

M J Ellison  
Friends of Poynton Pool  
c/o The Civic Hall, Park Lane  
Poynton, Stockport, SK12 1RB

Lorraine O'Donnell, Chief Executive Officer  
Cheshire East Council  
Westfields  
Middlewich Road  
Sandbach  
CW11 1HZ

Dear Ms O'Donnell

## **Poynton Pool Spillway Upgrade Project error - open letter**

I write, on behalf of the Friends of Poynton Pool group and the residents of Poynton we represent, to bring to your attention a significant error that has misled your council's officers and members, and the public. This error has been acknowledged by Jacobs senior All Reservoirs Panel Engineer [REDACTED] but we question whether its significance been communicated to the key decision makers in the Council?

### **Introduction**

Poynton Pool is classified as a reservoir under the Reservoirs Act 1975 (the Act). The Act requires a ten yearly review of dam safety and in 2016 a report produced following such a review recommended:

*An Emergency Drawdown Plan shall be prepared for the reservoir..., and  
A Flood Study Assessment shall be prepared for the reservoir...*

Commissioned by Cheshire East Council (the Council), these works were completed and a certificate under Section 10(6) of the Act was issued by Jacobs on 5 December 2019 stating that the above recommendations had been "*carried into effect*".

Following the issue in November 2019 of the *Flood Study Report* commissioned by the Council, the CEC appointed engineers Jacobs issued their *Spillway Upgrade: Initial options report* in June 2021. We have serious concerns regarding veracity of this report, some of which we have already communicated to the Council and others that we will bring forward when a planning application for the spillway proposal has been lodged.

### **The error**

The Executive Summary of the *Initial options report* states "*The current annual chance of failure is estimated as 1 in 250 per year, representing 140mm depth of overflow over the dam crest. When plotted graphically, the level of risk is therefore in the unacceptable zone where works should be carried out to reduce the risk.*"

At 4.6, the report states "*The estimated LLOL and index probabilities of dam failure were plotted on an FN chart, see Figure 3.2. **This indicates that the current risk for the upper dam lies within the unacceptable zone. Thus some works are necessary.***" (my emphasis).

The aforementioned graphical representation from figure 4-3 of the *Initial Options Report* is shown below at figure 2. It uses an F-N chart taken from The Environment Agency's *Guide to risk assessment for reservoir safety management - Volume 2: Methodology and supporting information* (RARS). **The error is that the upper and lower boundaries of the Tolerable Region of Risk (ALARP) are misplotted and when the correct boundaries are used, the plotted risks are NOT in the Unacceptable Region, they are in the Tolerable Region.**

To assist interpretation of the charts, the correct boundary lines are inserted in figure 2 along with notes, all of which are in red.

Figure 1.

The societal risk point plotted on the F-N chart will fall into one of three categories as divided by the 'ALARP' boundaries in Figure 9.1. This means that the social risk will be classed as being one of the following:

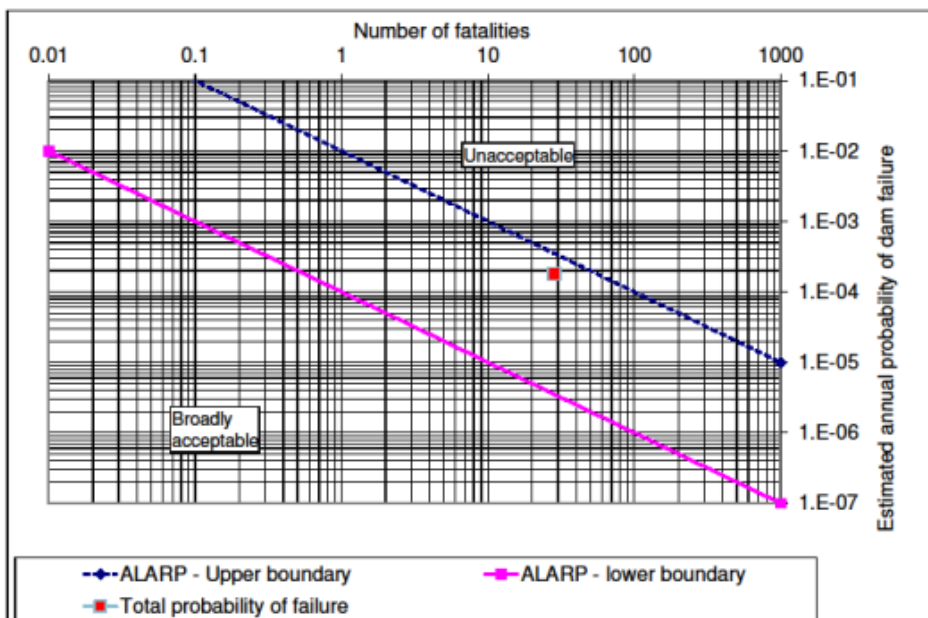
- a. 'Broadly acceptable' – risks compared with those that people live with every day, and that they regard as insignificant and not worth worrying about (for example, health risks associated with using mobile phones)
- b. 'Unacceptable' – risks are generally believed by individuals and society to be not worth taking regardless of the benefits (for example, building residential areas on toxic landfills)

Risk Assessment in Reservoir Safety Management, Volume 2: Methodology and supporting information 145

