



Living Waters for Wales Update Autumn 2018

Welcome to the eighth Water Framework Directive (WFD) update from Natural Resources Wales (NRW), filled with examples of projects which are delivering a better water environment for the people, environment and businesses of Wales. The newsletter contains some examples of how our work and the work of others are contributing to the Sustainable Management of Natural Resources (SMNR). Be inspired and tell us your story. Contact **Jill Brown**

WFD sets environmental targets requiring all inland and coastal waters to achieve Good Ecological Status (GES). GES is measured by considering both the quality of the environment (plant and animal communities) and the pressures from human activities.

Physical modifications is one of the top issues causing failure to meet GES. This newsletter focuses on some of the work that is happening to solve this issue.

Along the rivers and streams of Wales, there are many structures that include human modifications such as weirs, bridge foundations and culverts which act as barriers to migratory fish. These structures prevent or hinder fish from swimming upstream to spawn. They can also impact on biodiversity and create flooding, sedimentation and erosion issues.

Better fish populations are an indicator of a healthy water. Under the requirements of the

Wellbeing of Future Generations (Wales) Act 2015, meeting good status is one of the Well-being indicators. The [Wellbeing of Future Generations \(Wales\) Act 2015](#) is legislation requiring public bodies to put long-term sustainability at the forefront of their thinking and work with each other along with other relevant organisations (such as third sector groups) and the public to prevent and tackle problems. WFD already follows many of the principles of the Sustainable Management of Natural Resources (SMNR).

Below are some examples of some of the work that is happening to solve this issue.

Bridging the Habitat Restoration Gap

Towards the end of C.S. Lewis's children's book Prince Caspian, the river god exhorts Aslan to 'loose my chains' by destroying a bridge and reinstating a ford. In fact, fords are often more environmentally harmful than bridges. Fords are river crossings built at the level of the river bed and their presence can:

- lead to the loss or damage of plants, animals and their habitats;
- create a barrier to the movement of fish and other wildlife;
- prevent sediment and woody debris being moved downstream
- prevent natural river movement;
- increase flood risk.

The removal of one ford and its replacement with a clear span bridge in a Special Area of Conservation river near Dolgellau was particularly important, because its presence threatened the long-term persistence of a



population of the critically endangered freshwater pearl mussel, *Margaritifera margaritifera*. Pearl mussels are the subject of an NRW Species Recovery Strategy and are an important species in undamaged rivers. Sadly, Wales has lost almost all of its pearl mussel populations due to a combination of geomorphological modifications and agricultural intensification.

At the pre-application stage, the environmental impact that the existing river crossing was having on the environment was highlighted. The geomorphological issues caused from physical modifications such as fords break up the natural movement of the river. Snowdonia National Park and Gwynedd County Council agreed to remove the ford, in order to restore the ecological connectivity in the river.

A key issue in the river is a lack of gravels for salmonid spawning and juvenile pearl mussel nursery habitat. These issues were addressed by placing boulders in the river and placing gravels behind them. Over time, it is expected that the boulders will trap more gravel and eventually create a riffle area, further improving conditions. This work is just one of a package of measures intended to improve the status of pearl mussels across Wales.

Improving channel geomorphology is a key activity for the Water Framework and Habitats Directives and helps to meet their requirements. It can deliver a wide range of multi benefits that include:

- Indirect benefits to plants and other aquatic organisms by naturalising in-channel habitats and improving flow and substrate variability
- Improvements to flow patterns and a reduction in impoundment
- Improvements in the transport of sediment and a reduction in sediment accumulation upstream of the structure

- Restoration of natural processes, including erosion and deposition
- Improvements to the aesthetic value of the watercourse and improvements to its recreational value.
- Direct benefits to salmonids, eels, coarse fish and other aquatic organisms by allowing free movement of populations and individuals within the water body and improvements to flow and habitat variability.
- A general improvement in environmental resilience, for example by reducing sensitivity to other pressures such as nutrients.

