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Dr Guy Mawle

By email only: guy.mawle@gmail.com

Date: 02 December 2021

Dear Dr Mawle,

Thank you for your letter dated 15th November 2021 and your report “*The State of the River Usk – a dying River?”.* The report is uncomfortable reading for those of us that care passionately about our rivers, but I thank you for the time and effort that you have put into its collation.

As your report states, the water environment is under significant pressure and Natural Resources Wales (NRW) has recorded breaches of water quality standards over several years. I will respond to the points that you have raised in your report:

## Special Areas of Conservation (SAC) reporting

The last SAC condition assessments were officially published in 2013.

In 2020 we undertook an exercise to review our phosphorus data against revised tighter targets in the 9 SAC rivers in Wales. As you have stated we identified extensive phosphorus failures on the Usk, with 88% of the water bodies failing to meet their phosphorus targets when we published our [Compliance Assessment of Welsh SACs against phosphorus targets](https://cdn.cyfoethnaturiol.cymru/media/693025/compliance-assessment-of-welsh-sacs-against-phosphorus-targets-final-v10.pdf?mode=pad&rnd=132557227300000000).

We are now in the process of assessing against all the other water quality attributes, also used in the condition assessment:

* 10%ile DO (% saturation)
* Mean BOD (mg L-1)
* 90%ile total ammonia (NH3-N, mg L-1)
* 0.25 95%ile un-ionised ammonia (NH3-N, mg L-1)
* Reactive phosphorus
* Trophic diatom index
* Acid Neutralising Capacity
* pH

The results of this water quality assessment are not available yet but will be published shortly.

In 2020, NRW also carried out an exercise to produce indicative condition assessments for protected sites features, the results of which can be found at

[Natural Resources Wales / Protected sites baseline assessment 2020](https://naturalresources.wales/evidence-and-data/research-and-reports/protected-sites-baseline-assessment-2020/?lang=en).

We are also in the process of reviewing the Core Management Plan. This review will update the water quality standards, in line with the UKTAG guidance issued in 2016. The revised plan will be published soon and we plan a more comprehensive review in due course.

## Monitoring

NRW’s monitoring under Habitats Directive and Water Framework Directive (WFD) is directed towards assessment against targets rather than detection of change. Monitoring data is collected to assess whether sample sites are meeting the threshold for a particular attribute. An increase in spatial and temporal intensity of sampling would be required to provide, with confidence, inferences about trends in water quality and NRW does not currently have the resources to undertake this monitoring activity in addition to the statutory monitoring programmes.

We are currently undertaking a review of our freshwater monitoring programme to investigate the most effective methods and use of our resources to meet multiple drivers.

There is also a review of our SAC river monitoring underway as part of our SAC rivers water quality project. This year we have prioritised a Ranunculus survey on the lower Usk, using a drone to gather the evidence.

## Permitting, Sewage discharges and Combined Storm Overflows (CSOs)

The recently published phosphate compliance report gives us the evidence needed to ensure that both Environmental Permits issued by NRW (allowing discharges under the Environmental Permitting Regulations (EPR)) and any planning permissions issued by the Local Planning Authorities for new developments, achieve phosphate neutrality.

NRW seeks to reduce the burden of nutrients entering our rivers and in so doing we need to work with a range of sectors across the catchments.  We are working with Welsh Government, local planning authorities, Dŵr Cymru/Welsh Water (DCWW), the farming sector and other partners to develop solutions that will achieve this.  In the short term we have also advised planning authorities to carefully review all proposals for new developments to prevent any increase in nutrient discharges from private and mains sewerage systems or agriculture.  We have issued guidance to all local planning authorities in Wales to facilitate them undertaking assessments of the impact of proposed developments on protected sites (see [NRW's advice to planning authorities for planning applications affecting phosphorus sensitive river SACs](https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/our-role-in-planning-and-development/advice-to-planning-authorities-for-planning-applications-affecting-phosphorus-sensitive-river-special-areas-of-conservation/?lang=en)).  We are also working with DCWW to model the sources of phosphate in our SAC catchments so that our actions and funding can better targeted where they will achieve the most environment improvements.

For existing permits, the tightening of phosphate limits for SAC rivers means that some of the sites that would have been previously screened out during the initial screening stage of the Habitats Regulations Assessment (HRA) process may now need to be reviewed.  We will be assessing this as part of the water company improvement programme, referred to as the Asset Management Programme (AMP). We will be focussing on sewage treatment works and continuous discharges that have the potential to have a greater impact on the integrity of the SAC.

We regulate over 2,500 storm overflows in Wales and have identified almost 200 across Wales that are currently unpermitted. Our immediate priority is ensuring that these unpermitted discharges are brought into regulatory control. Currently, there is a presumption against permitting new storm overflows, unless as part of a wider scheme delivering a net improvement in water quality.

In order to better monitor CSO discharges, we have required the water companies in Wales to install Event and Duration Monitors (EDMs) on all permitted CSOs. These have now all been installed, giving us consistent and reliable data to show how often the discharges happen and for how long.

