

30 April 2019

**Our Ref** JS/SW/300419

**For the Attention of:**

John Gittins  
Senior Coroner  
County Hall  
Wynnstay Road  
Ruthin LL15 1YN

Sent by email: [john.gittins@denbighshire.gov.uk](mailto:john.gittins@denbighshire.gov.uk)

Dear Sir,

**Inquest touching the death of Kristopher John McDowell  
Response to Regulation 28(1) 'Report on action to prevent other deaths'**

I am responding on behalf of the Canal & River Trust ("the Trust") to your Regulation 28 Report dated 7<sup>th</sup> March 2019, in light of the tragic and untimely death of Kristopher McDowell. Please take this letter as the formal Response by the Trust to your Report. I confirm that I am duly authorised to respond to your report on behalf of the Trust with full support of the board of Trustees.

You raised two concerns in respect of this matter which I set out in full and address in turn as follows:

- (a) The average space between the uprights on the parapet on the aqueduct is 195mm whilst the current industry standard is 110mm as a result of which there exists a risk that a person might be able to pass between them. This is a particular risk for children using the aqueduct but it is also a significant risk for young persons or adults being of sufficient width for them to pass through in circumstances whereby it was their intention to gain access to the non-pedestrian side of the parapet for a purpose which would not be considered the intended use of the structure.

In my opinion, the use of signage alone, warning users of the potential risk, does not adequately mitigate the risk of a person passing through the uprights and falling from the aqueduct.

The Pontcysyllte Aqueduct is a UNESCO World Heritage Site, a Scheduled Ancient Monument, and is a Grade 1 Listed Structure. The Aqueduct's inclusion on the World Heritage List highlights its outstanding universal heritage significance. Its preservation in its original 200-year old state has been a major factor in the structure achieving such heritage status.

Canal & River Trust, Ground Floor, Aqua House, 20 Lionel Street, Birmingham, B3 1AQ.

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Patron: H.R.H. The Prince of Wales. Canal & River Trust, a charitable company limited by guarantee registered in England and Wales with company number 7807276 and registered charity number 1146792, registered office address First Floor North, Station House, 500 Elder Gate, Milton Keynes, MK9 1BB.

The uprights and their spacing are as they were originally built and they are an integral part of the historic structure. The Trust has been aware that their spacing exceeds the standard that would apply if they were built today.

Given the Aqueduct's extraordinary heritage significance, the Trust has deliberately sought to manage the risk of anyone passing between the gaps by non-invasive controls to minimise any impact on the original aqueduct design. As stated in evidence to the Inquest, the Trust uses warning signage to advise visitors prior to them accessing the structure, and through the use of volunteer rangers at peak times and by appropriate information found on the Trust's website. The signage is installed in prominent locations on the approach to the parapet and on "repeater" posts installed in the towpath. The Trust has identified the risk of unsupervised young children in relation to the gaps, and specifically addresses this in the warning signage. During the course of your investigation, these signs were enhanced by the Trust to advise dog owners that dogs should be kept on a lead.

This approach is in accordance with and has been used as a best practice example of managing visitor safety in the historic built environment; the Aqueduct appears as a case study on the 'Visitor Safety in the Countryside Group' website.

The Trust considers that the Aqueduct is safe for normal use and that the control regime adequately addresses the risks associated with normal use. As you will recall you made a statement to that effect in your closing remarks at the conclusion of the Inquest.

Further, we believe that the height of, and the drop from, the Aqueduct is clearly apparent to those using the towpath and our experience is that those walking onto the Aqueduct with children are conscious of the risk and approach with caution.

You have asked us to consider a degree of abnormal use and we bear in mind that, at the Inquest, the family's representative stated that locally it is believed that young adults have on occasions put themselves deliberately at risk by passing between the uprights. The Trust was not aware of this and has no records, reports or sightings of individuals acting in this way prior to the incident. In our preliminary consideration of your report, we have recognised that further warning signage can be used to reinforce the safety message on the approach to the Aqueduct. We attach photographs of the new signage which has been installed specifically warning and discouraging people from climbing on or through the uprights.

The Trust has also given further careful thought to this issue raised in your report. It also bears in mind, and has high regard to, the perception by the public of the safety of its structures. Our ambitions and those of our partners for the World Heritage Site are to see it protected and celebrated, drawing increasing numbers of visitors. The significant heritage status of the Aqueduct, including the parapet, means that the Trust must seek explicit consent from the Welsh Government through CADW (the Welsh Government's historic environment service) before carrying out any works to the structure with any permanent changes to the appearance of the Aqueduct likely to be of particular concern. As Visitor safety – and perception of safety - remains our paramount concern, we have decided to explore with CADW and our other partners how the

perceived potential risk presented, including an abnormal use of the aqueduct, by the current gaps between the uprights can be further reduced.

We will progress this work with all due speed and anticipate the following timeline:

- We have started an investigation of the physical options available to address gaps between the uprights, working with relevant partners and regulatory bodies. We aim to have this completed by the end of September 2019. If we conclude there is more than one physical option that is suitable (taking into account the physical integrity of the Aqueduct) to reduce the width of the gaps then we will proceed to the consultation process referred to immediately below this bullet point;
- For example, at Marple Aqueduct which was referred to at the Inquest, we undertook an informal public consultation relating to the options which guided the final design and, we believe, eased the consenting process. We will expect to do the same here and need to allow sufficient time for this; our outline plan is for this consultation to be conducted later in 2019 and completed by early 2020;
- At the conclusion of the informal public consultation the Trust will develop and then submit a final design for statutory approval.
- The consenting process should take up to 13 weeks once any design is submitted so we would expect, if statutory approval is granted promptly, that any works approved can commence on site from the end of October 2020.

The consenting process is a statutory requirement and we are not in control of the ultimate outcome or the time this will take. We believe that any physical intervention on the railings has the potential to be very controversial and so want to ensure that any measures proposed are developed collaboratively and meticulously, so that they have the best chance of securing approval. Given that the structure is the centre piece of the World Heritage Site we anticipate that discussion will be needed with UNESCO or their agents and cannot state how this might affect this timeline,

**(b) Evidence provided by an expert instructed by the Canal and River Trust (CRT) [sic] indicated that it was his belief that the upright became detached as a result of a lifting action which dis-engaged the nib on the bottom of the upright from the socket on the outside of the parapet. The evidence provided to the inquest by engineers from CRT advised that their inspection procedures provided for an Annual Inspection which included testing for the extent of embedment by a push/ pull/ lift test, however in my opinion the subjective elements of this test this would permit inconsistencies in the information which it provides. Furthermore, exact measurements of the degree of embedment of uprights would only routinely be established in the course of Principal Inspection which takes place every twenty years and as a result it is difficult for there to be an accurate/ regular assessment of the rates of possible deterioration and hence the true extent of embedment.**

In my opinion, the testing processes currently adopted (in regard to the matters detailed above) are inadequate to ensure that the uprights are properly engaged at all times.

The Trust gave detailed evidence to the Inquest in relation to its asset inspection procedures. These are documented and comprehensive and align with similar practices used elsewhere to manage comparable assets, as both independent experts confirmed at the Inquest. Both experts gave evidence that they were satisfied with our inspection procedures so far as the engagement of the uprights was concerned.

You have raised a concern that our inspection procedure could fail to identify an issue with the embedment of the uprights and drawn attention to perceived subjectivity of parts of the testing regime.

Our inspection processes are determined from a risk-based approach that balances likelihood and consequence of a failure, and considers issues such as the material properties of the railing and the known very low rates of degradation. The 2016 Special Inspection confirmed that all of the uprights were sufficiently engaged.

We are satisfied that our inspection regime is proportionate and repeatable. The push-pull-lift test is only one part of the wider inspection programme to ensure the engagement of the uprights. In addition, our approach to training our inspectors, regular checking of their work and peer review through more detailed inspections which all cross-check the monthly inspections, ensure that consistency is achieved. This was discussed exhaustively at the Inquest.

Notwithstanding this, we are not complacent and are very concerned that there should be public confidence in our stewardship of the Aqueduct. During the forthcoming Principal Inspection which will be undertaken this year, the condition of each of the uprights will be inspected and the engagement will be checked again. We will compare this result with the 2016 inspection and consider further what the frequency of future checking needs to be. The inspection and the review will be completed by early 2020.

Further, we are (as described in our response to a) also undertaking to review whether to make physical changes to the railings. Should this be approved for action in 2020, we will also need to give further consideration to the future Inspection cycle for any new physical measures we may introduce.

The Trust submits this response to your Report.

Yours faithfully

A handwritten signature in blue ink, consisting of a series of loops and a long horizontal stroke.

**Chief Operations Officer  
Canal & River Trust**