In Wales, the Water Framework Directive now sits in a wider context under the Environment (Wales) Act 2016 and the Well-being of Future Generations (Wales) Act 2015. WFD helps to deliver many of the Sustainable Management of Natural Resources principles of working with others, delivering multi benefits and adaptive management.

This work will help to meet WFD good status and is one of the Well being indicators under the Well-being of Future Generations Act and Environment (Wales) Act 2015. For more information on the management, maintenance and legal responsibilities associated with river barriers, download the industry guidance for free at

https://www.ciria.org/Resources/Free_publications/River_weirs.aspx



Before and after pictures, photo credit NRW



“Salmon given a helping hand to the top of the Taff”

The upper reaches of the River Taff at Merthyr Vale are failing to achieve good ecological status under the WFD because of declining fish populations, but? is it just fish?

Many fish passage improvements have taken place along the River Taff and tributaries in recent years and the removal of the weir at Merthyr Vale sees the removal of the last significant barrier on the river to fish migration

Removal of the weir allows better access to this stretch of the river and will help to boost the return of salmon and sewin to the upper reaches of the River Taff. Removing the weir will improve access to over 10 km of good quality spawning habitat on the Taff Fechan and Fawr upstream of Merthyr Vale.

An important part of this work was to ensure that flood risk is not increased elsewhere. This will prevent erosion of the banks that could potentially undermine the flood defences.

The weir removal will also deliver multiple benefits to the water environment that include: habitat improvements with water level reduction to create more pools and riffles.

- enhanced habits for invertebrates and wildlife such as otters.
- Better access to spawning and nursery areas for salmon and sewin.
- Better fishing opportunities for the local community.

The removal of the weir will help to restore the health of the river to good ecological WFD status. There are several community enhancement projects being developed as a result of the weir removal.

A healthy river is good for the community, anglers, tourism and the economy. In addition, it fulfils our contribution to the well-being goal to manage our water sustainably. Before and after pictures of the weir removal below (photo credits by Michael Clyde, NRW). For more information, contact [Michael Clyde](#)





Before



After (Photo credits by Michael Clyde).

For more information, contact [Michael Clyde](#)

Get the latest updates here:
www.naturalresources.wales/merthyrvale

Update on Taclo'r Tywi

[See last newsletter for Taclo'r Tywi article](#)

This year, we have continued to work with Carmarthenshire Fishermen's Federation (CFF) by removing Himalayan Balsam at the upper reaches of the Tywi catchment. NRW officers and CFF members have already spent two volunteer days clearing Himalayan Balsam in one area of the Bran near Llandovery. This was done by a mixture of pulling and strimming techniques.

We need your help in recording invasive non-native and other species.

We need your help in recording invasive non-native and other species! Using the iRecord App or the newly launched [LERC Wales App](#) from the Wales Local Environmental Record Centres (LERC), makes recording sightings by phone very easy. Both Apps are free to download. Submitting records using either App will contribute to a better understanding of where species are in Wales, how they spread and their impact. Records will be available to view on the National Biodiversity Network Atlas Wales.

For more information on the Taclo'r Tywi initiative contact nrmcarmarthenshire@cyfoethnaturiolcymru.gov.uk

Wales Land Management Forum

The Wales Land Management Forum (WLMF) sub-group on Agricultural Pollution was established in January 2017 and was formed to focus on tackling agricultural pollution in Wales. The membership includes representation from NFU Cymru, Farmers' Union of Wales, Country Land and Business Association, Dŵr Cymru Welsh Water, the Tenant Farmers Association Cymru, Hybu Cig Cymru, AHDB Dairy, the Carmarthenshire Fishermen's Federation, NRW and the Welsh Government Environment & Rural Affairs Department as well as Water Branch and Farming Connect.

