

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

Reference number (The number you generated in form WRA). Example:  
WRNATURALRESOURCESWALES1101

WRETyleGarw2803

Are you applying for a licence for a new impoundment or an existing impoundment

a new impoundment

## Impoundment details

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

	Impoundment location name/reference	Left bank National Grid Reference	Right bank National Grid Reference
	Tyle Garw Hydro Intake	SN 93360 20427	SN 93359 20426
	-	-	-
	-	-	-

Provide details about the type of impoundment you propose to construct at the points specified above and how the works will operate. This should include a description of any existing works and how your proposal will affect the flow of inland water.

Tell us the purpose of the works. If the water is to be impounded for more than one purpose, list both the primary and secondary purpose

Hydro coanda screen intake, no impoundment really here as it installed at the foot of a waterfall up against the stone waterfall

## Description of impoundment

Name of watercourse

Nant Ystwyth

Will your proposed impoundment result in a change to the submerged area (downstream) or new submerged areas behind (upstream of) the impounding works?  
(If yes, ensure this is shown on any map or drawings submitted)

No

Will the ponded area created by the impoundment be lined?

No

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).

411.000

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

411.000

Will the proposal create a raised reservoir?

(A raised reservoir is one where water is stored at a level above the natural level of the lowest level of the surrounding area.)

No

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

0

Does the proposal involve the controlled release of water to safeguard downstream flows?

This could be the release of flood attenuation flows, reservoir compensation flows or a residual flow via a notch or orifice.

Yes

Tell us what the proposed flow at the outlet will be and how you intend to measure this. If the works involve monitoring of levels or flows, include details of this.

V notch sized to discharge 3lps

Is the impounded water to be used for a subsequent purpose?

Yes

Provide details of subsequent purpose (for abstractions, state the daily and annual quantities in cubic metres).

Hydro electricity production  
Max abstraction 32lps  
Daily 2764.8m3/s  
Annual 1009152m3/s

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

Example: by rainwater, overland flow or pumped from another source.

watercourse water naturally

## Fish and eel passage

Confirm the fish species present at your site.

none

Please confirm type of fish screen

**Intake** 1mm coanda screen

**Outfall** 25mm bar screen

Please confirm screen height and width - intake (millimetres)

**Width** 750mm

**Height** 700mm

Please confirm screen height and width - outfall (millimetres)

**Width** 240mm

**Height** 240mm

Please confirm screen aperture size (millimetres)

**Intake** 1mm

**Outfall** 25mm

Please confirm type of upstream fish/eel passage intake

none, existing large waterfall

Please confirm type of downstream fish/eel passage

none, existing large waterfall

Please confirm proposed flow for fish pass

n/a

## Construction, maintenance and operation

Provide details of maintenance or activities relating to the operation of the impoundment. Include the extent and frequency of activities. This could include the operation of scour valves or maintenance of a fish pass.

Describe any sediment management plan associated with the impoundment.

Cleaning of coanda screen, the screen is self cleaning but still the odd brush once a month will likely occur during the monthly checks. This will be done from below using a long handled (swimming pool) brush or similar.

no sediment mangement is needed with this type of intake, all sediment moves through the system over the screen or if fine enough to travel through the 1mm screen then all sediment moves through the pipeline, turbine and outfall

Do you intend to divert the flow of the inland water while you are building, changing or removing the impounding works?

Yes

How do you intend to divert the flow of the inland water while you are building, changing or removing the impounding works. Give details.

Using sandbags and 225mm twinwall pipe installed a few meters upstream of the waterfall crest, sending the water out beyond the foot of the waterfall (pipe supported with straps from above). There is a large extended pool so the water leaving the pipe will still land in the downstream pool and not create any erosion risk. Works will be carried out between June to September during a dry weather (low flows) period.

## Proposed Design of Structure

Upload design drawings and calculations here. (Spreadsheet file formats need to be: .xls, .xlsx, or .ods)

- File: TG-DWG-General Layout-C-050718-DM.pdf - [Download](#)
- File: TG-DWG-Intake-B-290623-DM.pdf - [Download](#)

Please upload your stage 1 geomorphology photosurvey. Find out more on how to complete your survey on our Geomorphology Photosurveys for Hydropower developments page

- File: TG-DWG-Hydromorphology-RevB-290623-DM.pdf - [Download](#)
- File: TG-DOC-Hydromorphology Survey Report-B-290623-DM.pdf - [Download](#)

## Other permissions

Planning permission advice received?

No

Is planning permission required?

Yes

What is the status of the planning permission?

Not Submitted

Have you applied for or do you hold a Flood Risk Activity Permit (FRAP) for the proposed works?

No

## Commercial confidentiality and national security

Are you applying for Commercial Confidentiality?

No

Have you applied to the Welsh Ministers for national security for your application?

No

## Declaration

By signing below, you are declaring that, to the best of your knowledge; the information given in this form, on any map and in any supporting or additional information; is true.

**Signed** Adam Cropper  
**Print name** ADAM CROPPER  
**Position** Applicant

Date

\* 30/06/2023

Would you like a copy of your submission?

Yes

Your email address

adam@ellergreen.com