

Mr Matthew Burns
Reading Borough Council
Development Control
PO Box 17
Reading
Berkshire
RG1 7TD

Our ref: WA/2020/127796/01-L01
Your ref: 200358
Date: 12 May 2020

Dear Mr Burns

The installation of two archimedean screw turbines with a hut covering the generators, gearboxes and the control system (hydropower infrastructure) without complying with condition 2 (approved plans) of planning permission ref. 151715 to allow minor changes to the size of the turbines, housing structure and generator hut. Additional details are also submitted in respect of conditions 3 (public footpath), 4 (bat boxes), 5 (great crested newts licence), 7 (tree protection), 9 (materials), 10 (fencing), 11 (construction method statement), 13 (land cleaning procedures) and 15 (fish and eel pass detailed design). Footpath Next To Caversham Weir, Caversham, Reading, RG1 8BP.

Thank you for your consultation on the above planning application which we received on 2 April 2020.

The site lies within Flood Zone 3 in accordance with our flood map for planning. Flood Zone 3 is defined as having a high probability of river flooding in accordance with Table 1 'Flood risk' of the Planning Practice Guidance. The site also lies adjacent to the River Thames.

Environment Agency position

We **object** to the variation of condition 2 and from a fisheries and biodiversity perspective **we are unable** to recommend the discharge of condition 15 of planning permission 151715.

The applicant has submitted the designs that have been approved by the fish pass panel, but these are the initial designs. Although the abstraction rates have not changed, the changes to the size of the turbines and housing structure could alter the way the water is distributed.

Therefore the new designs will need to be re-submitted to the fish pass panel for approval. Therefore we cannot recommend the discharge of condition 15 for the fish and eel passes until the revised designs have been approved by the fish pass panel.

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Advice for local planning authority and applicant for fish pass

The fish pass approval is a legal document, and the drawings are a part of that document, so if the applicant doesn't build exactly what is shown on the approval documents then essentially it is not an approved pass and they cannot operate their turbine until they build what is on the approval.

While we note that there will be no change in abstraction rates, by changing the length and width of the turbine channels, will this change the velocity of the water coming out of the turbines? The revised designs show that the turbine dimensions have changed. This may not make any difference to the effectiveness of the fish pass, because it may still be intended to have the discharge from the turbines next to the jet from the fish pass (parallel, co-located and co-terminus) which is what is shown in the existing approval documents, and which is what we would consider to be good practice. If this is the case then we may simply need to issue a new fish pass approval. However, we don't know this for sure because none of the new drawings show the fish pass on them.

Another problem is the attraction jet at the downstream end of the fish pass. Good practice would be to have the velocity of the water leaving the fish pass twice that of the velocity of water leaving the turbines. We have discussed the dimensions of the fish pass entrance and turbine discharge in earlier consultations. We had a velocity coming out of the turbines of 0.6m/s and set the invert of the fish pass entrance to meet the velocity requirement.

From the new drawings, it looks like the cross sectional area of the 2 turbine exits is around 6m²; there is 6 cumecs going through this, so the average velocity has increased to 1m/s, which is similar to that leaving the fish pass. This will mean that some fish are attracted to the turbines and not the fish pass entrance. This on its own may be enough for approval to not be granted.

We therefore need to see an updated drawing of the weir, turbines and fish pass on it. This means at least an updated drawing DWG-RG-DE1-R1. In addition, we need the applicant to explain how fish will be attracted to the fish pass and not the high velocity jet coming out of the turbines.

Notes to local planning authority regarding decision

If the Local Authority are minded to grant permission against our recommendation, we request the Local Authority reconsult us for further representation. Please note we may have comments and conditions in other areas of remit following reconsultation.

In accordance with the Planning Practice Guidance (Reference ID: 7-043-20140306), please notify us by email within 2 weeks of a decision being made or application withdrawn. Please provide us with a URL of the decision notice, or an electronic copy of the decision notice or outcome.

Final Comments

Once again, thank you for contacting us. Our comments are based on our available records and the information as submitted to us.

Please quote our reference number in any future correspondence.

If you have any queries please contact me.

Yours sincerely

Miss Michelle Kidd
Planning Advisor

Direct dial 02030259712

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cc B.Spoke EWaterpower

End