

**FRAP Reference: DFR/S/2022/0051**

### Site Information

This document relates to the removal of three weirs on the Afon Llan, Penllergare Woods. The weirs are situated on private land and permissions have been given by the landowner for work to take place. The weirs are 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 total width of two of the weirs, and partial removal of a third which is already breached. WWRT will retain 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 most downstream 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.

<b>Waterbody</b>	Afon Llan, tributary of Afon Loughor
<b>Address</b>	Penllergare Woods, Cadle Mill, Blaen-Y-Maes, Swansea
<b>NGR upstream structure</b>	SS 62466 97683
<b>NGR middle structure</b>	SS 62454 97572
<b>NGR lower structure</b>	SS 62465 97464

### Site plan

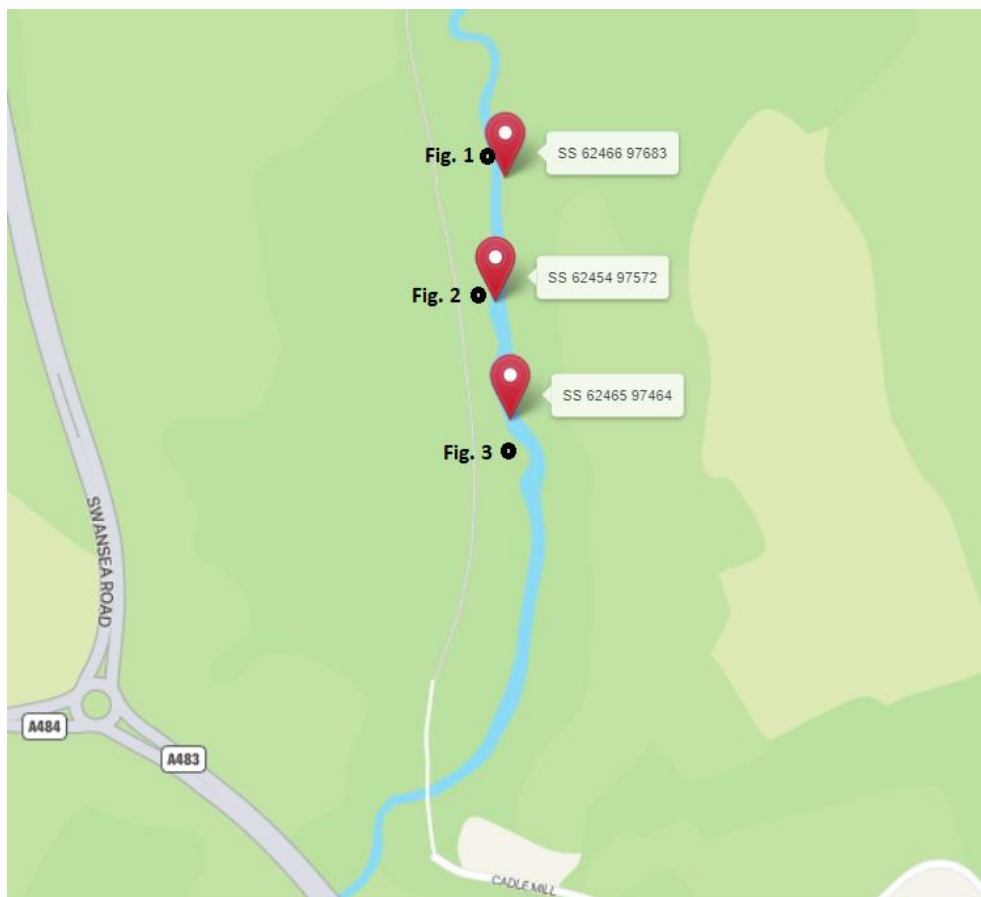


Figure 0. Location of weirs (red points) and locations of site photographs (black points).

### Site photographs



Figure 3. The most upstream weir to be removed.



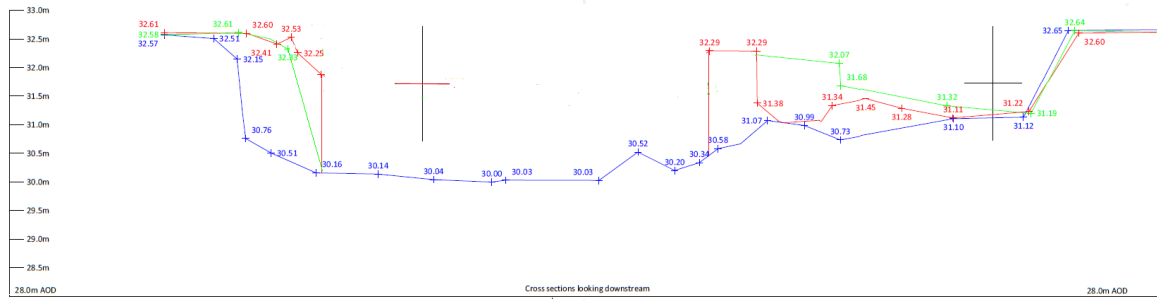
Figure 2. The third weir to be partially removed.



