

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

WRNATURALRESOURCESWALES0908

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
	Tir-y-Dail (River Loughor)	SN 62324 12644	SN 62309 12656
	-	-	-
	-	-	-

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

The project aims to improve fish passage beyond the weir on the River Loughor, west of Ammanford. This will provide access to 20km of suitable spawning and juvenile salmonid habitat.

The existing weir is a crude crump weir in poor condition. The weir is being undercut and scoured in multiple places with several voids present.

It is proposed that a series of five blockstone pre-barrages will provide fish easement by stepping the upstream water levels. The grid reference given above is the existing weir, the five barrages extend a further 30m downstream. The pre-barrages will each have a notch with an adherent nappe profile. There will be no change to the impounded area – all flows will be contained within the river channel. For reference see drawings 272967-ARP-CM-XX--DR-CE-1002 and 272967-ARP-CM-XX-DR-CE-1002.

The fish easement will be installed as part of a the Ammanford Flood Alleviation Scheme (FAS), for which planning permission has been sought and is under consultation, awaiting decision - ref PL/01816 (<https://carmarthenshire-pr.force.com/en/s/planning-application/a0b5J000000d4A2/pl01816>) Scheme Overview Drawing 272967-ARP-XX-XX-DR-0001 refers to multiple elements of the work that will be undertaken as part of the FAS, of which 'Cwmllwchwr Mill' includes the fish easement/pre-barrage installation at Tir-y-Dail.

Description of impoundment

Name of watercourse

River Loughor

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).

1.30m from crest of first barrage to river level at base of downstream barrage.

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

The crest levels of the passes are: 31.24m AOD, 31.04m AOD, 30.84m AOD, 30.64mAOD and 30.44m AOD.

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)?

The total volume held behind the barrages is 345m³, noting that this is contained within the river channel.

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.

No

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

No

How will the impounded area be filled initially, and subsequently refilled if applicable?
Example: by rainwater, overland flow or pumped from another source.

N/A - river.

Fish and eel passage

Confirm the fish species present at your site.

Species present include Salmon, Sea Trout, Brown Trout, Eels, Lamprey and minor species such as bullhead, minnows and stone loach.

Please confirm type of fish screen

Intake N/A

Outfall N/A

Please confirm screen height and width - intake (millimetres)

Width N/A

Height N/A

Please confirm screen height and width - outfall (millimetres)

Width N/A

Height N/A

Please confirm screen aperture size (millimetres)

Intake N/A

Outfall N/A

Please confirm type of upstream fish/eel passage intake

Five blockstone pre-barrages

Please confirm type of downstream fish/eel passage

Existing weir, five blockstone pre-barrages

Please confirm proposed flow for fish pass

95 % exceedance flow = 0.33m³/s

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.

There will be regular visits from NRW fisheries officers (every 6 months) to monitor performance of fish pass and remove debris as necessary. The pass has been designed to minimise risk of blockage. Some maintenance is anticipated in early years of pass operation to improve passage and maintain rock armour.

Sediment management will be by regular maintenance visits from NRW, who will clear out the pools as necessary. There is also opportunity for sediment to move downstream through the low flow notches, and when the pre-barrages are overtopped.

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.

To be confirmed by Contractor via their temporary works methodology and associated RAMS. Details can then be provided. Contract not yet in place.

Proposed Design of Structure

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

- File: 272967-ARP-CM-XX-DR-CE-1002.pdf - [Download](#)
- File: 272967-ARP-CM-XX-DR-CE-1012.pdf - [Download](#)
- File: 272967-ARP-XX-XX-DR-XX-0001.pdf - [Download](#)
- File: 272967-ARP-XX-XX-RP-EN-0005 Water Framework Directive Screen and Scoping.pdf - [Download](#)
- File: 272969-ARP-XX-XX-RP-XX-0008 Design Philosophy Statement_Issue2.pdf - [Download](#)
- File: Volume behind fish passages sketches.pdf - [Download](#)

Other permissions

Planning permission advice received?

No

Is planning permission required?

Yes

What is the status of the planning permission?

Submitted

Planning permission reference

PL/01816 (External: PP-09392297)

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

Would you like a copy of your submission?

Yes

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