



Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales

Four Rivers for LIFE

Peter Jones – River Restoration Officer



Co-funded by
the European Union



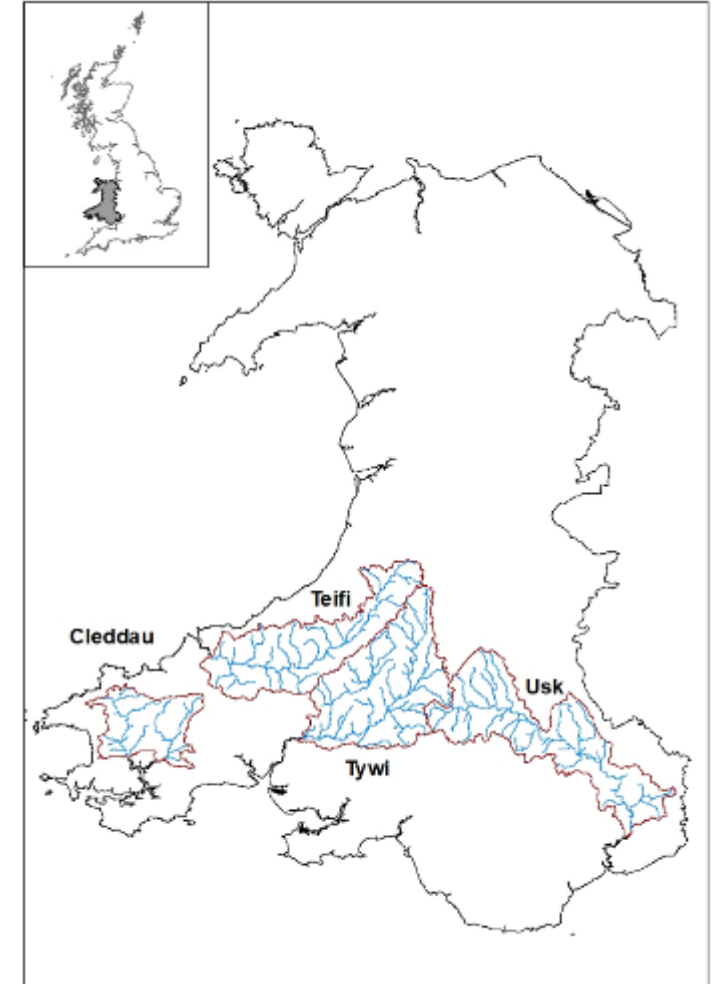
Dŵr Cymru
Welsh Water



Noddir gan
Lywodraeth Cymru
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Overview

- 5 year project until 2026 with a £9.11 million budget
- Covers 4 rivers in South Wales: the Cleddau, Teifi, Tywi and the Usk
- Fish passage, reestablish natural processes, improve habitat quality through re-meandering and in-channel habitat works.
- Work with farmers to reduce sediment and nutrient inputs
- Extensive invasive species control programme
- Share learning and demonstrate best practice river restoration



Target species

Sea, river and brook lamprey



Atlantic salmon

Bullhead

Freshwater pearl mussels

Twaite and Allis shad

Otters

Ranunculus



C1 Constraints to fish migration

12 barriers to be addressed (weir removals, fish passes, de-culverting): opening up 285km of river

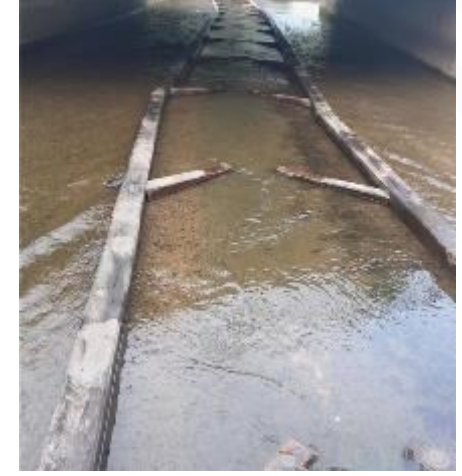
- **Usk**
 - De-culverting a bridge at Sennybridge
 - Smolt pass on Brecon weir
 - Weir removal
 - Crickhowell & Llanfoist bridge footing alterations
- **Cleddau**
 - Fish-pass upgrade at Canaston weir
 - Retrofit fish-pass at Haverfordwest weir
- **Tywi**
 - 3 weir removals
 - Pre-barrages and rock ramp