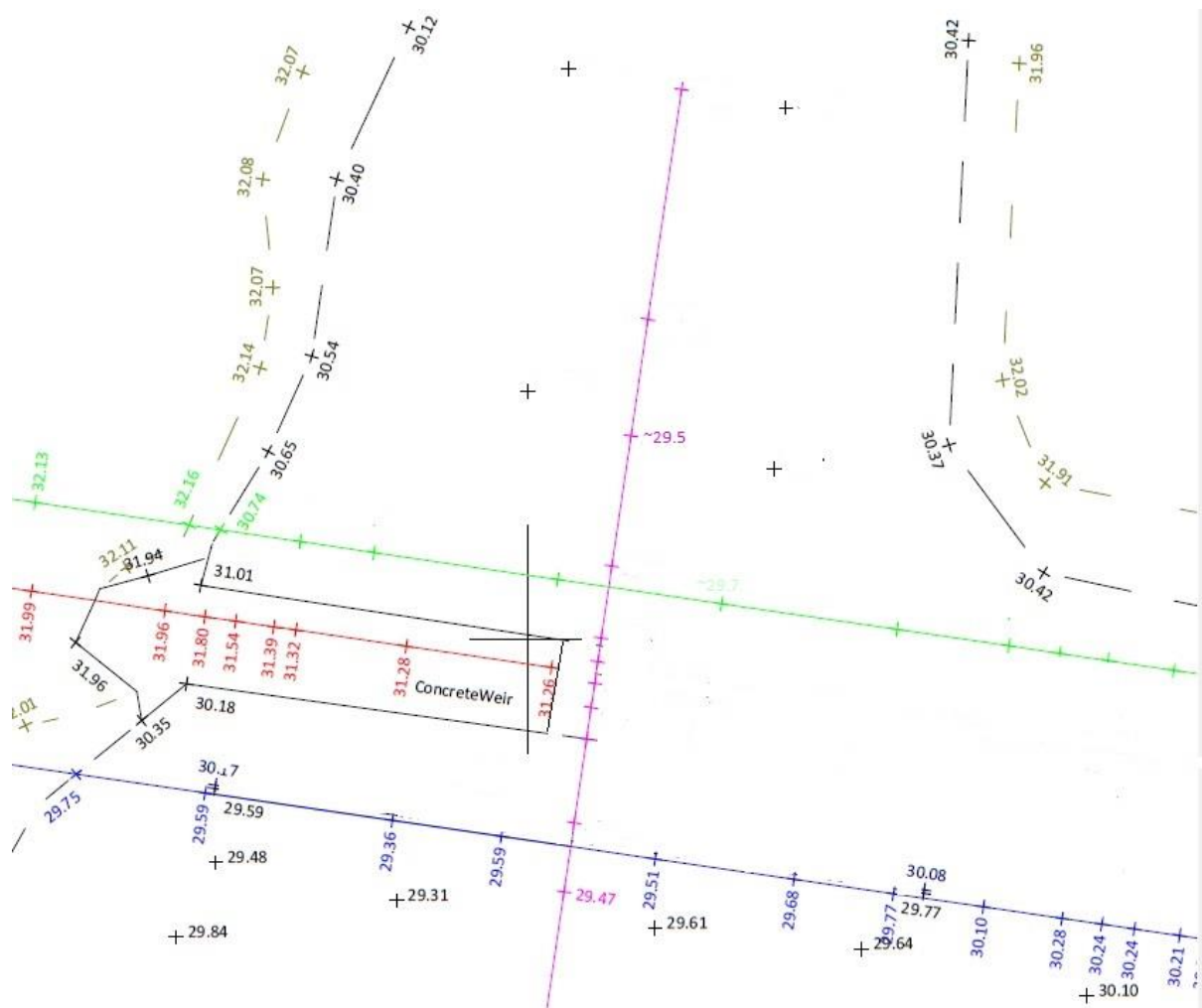
## Proposal drawings

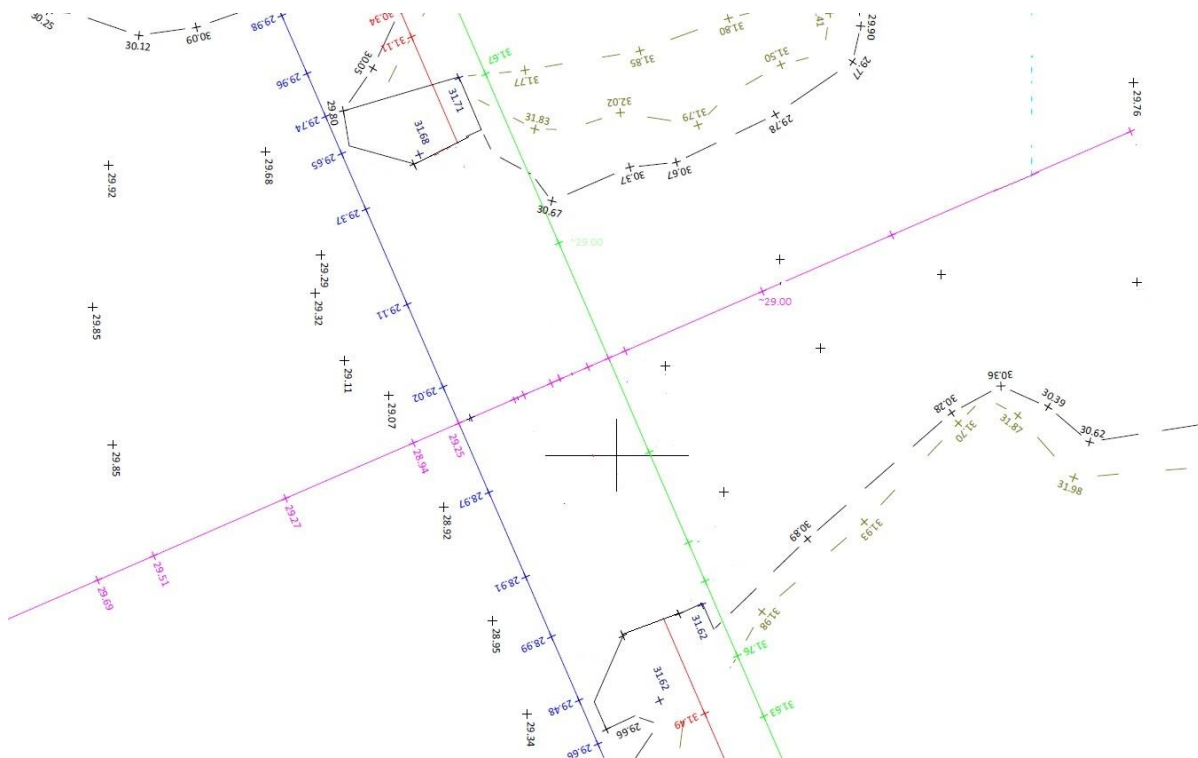
See below for drawings of proposed weir removal works:

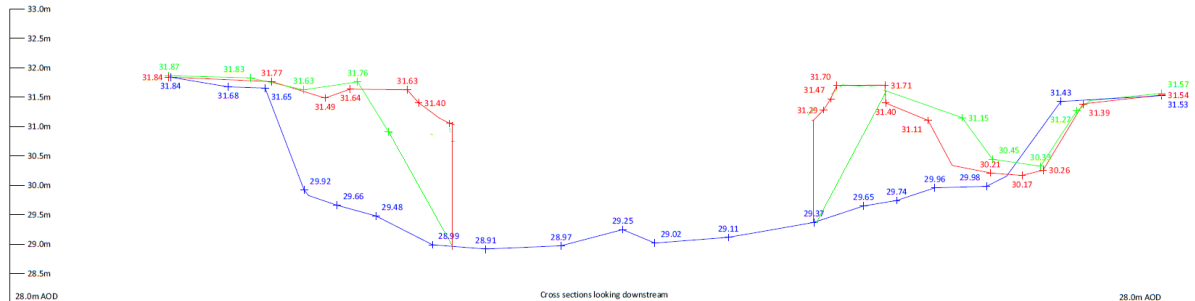
[illegible]



## SS 62454 97572 - Middle weir







## Further Specifications

1. 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.
2. 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.
3. 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 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 instream 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 2023 (closed season for in-river work)