Aled Williams
Waterco Limited
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By email: aled.williams@waterco.co.uk

Dyddiad/Date: 30/01/2023

Dear Mr Williams,

Proposal to abstract groundwater for the purpose of dewatering during the construction of a tunnel beneath the Dwyryd estuary.

Thank you for your pre-application enquiry, which we received on 29/11/2022.

In this letter we provide advice on the types of licence you may need from us and other environmental considerations that you will need to take into account whilst developing your proposal.

Our advice is based on the information you have provided with your pre-application enquiry. It should guide you in developing a proposal that will have a low impact on river habitats and wildlife.

Please note that if you do submit a formal application for an abstraction and/or impoundment licence, we may still need to ask you for further information once the licence determination process begins. Occasionally this may lead to a revision to some aspects of our pre-application advice.

Having assessed your pre-application enquiry we would like to make you aware of the following points:

Licence requirements

If the proposal is to abstract over 20 cubic metres of groundwater per day, then an abstraction licence will be required for this activity. As you have indicated that a portion of the water will be used for dust suppression/cooling purposes, then a full abstraction licence will be required.

Tŷ Cambria • 29 Heol Casnewydd • Caerdydd • CF24 0TP
Cambria House • 29 Newport Road • Cardiff • CF24 0TP
Croesewir gohebiaeth yn y Gymraeg a'r Saesneg
Correspondence welcomed in Welsh and English

Currently, we do not have enough information to determine how many abstraction licences will be required, given the possibility that groundwater will be abstracted from discrete aquifers. The following actions will aid us in determining how many groundwater abstraction licences are required:

Further information

We recommend the following actions before submitting your formal application:

Test pump

We recommend that a test pump (a Groundwater Investigation Consent) should be conducted to determine the degree of continuity between surface water and groundwater. You can find details of how to apply for this consent on our website at the following link: Natural Resources Wales / Prepare an application for a groundwater investigation consent

We strongly recommend employing a professional hydrogeological advisor to design and supervise your pumping test.

Hydrological Impact Appraisal

A detailed hydrogeological impact appraisal for dewatering should be undertaken in line with recommended guidance, which can be found at the following link : https://www.gov.uk/government/publications/hydrogeological-impact-appraisal-for-dewatering-abstractions.

This appraisal should be completed following the results of a licenced test pump, and submitted with your formal application.

It is recommended that the hydrogeological impact appraisal should address the full anticipated impacts to local water features, including information on the following:

- Both mineshafts are are approximately 35m from nearby surface water drains. Further information is required regarding interaction of pumped groundwater with these drains.

- The instantaneous rate of abstraction, and the rates of abstraction from each end of the tunnel

- The quality of water to be dewatered – whether it is expected to be brackish or freshwater

- The timing of the abstraction - will dewatering continue after construction, or be limited to just the construction itself?

- The location of discharge and volumes to be discharged.

Method Statement

- A full method statement should be submitted with the formal application. This method statement should include the following information:

- The time of year that the works will take place;

- The number of hours per day that dewatering will take place

- The potential impact (noise, vibration) to fish within the estuary above the tunnel during operations.

Yours sincerely,

Deri McDonagh
Water Resources Permitting Officer

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