Lying at the heart of the work has been the development of a mutual and evidence-based understanding of the root causes of agricultural pollution problems, whilst pursuing a range of approaches to tackle the issue and drive improvements. Whilst agriculture is not the only cause of water pollution the sub-group recognises that we all need to take responsibility for tackling the problems currently being caused by some farming practices.

In April 2018, an interim report to the Cabinet



Secretary for Energy, Planning and Rural Affairs provided an update on the work of the WLMF sub-group. The report identified five main work areas:

- A robust regulatory regime
- Developing a voluntary, farmer-led approach to nutrient management
- Ensuring better advice and guidance is provided and can be taken up by farmers
- Improving the range of investment opportunities
- Identifying and promoting innovation

Within these work areas forty-five initial recommendations were identified. These range from the strategic to the practical, which will require significant further work, resources and commitment from all the partners involved. The full report can be found [here](#).

Stemming from the work of the sub-group, some recent activities include:

- NFU Cymru has been successful in bidding for NRW partnership funding which will be used to explore the development of a voluntary approach to nutrient management;
- Farming Connect are organising on-farm events and helping farmers to reduce the risk of pollution within a number of targeted catchments identified by the WLMF sub-group;
- NRW have recruited eight new agricultural officers to deliver pre-regulatory audits on dairy farms across Wales. Where issues are identified, these will normally be referred to Farming Connect so that more detailed specialist advice can be provided.

Zoe Henderson, Chairperson to the WLMF sub-group, said: *“It is my belief that the WLMF sub-group on agricultural pollution is truly pioneering and is working in a new way to address the very real and urgent issue of agricultural pollution. I*

believe that the current climate of change around Brexit and the focus on sustainable productive farming will give the impetus to truly deliver a ‘Brand Wales’ that we can all be proud of.”

The WLMF sub-group remains committed to taking forward the five work areas we have identified, working with farmers to eradicate pollution and ensuring that Wales is renowned for the continuing professional development of its farmers across all sectors as well as the quality of its agricultural produce. For more information, contact

WLMF.subgroup@cyfoethnaturiolcymru.gov.uk

Salmon & Trout Conservation’s Riverfly Census

The Salmon & Trout Conservation carried out a three-year survey using species-level invertebrate analysis, they are currently analysing results from the 12 rivers that kicked the survey off in 2015.

Water insects live for months, sometimes years, below the surface in their nymph stages. Because different insects have different tolerances to pollution, the presence or absence of certain species is a simple but effective way of finding out what pressures a river might be experiencing.

The Riverfly Census method was so well received that in 2016, three Welsh rivers (Usk, Clwyd and Eastern Cleddau) were added to the initial 12 English rivers: This year, the Salmon & Trout Conservation are collecting the final samples to complete the three-year picture and will be analysing the Welsh results early in 2019.

For more information, contact the Salmon & Trout Conservation.

<https://www.salmon-trout.org/2018/05/29/riverfly-census-wales/>



Summary of progress for the River Basin Management Plans 2015-2021

The latest River Basin Management Plans are available here

<https://naturalresources.wales/evidence-and-data/research-and-reports/water-reports/river-basin-management-plans-published/?lang=en>

Working Together Consultation

The consultation was published on 22 June 2018.

<https://naturalresources.wales/guidance-and-advice/environmental-topics/consultations/our-own-consultations/?lang=en>

This consultation is the first consultation leading up to the publication of the reviewed and updated River Basin Management Plans. We would welcome your views on how you would like to get involved in the refresh and update of the plans for the period 2021-2027.

The consultation closes on 22 December 2018. Details of how to respond by email or post are on our website.

The next statutory consultation will be in 2019 to consult on the Significant Water Management Issues. This consultation is prior to developing the river basin management plans for the third cycle.

Programme of Measures

Work is progressing to make the national and local measures operational by December 2018. There are 96 national measures and 125 local measures. A full review is due in December 2018 for the Water Information System for Europe (WISE) return.

In addition to the measures, other local projects and initiatives are making a contribution to protect and improve our environment. This includes work through the WFD Implementation Fund, £140K has been made available by Welsh Government to enable us to do more within our catchments.

