

On behalf of the Environment Agency

Witness: Harriet Ames

OBJECTION REFERENCE NUMBER: ENV/3378112

Dated: 30 July 2026

REBUTTAL PROOF OF EVIDENCE OF HARRIET AMES

- 1) This is a rebuttal statement to certain points made by Chris Elliott in his Residual River Flow Assessment. This statement should be read together with my main proof of evidence. I provide this rebuttal statement to assist the Inspector on matters of technical detail where written explanation will assist the inquiry more than simply responding orally. I respond here in particular to the following points made by Mr Elliott in the executive summary of his Residual River Flow Assessment:

During the monitoring period:

- calculated residual flow ranged from approximately 53 l/s to at least 70 l/s
 - typical residual flow was approximately 60 l/s
 - the licensed minimum residual flow of 25 l/s was not approached during the monitoring period.
- 2) The Residual River Flow Assessment does not provide any information on the natural river flow upstream of the abstraction during the monitoring period.
 - 3) I have therefore calculated natural river flows for Old Walls over the monitoring period using the same standard methodology applied in the current and proposed licence impact modelling (see Appendix A of the Hydrology report [CD6]), which is described below:
 - I have exported daily mean gauged flows from our hydrometric archive for 22nd to 25th of June 2026 for Austins Bridge gauging station.
 - I have naturalised the daily mean gauged flows to account for upstream reservoir and abstraction impacts.
 - I have transposed the natural flows for Austins Bridge to Old Walls using the Qube Mean flow ratio between Austins Bridge and the Old Walls abstraction point to calculate the natural flow at Old Walls during the monitoring period.
 - 4) The natural flows on each day are shown in Table 1, along with the natural flow percentile on each day which I have determined using the natural flow duration curve shown in figure 3 of the Hydrology report [CD6].
 - 5) Chris Elliott has shown that the residual flow ranged from 53 l/s to 70 l/s over the monitoring period. He has not indicated what the residual flow was on each particular day. I have therefore used the typical residual flow of 60 l/s in my analysis.
 - 6) The Residual River Flow Assessment does not provide any information on the volume of the water abstracted during the monitoring period.

- 7) I have therefore estimated the abstraction rate by subtracting the typical residual flow (60 l/s) from the natural flow on each day. I have then calculated the abstraction rate as a percentage of the natural flow. The estimated abstraction rate and the abstraction rate as a percentage of natural flow is shown in Table 1.

	Natural flow (m ³ /s)	Natural flow percentile	Abstraction (calculated) (m ³ /s)	Abstraction as a percentage of natural flow (%)
22/06/2026	0.268	Q78	0.208	78
23/06/2026	0.255	Q80	0.195	76
24/06/2026	0.239	Q82	0.179	75
25/06/2026	0.226	Q83	0.166	73

Table 1 - showing natural flow, natural flow percentile, abstraction, and abstraction as a percentage of natural flow, in the scenario that there is a 60 l/s residual flow (the 'typical residual flow' during the monitoring period).

- 8) Table 1 shows that the natural flow during the monitoring period ranged from Q78 to Q83, and flows were decreasing over the period. In the scenario that there is a 60 l/s residual flow (the 'typical' residual flow during the monitoring period), 73% to 78% of the natural flow would have been abstracted on these days.
- 9) According to the natural flow duration curve I previously calculated for Old Walls (shown in Figure 3 of the Hydrology Report [CD6]), residual flows between 53 l/s and 70 l/s would be less than the natural Q99.9 flow for Old Walls. The natural Q99.9 flow at Old Walls is 83 l/s, so under natural conditions we would expect this flow to be exceeded 99.9% of the time. Therefore, residual flows between 53 l/s and 70 l/s are still very low, despite being higher than the existing hands-off flow (HOF) of 25 l/s.
- 10) I have also calculated the minimum residual flow possible under the EA's proposed licence which includes a Q95 HOF and 35% take (in line with table A of the EA Guidance for Run-of River Hydropower Development [CD5]). On each day in the monitoring period, I have calculated abstraction to be 35% of the difference between the natural flow and the natural Q95 (0.146 m³/s).
- 11) Figure 1 shows the natural flow (yellow line), the minimum residual flow under the EA's proposed licence (green dashed line), the typical residual flow (60 l/s) (blue line), and the minimum residual flow possible under the current licence (25 l/s) (red dashed line) over the monitoring period in June.