C1 Progress on barriers

Complete:

Baffles on concrete bridge apron



Culvert bridge replaced with clear-span bridge on river Senni



In progress:

- 4 schemes to be delivered in 2024.
- Developing feasibility and designs for 5 more
- Identified several other barriers for removal

C2 Restoring in-river processes

Addition of 30km of woody material and boulders. Gravel addition downstream of dam



Adding wood to a straightened channel



Previously dredged boulders going back in



C3 Re-meandering and connecting floodplains

Teifi - Cors Caron

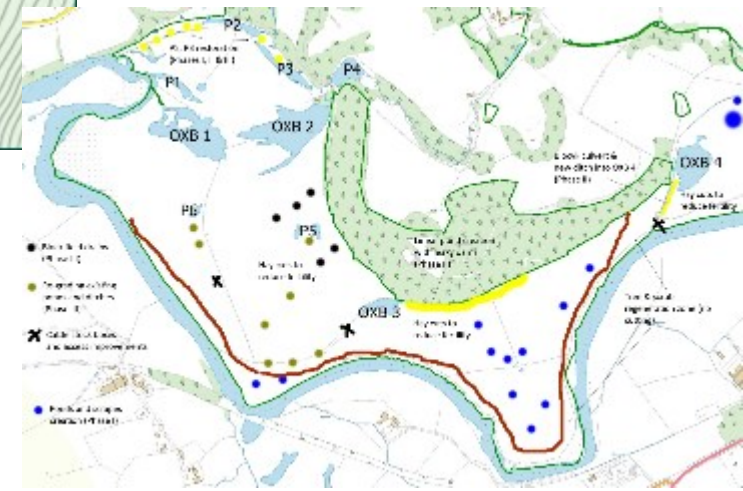
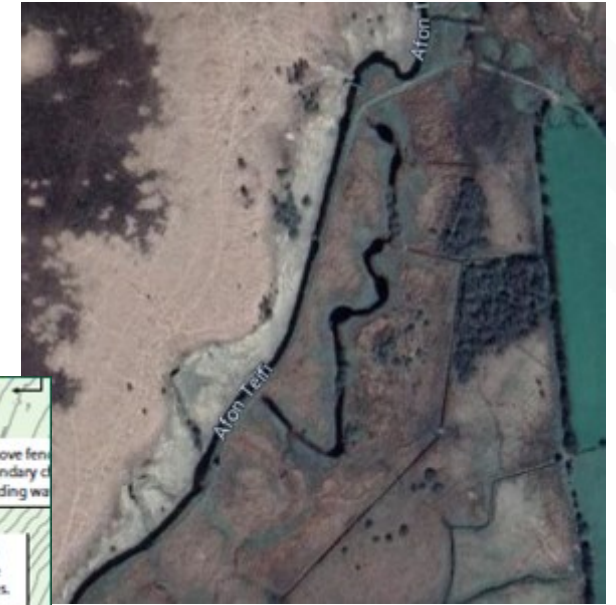
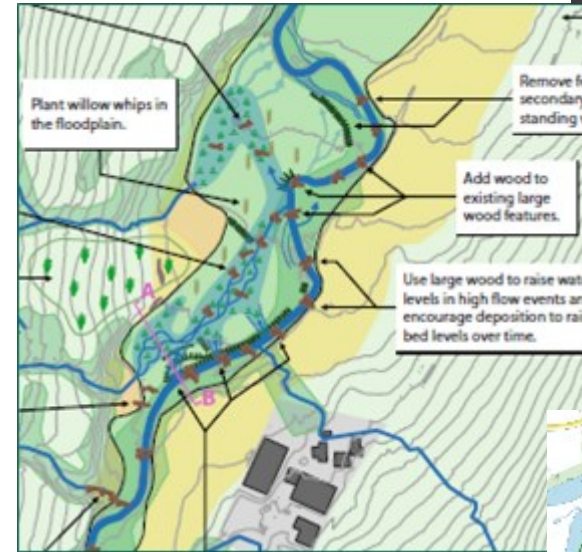
- 2km stretch of river Teifi
- Straightened & dredged over 100 years ago
- Developing a design to restore natural processes

Usk - Tarell

- Delivering a habitat augmentation scheme in 2024
- Embankment removal
- Installing 21 large wood structures