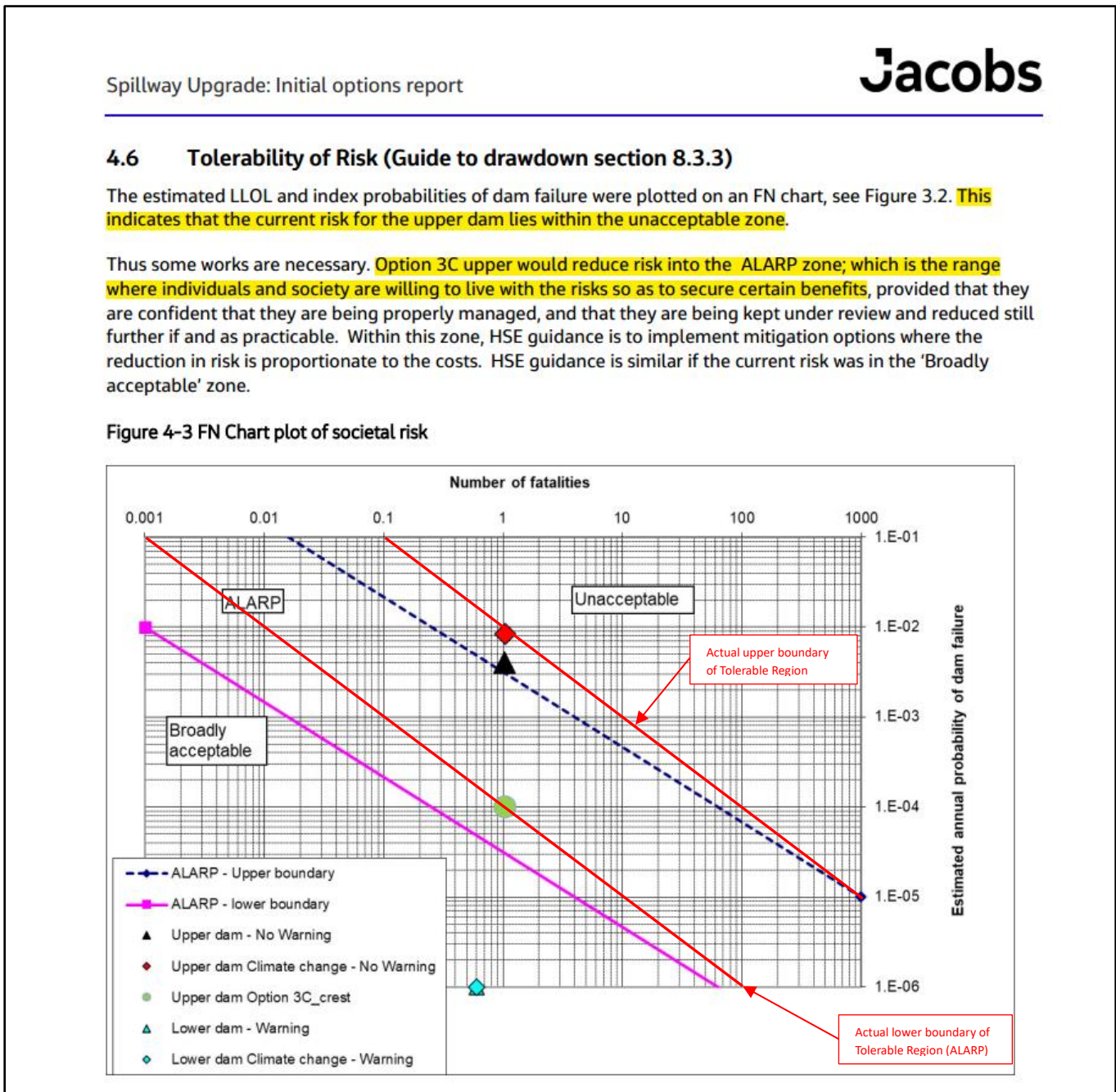
- c. 'Within the range of tolerability' – individuals and society are willing to live with the risks so as to secure certain benefits, provided that they are confident that they are being properly managed, and that they are being kept under review and reduced still further if and as practicable.

These categories are adapted from HSE (2001) and Le Guen (2010).

Figure 9.2 Example of a simple F-N plot



**Figure 2.** Red text and lines added to illustrate the correct positions of the ALARP boundaries as per RARS



### Friends of Poynton Pool's position

The aforementioned error has resulted in the Council, Poynton Town Council, and the public being misled into believing that the risk is unacceptable when it is clearly demonstrated here that it is within tolerable limits. Going forward, any consideration of mitigating the risk from the release of Poynton Pool should be on the basis that it is already within tolerable limits and on balance of the costs and benefits of intervention any risk mitigation measures must be proportionate to the projected reduction in risk. It is Friends of Poynton Pool's position that when considering this balance, the Council must account for all the negative impacts. It is simply not enough to say that the risk must be reduced at any cost.

We have consulted with a chartered water engineer Mark Buttle who has produced a note of his observations and opinion in the attached document. I would encourage you to read it and review the approach that the Council has taken towards the people who will be most affected by your decision.

At every opportunity we have suggested a meaningful dialogue would assist in finding a workable solution to the current situation. At each approach we have been dismissed without any meaningful discussion.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M. J. Ellison', written in a cursive style.

**M. J. Ellison**

**For Friends of Poynton Pool**

cc. Sam Corcoran, Leader of Cheshire East Council  
Haf Barlow, Clerk to Poynton Town Council  
Hayley Whitaker, Cheshire East Councillor  
Jos Saunders, Cheshire East Councillor  
Mike Sewart, Cheshire East Councillor  
Mike Beanland, Cheshire East Councillor

**Attachment.** Poynton Lake Spillway Upgrade – An Engineer’s Comments. August 2023, Mark Buttle CEng MCIWEM