

Form WRE: Application for a new impoundment licence, technical variation to an impoundment licence or the removal of an existing impoundment

Water Resources Act 1991, Environment Act 1995, The Water Resources (Abstraction and Impoundment) Regulations 2006, The Natural Resources Body for Wales (Functions) Order 2012

1. Application type

- New impoundment licence
- Removal of an existing impoundment
- To licence an existing impoundment
- Technical variation to an impoundment licence
- Give existing licence or pre- application reference number(s)

Complete sections 2 and 4

PPN-00172 (pre app)
WA/055/0001/003/V001
(abstraction licence)

2. Impoundment details

All information should correspond with any maps and drawings submitted with this application

2.1 Provide details of all impoundment points. For structures spanning a watercourse, provide a National Grid Reference for each bank. If necessary, continue on a separate sheet and tick here to show that you have done this.

Impoundment location name / reference	National Grid Reference for each bank, looking downstream (12 digit)	
	Left bank	Right bank
Intake	288370 262767	288371 262781

2.2 Please provide a full description of the impoundment, outlining its purpose and how it will operate. If this information is detailed in a supporting document, provide the document title or reference in the space below.

If necessary, continue on a separate sheet and tick here to show that you have done this.

ACEV_Design and Access Statement_A_080218_ARC

Hydro scheme intake comprising of intake screens and a rocky ramp.

3. Description of impoundment

3.1 Name of watercourse Afon Claerwen

3.2 Will your proposed impoundment result in a change to the wetted perimeter (downstream) or new submerged areas behind (upstream of) the impounding works?

No Yes If yes, ensure this is shown on any map or drawings submitted

3.3 Will the ponded area created by the impoundment be lined? No Yes

If yes, give details.

3.4 Give the height of the impoundment structure, from the downstream toe to crest or top of spillway (in metres above Ordnance Datum). If the proposal involves an existing impoundment, state the change in height (in millimetres).

Height of weir is 1.4m from crest to toe

3.5 What is the overflow or crest level of the impoundment (in metres above Ordnance Datum)?

Weir Crest 302 mOAD

3.6 What is the proposed capacity of the impoundment when full to spillway level (in cubic metres)?

Minimal the bed level behind the weir will be only a small amount below the weir crest

3.7 Will the proposal create a raised reservoir? No Yes

3.8 Does the proposal involve the controlled release of water to safeguard downstream flows? No Yes If yes, provide details

The weir will only abstract the flow rate being released by Claerwen dam, so that the Arban flows are maintained in the river downstream of the impoundment at all times. This will involve water level sensors installed at the dam foot. The flows will be additionally safeguarded by two notches in the weir, the main notch in the main channel has a rocky ramp and the second notch maintains a flow through the other side of the island.

3.9 Is the impounded water to be used for a subsequent purpose? No Yes
If yes, provide details (for abstractions, state the daily and annual quantities in cubic metres).

Water is abstracted, max flow rate is 3.7m³/s which means a max abstraction of 13320m³/h, 319680m³/day, and based on 365days – 116,683,200m³/year.

The abstraction is limited to matching what is released by the Claerwen Dam therefore the abstracted flows will be less than the maximums stated.

3.10 How will the impounded area be filled initially, and subsequently refilled if applicable?

The intake structures construction will by necessity include excavation of the structure footprint and this watercourse material will be both appropriate and sufficient to be used to backfill behind the concrete structure. This material will remain and no subsequent refilling will be needed, the watercourse itself via natural processes will retain a backfilled weir.

4. Fish and eel passage

4.1 Confirm the fish species present at your site.

Brown Trout

4.2 Complete the table below with full details of the measures you intend to take to safeguard these fish species.

	Intake	Outfall
Type of fish screen	Coanda Screen	Vertical Bar Screen
Screen aperture size (mm)	2mm	10mm
Screen height and width (mm)	1.2m x 14.1m	3.2m x 11.7m
Type of upstream fish passage	Rocky Ramp	
Proposed flow for fish pass (m/s)	0.040	
Type of downstream fish passage	Down rocky ramp and over the top of screens is also navigable	

5. Construction, maintenance and operation

5.1 Provide details of maintenance or activities relating to the operation of the impoundment. If necessary, continue on a separate sheet and tick here to show that you have done this.

The coanda screens are self cleaning but some cleaning with a very long handled brush (eg brush on pole) is required on occasion, the screen will be checked weekly and if necessary cleaned on this weekly check. In addition the notches will also be checked and any debris cleared.

5.2 Provide details of diversion works or removal of existing works.

The small island at the intake provides great assistance for the diversion works. Water will be diverted onto one side of the island whilst the intake structure on the other side is constructed. Then water will then be diverted over the built side whilst the other side is constructed. One tonne sand bags lined with visqueen will be used to assist in diverting the water in this manner.

6. Planning application

Have you sought advice on your planning application?

No Yes


If yes, submit a copy of the Planning Authority's response.

7. Declaration

Please see Guidance Note WRX for details of who can sign this section and note the information in that document relating to the Data Protection Act 1998.

By signing below, you are declaring that as far as you know and believe the information given in this form, on any map and in any supporting or additional information, is true.

Signed



Print name

Alec Baker

Position

Elan Estate Manager

Date

13th September 2018

Application Checklist

Please tick the following checklist items to indicate that you have included the required information. If any sections of the form are left blank and no supporting information submitted, where we have insufficient information to make a decision on your application, we will return your application to you.

Essential:

Form WRA completed, if there have been any changes since pre-application an updated Form WRA is required

Map with all impoundment points and new wetted perimeters/submerged areas clearly marked

Drawings and Design Statement



State number of continuation sheets (enter 0 if none included)

0

Where relevant:

Form WRD completed, if your proposal also requires an abstraction licence



Stage 1 photo survey (contact us for more details on this requirement)



Letter of authorisation from the applicant, allowing an agent to act as signatory



Further information requested in our pre-application response letter to you



Planning Authority response, where available



Additional supporting information - please list below: