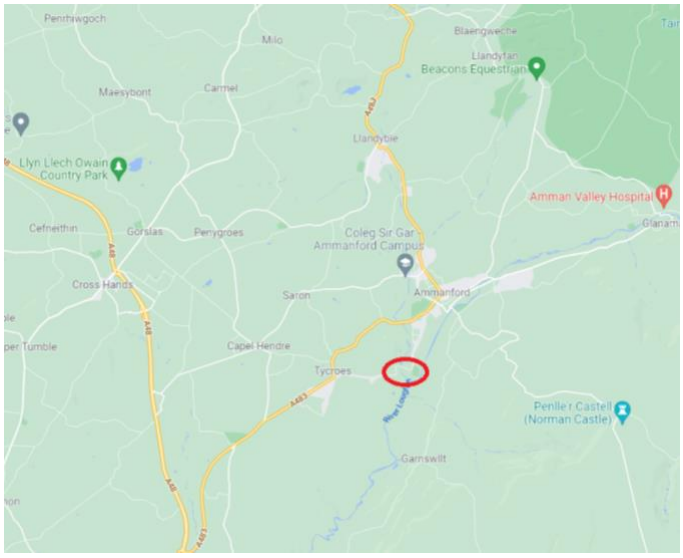
Pantyffynnon, River Loughor Weir Removal



FRAP Reference: DFR/S/2021/0237

Site Information

This document relates to the partial removal of Pantyffynnon weir on the Afon Loughor. The weir is situated on private land and permissions have been given by the landowner for work to take place.

The weir is impounding the watercourse, reducing flow diversity, restoring natural processes, as well as posing a barrier to the movement fish up and downstream within the river.

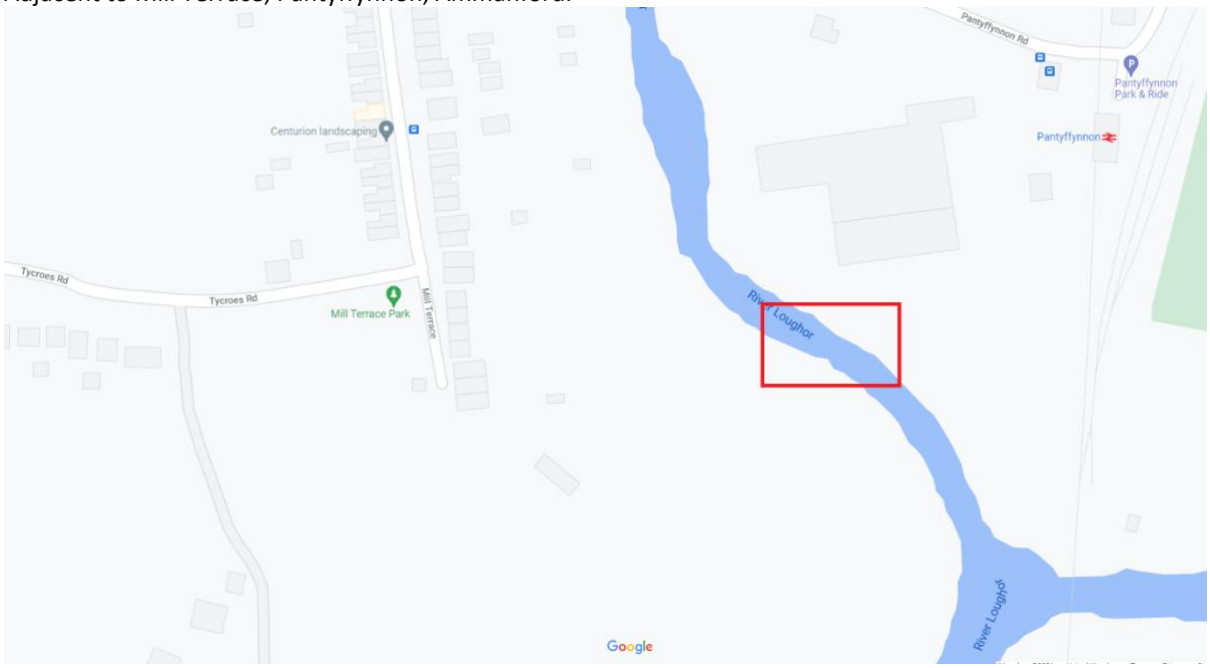
WWRT propose to remove the centre of the weir (totalling two thirds of the structure), retaining the wing walls to reduce bank erosion as well as to pinch the channel, increasing scour in the centre to clean gravels and improve their spawning quality.

Concrete won from the centre of the structure will be used to fill in existing bank erosion on the RHB behind (downstream) of the wing wall. This will accumulate sediment, vegetate and form part of the natural bankside, helping to slightly narrow the over-widened channel.

Waterbody:	River Loughor (Just above confluence with Aman)
Address:	Pantyffynnon Junction, Pantyffynnon Road, Tir-y-dail, Ammanford SA18 3NR
Grid Reference:	SN 62194 10671
What Three Words:	shorthand.scrubber.clutter (site Entrance)

Site Plan

Adjacent to Mill Terrace, Pantyffynnon, Ammanford.



Site photographs

Figure 1. Pantyffynnon weir.

Figure 2. The wing wall on the left of the photo that is to be retained.

Figure 3. The weir is constructed from concrete.

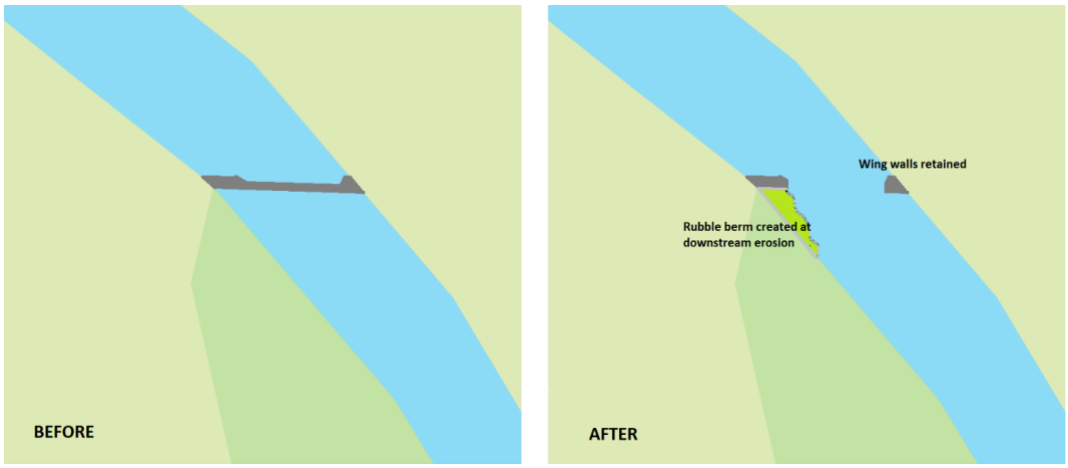
Figure 4. Habitat downstream of the weir.

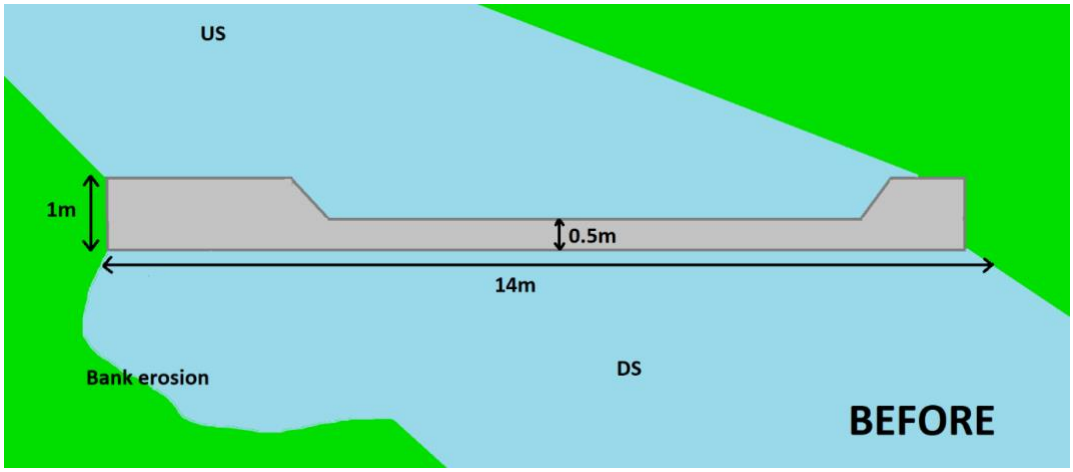
Figure 5. Photo to show the construction of the weir.