Further details on this work will be shared in the next Newsletter.

Investigations

We continue our investigations work of water bodies to prevent deterioration. The investigations programme must be completed by December 2019.

2018 Interim WFD Classification for Freshwater Update

This is an update of the 2015 classification and is named the WFD Cycle 2 Interim Classification 2018. The freshwater data has been released with the marine data expected in the winter. It enables NRW to review progress mid-point in the WFD cycle.

The classification for groundwater is only updated every 6 years so is not included in the interim classification.

NRW updates the classification every 3 years. The real test of change in status needs to be made at the end of the 6-yearly planning cycle in 2021. We need your continued commitment to deliver the solutions needed to achieve greater and sustained improvements to our water environment in Wales.

The data is available on Water Watch Wales, together with a frequently asked questions document.

<http://waterwatchwales.naturalresourceswales.gov.uk/en/>

Wales Water Management Group

The Wales Water Management Group will replace the Liaison Panels. The group will be chaired by Ruth Jenkins, Head of Natural Resources Management with the aim of being replaced by a NRW Board member. Further details of the group will be provided when available.



Area Statement update

Developing Area Statements is part of the way that Wales is trying to approach sustainability differently, to ensure that the environment can continue to provide the environmental services and benefits we all rely on.

A requirement of the Environment Act (Wales) 2016, NRW is responsible for leading the development of Area Statements. We must involve partners and stakeholder as part of the process, as the documents are a way of gathering evidence on natural resources and ecosystems in an area that can be used by everyone for making decisions on how to manage them sustainably. This includes:

- * the natural resources in the area;
- * the ecosystems services and benefits they currently provide;
- * the priorities, risks and opportunities for the sustainable management of natural resources which need to be addressed;
- * state how we propose to address the priorities, risks and opportunities, and how we propose to apply the principles of sustainable management of natural resources in doing so;
- * specify the public bodies which we consider may assist in addressing the priorities, risks and opportunities.

The process of developing Area Statements will bring all natural resource management issues into one place – going further than River Basin Management plans. Developing this resource will require us all to work together in collaboration and incorporate targets to improve the quality of our water environment. The information can be continually updated, and NRW must take all reasonable steps to implement area statements and encourage others to take such steps.

The involvement of individuals, businesses, the third sector and other public bodies is key to the success of this process. The greater the input from you the more comprehensive the final Area Statements will be.

Initially we would like to know what you think is important to build a picture of each area and what evidence you can contribute. NRW are producing 'area profiles' as a starting point to this conversation.

Area profiles will be shared with all interested parties for them to verify and identify gaps and feed in information. From here, your input will help to shape the development process and the resulting Area Statement.

To be part of this process, please visit our website at:

<http://www.naturalresourceswales.gov.uk/splash>

[?orig=%2fabout-us%2farea-statements%2f%3flang%3den%3b&lang=cy](http://www.naturalresourceswales.gov.uk/splash?orig=%2fabout-us%2farea-statements%2f%3flang%3den%3b&lang=cy)

For more information on the RBMPs: contact: Ceri Jones River Basin Programme Manager.

Visit the Natural Resources Wales website for more information.

<http://naturalresourceswales.gov.uk/splash?orig=/>

Water Watch Wales includes data and information on RBMP documents for the second cycle, water body objectives and measures updates 2017 and the 2018 Cycle 2 Interim Classification.

<http://waterwatchwales.naturalresourceswales.gov.uk/en/>

Help your local environment by reporting pollution incidents, illegal waste tipping, poaching, fish in distress, or danger to the natural environment to



Natural Resources Wales via the 24-hour free phone number 0300 065 3000 (press 1 for 24-hour service).

We're looking to promote stories of delivering improvements to the water environment. Make us aware of any activities that you or your organisation is doing to help improve Wales' waters. If you want to contribute to or receive future newsletters - contact [Jill Brown](#)