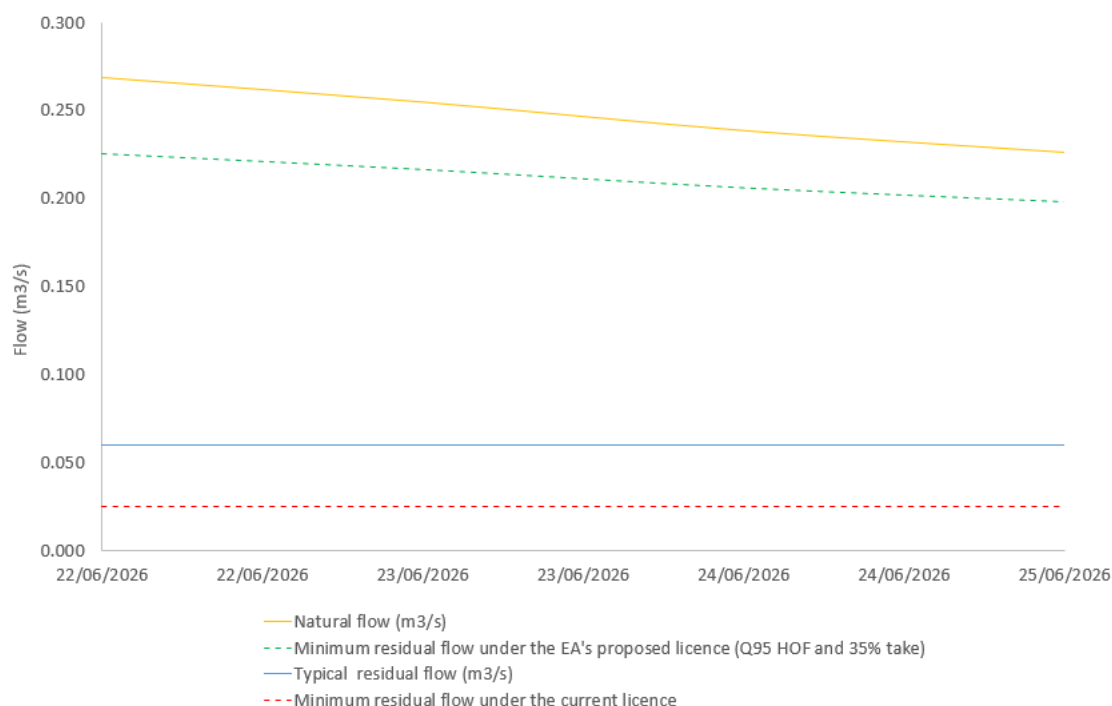


Figure 1 - showing natural flow, minimum residual flow under the EA's proposed licence, typical residual flow, and minimum residual flow under the current licence.

12) Figure 1 shows that the typical residual flow from the monitoring period in June is above the minimum residual flow permitted by the current licence, as stated by Chris Elliott. However, figure 1 also shows the significant difference between typical residual flow and the minimum residual flow which would have remained in the river on these days if the abstraction had been operating in line with the EA's proposed licence. The typical residual flow ranges from 27 to 30% of the minimum residual flow which would have remained in the river on these days if the abstraction had been operating in line with the EA's proposed licence

13) In summary:

- I agree with Chris Elliott that the typical residual flow during the monitoring period was higher than the minimum residual flow permitted by the current licence.
- However, typical residual flow during the monitoring period was much less than the minimum residual flow which would have remained in the river on these days if the abstraction had been operating in line with the EA's proposed licence. This means that the typical abstraction during the monitoring period was much greater than what is deemed sustainable abstraction under Table A of the EA Guidance for Run-of River Hydropower Development [CD5].
- Chris Elliott has not provided any evidence that relates to the hydrological modelling I have undertaken, as my modelling focusses on the maximum possible impact of the abstraction under the current licence. Therefore, the Hydrology report [CD6] remains the best available evidence for assessing the maximum possible impact of the abstraction under the current licence.

Signed:

A handwritten signature in black ink, appearing to read 'Harriet Ames', written in a cursive style.

Name: Harriet Ames

Dated 30/07/26