Tywi – Dinefwr

- Drain blocking
- Scrape creation
- Hay cuts to reduce nutrients



C4/C5 Riparian corridors and land management

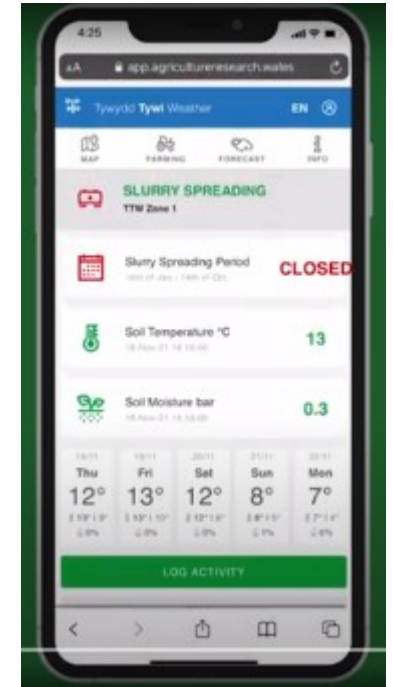
Focus on reducing nutrients and sediments, increasing riparian habitat

- 350 farms to be engaged (benefiting 35,000 ha)
- Target of 100km of riparian fencing
- Planting 50,000 native broadleaf trees
- Providing cattle crossings, clean and dirty water separation, and solar water troughs.



C4/C5 Land management works

- Visits to over 100 farms across the 4 catchments
- Interventions carried out on 8 farms with 7km of riparian fencing
- 20 farms to be worked with in coming months and 12km planned of fencing
- Planted 8,000 trees
- Guttering, yard concrete, pipework, troughs and crossing points
- 6 weather stations installed



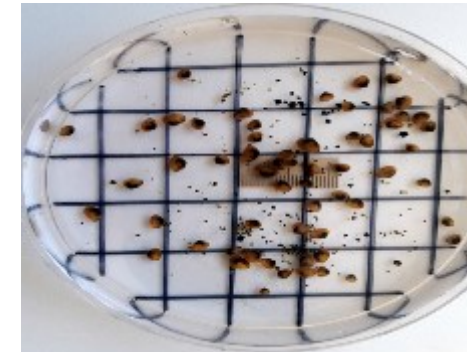
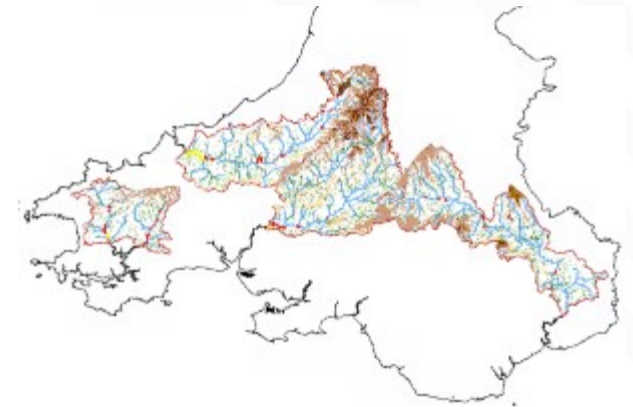
C6 Freshwater Pearl Mussel re-introduction

Re-establish viable populations of freshwater pearl mussels in South Wales

- Searching for adults in-river
- Rearing juveniles in NRW hatchery
- Creating suitable areas of habitat at 3 ark sites
- Releasing viable 1,000 mussels a year into ark sites (7 years)

Progress

- No mussels found but plans to look again next summer
- Two or three potential ark sites identified
- Baseline monitoring started at potential ark sites



C7 Control of Invasive Alien Species

Significantly reduce the impact of invasives in 8 sub-catchments targeting:

- Japanese knotweed
- Giant hogweed
- American skunk cabbage
- Himalayan balsam (Control and rust fungus trials)



Aim is to bring down the upper limit of invasives

- Mapping and contractor-led work completed in 2022 and 2023 (20 contracts)
- Rust fungus trial – seeds have been collected and tested at 7 sites
- Volunteers groups to tackle local catchments



Challenges

Paperwork – consents (HRAs, FRAPs, WFD assessments, etc)

Licenses (permissions) for works on third party land

Procurement rules

Increasing costs and budget pressures

Landowner permissions

Public perceptions of ‘natural’ rivers





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Thank you