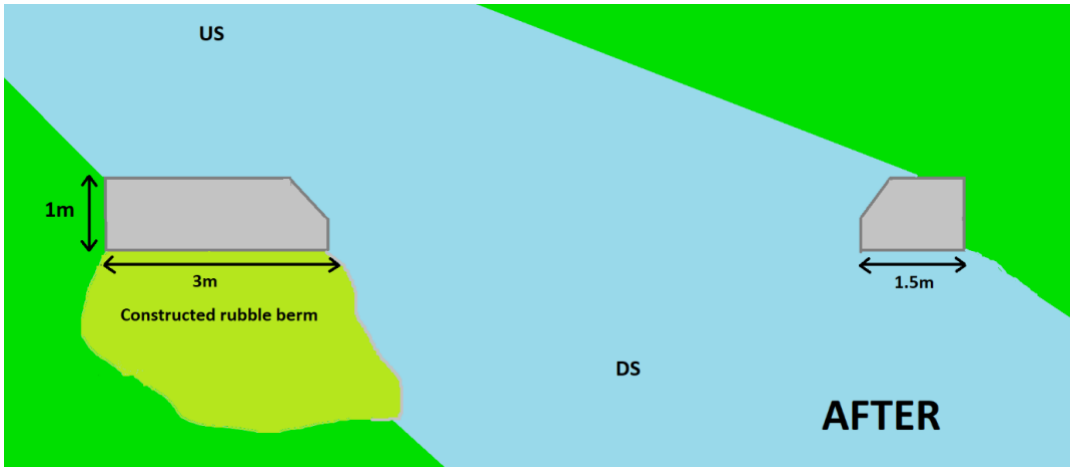
Figure 6: Weir downstream view

Proposed Designs

- Approximately two thirds of the weir structure will be removed (the centre of the structure), retaining the wing walls to aid with scouring the centre of the channel of silt (improving spawning conditions) as well as preventing bank erosion.
- Broken concrete will be used to fill in an existing area of bank erosion on the right-hand bank in front of the wing wall. It is anticipated that this, as with other similar projects, will accumulate silt, vegetate and form part of the natural bankside.







Further Specifications

1. The felling of a single tree will be required in order to gain access for these works.

2. WWRT will survey the site for signs of water vole and otter prior to works commencing, and if any are observed, works will not take place at this location.

3. Both Himalayan balsam and Japanese Knotweed are known to be present at the site. WWRT will pull any balsam present to prevent the seeds being spread into the watercourse. Japanese knotweed will be taped off to ensure it is avoided where possible, however where machine access is required, plastic damp proof membrane (DPM) with layer of geotextile cloth on top must be be used to stop seeds being transported on machine tracks. All equipment must be checked, cleaned and dried before leaving site.

4. A series of sedimats must be installed downstream of all works at strategic locations, to capture any silt released as a result of the works.

5. Machinery work will be completed from the bankside and from strategically placed riprap to prevent the need to enter the river with machines, in order to minimise damage to in-stream habitat. Works must be completed during dry weather wherever possible, in order to minimise riparian damage. (*note Afon Loughor can rise rapidly)

6. Works to be carried out before October 17th 2022 (closed season for in-river work)

Examples of similar work by WWRT:

Figure 7. Removal of Vicars Mill, on the Western Cleddau.

Figure 8. Sedimats installed within the river.

Figure 9. Sedimats installed within the river.

Figure 10. Example of riprap used to protect bankside and gain working entry to the river.