted by the QCE for reasons of public and reservoir safety. Only once the new spillway is in place, the auxiliary spillway removed and the dam repaired (completed in order), can the reservoir be safely refilled.

The whole reservoir system is being addressed as part of the project, and this was the scope of the Section 10 report as stated above. Upgrades to the dam outlet pipes and diversions of the canal feeder pipework are noted on the drawings submitted with the planning application; albeit whilst important for future reservoir operation, they do not form a major influencing factor of the project in planning determination.

Regarding access to the reservoir inlet weir and upgrades to the inlet structure itself, these are indeed also part of the required works to the reservoir. However, owing to the necessary water control facilitating construction and the necessity for use of the bywash for safe reservoir level management, the improvements can only be undertaken sequentially after the main works described above. As such, it was determined that the necessary consultations for this element of the overall scheme would be undertaken separately; hence it was not included in the planning application which incorporates the majority of work in the vicinity of the dam.

We hope that this information provides reassurance that the project team is aware of local concerns, and that the appropriate processes and oversight for investigating and designing the reservoir infrastructure have been followed.

We look forward to continuing to engage with the Town Council regarding the project, aiming to address any queries you may have and communicate openly, as we have done so to date.

Yours sincerely,

Tom Greenwood
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