Water Company investment programmes (AMPs) are planned on a rolling five-year basis. These AMPs are jointly agreed between NRW, the Water Companies and the Water Services Regulation Authority (OFWAT) to prioritise and maximise the environmental improvements. Frustratingly, this process often leaves many schemes unfunded despite there being environmental drivers for inclusion. Increased funding for AMP programmes is something that NRW has long asked for, however the protection of customer’s bills is a significant limiting factor in this process, and this is under the control of OFWAT.

DCWW currently have 605 investigations in their AMP7 (2020-2025) and AMP8 (2025-2030) programmes, based on assets that spill greater than 60 times a year. This includes three schemes within the Usk SAC falling under the AMP7 programme. Further consideration is given to assets which spill within failing water bodies as part of the WFD investigations. In many cases, these investigations will lead to improvement schemes that will reduce the number of spills from storm overflows. As future EDM data returns are analysed, the number of investigations is expected to rise.

In addition, we are currently working closely with DCWW and Monmouthshire County Council to explore the potential of investing in phosphate removal at key DCWW wastewater treatment works in Monmouthshire.

## Sedimentation

Your report makes many references to the impact of suspended solids on the freshwater environment. As you are aware the WFD does not set targets for suspended solids, this means we do not report against this element and therefore monitoring is not currently widespread.

There is a fine sediment target in the [Common Standards Monitoring guidance for Rivers](https://hub.jncc.gov.uk/assets/1b15dd18-48e3-4479-a168-79789216bc3d) which uses data from River Habitat Surveys (RHS). The target is ‘no unnaturally high levels of siltation’ but there are three main issues with this:

* It’s not yet in the draft CMP for the Usk as we are currently only updating the water quality attributes.
* We do use this target in condition assessment but our RHS data is very sparse.
* The siltation data collected in RHS is intended to give an indication rather than detailed data.

However, we are aware of the impact that fine sediment has on the freshwater environment and many of the actions that we propose in the future are designed to tackle and reduce this. We are also hoping to increase the collection of fine sediment data plus there is significant additional monitoring as part of the 4 Rivers 4 Life project (see below).

## Agriculture

We recognise that current legislation addressing diffuse agricultural pollution in Wales is piecemeal and that improvements are required.  Welsh Government (WG) has recently introduced the Water Resources (Control of Agricultural Pollution) (Wales) Regulations (2020) which provide Wales-wide controls on nitrates in the environment.  NRW has the powers to enforce the new regulations but it will require a large increase in regulatory effort to help make them effective.  We are still in discussions with WG on the resource implications of these new regulations.

As well as formal regulations we continue to explore a range of additional approaches. The work of the Wales Land Management Forum includes working with partners, including the Farming Union of Wales and National Farming Union Cymru to share information, identify common interests and work together in a collaborative way on strategic land management issues.

We have considered the causes of pollution and the approaches available to reduce pollution levels.  The outcome of this is the development of 5 principles:

* Regulation (which is broader and simpler);
* Innovation;
* Voluntary assurance;
* Advice, guidance, knowledge, skills & experience development; and
* Investment.

It is only through a combination of these principles that we can expect reduction in risk of all forms of agricultural pollution, and thereby protection of our environment, whilst at the same time supporting farming to be a sustainable and thriving industry for the future. This approach has been welcomed by the farming sector and environment groups alike.

That said, we will not hesitate to take enforcement action whenever we can demonstrate that farmers or anyone else have caused pollution incidents. We take a range of enforcement actions in around 70% of substantiated agricultural pollution incidents every year. This includes advice and guidance, warning letters, notices to improve farm facilities, formal cautions and prosecutions.

All of our enforcement is considered in line with our [Enforcement and Prosecution Policy](https://naturalresources.wales/about-us/what-we-do/how-we-regulate-you/our-regulatory-responsibilities/regulatory-responsibilities/?lang=en), and we publish a regulatory report which is available here [Natural Resources Wales / Our regulatory responsibilities](https://naturalresources.wales/about-us/what-we-do/how-we-regulate-you/our-regulatory-responsibilities/?lang=en).

## The Future

Although it is not meeting all of its targets, the Usk remains a key site for the conservation of freshwater biodiversity in Wales. We have prioritised the Usk for action, to achieve both water quality improvements and improvements to other SAC features.  There are several relevant areas of work:

* The **4Rivers4LIFE** EU LIFE (£9.1m) project which will address four South Wales rivers, including the Usk.  The aim is to carry out a range of measures to address diffuse pollution as well as improving habitat quality within the rivers.  Actions on the Usk include:
* **In River:**
	+ - Gravel introduction on the Grwyne Fawr
		- Habitat restoration and freshwater pearl mussel re-introduction along one tributary
* **River corridor/floodplain improvement:**
	+ - 24km of fencing to create buffers along rivers
		- Re-meandering or floodplain reconnection of three sections of river
* **Fish passage:**
	+ - Addressing five barriers to fish migration including Crickhowell and Llanfoist bridge footings which are barriers to sea lamprey and shad
* **Catchment:**
	+ - Drainage and land management interventions that can be used to intercept pollution, slow flows and reduce nutrient inputs: funding for approx 80 farms
		- targeted work on Japanese knotweed, Himalayan balsam and giant hogweed along 140km of riverbank
* We have developed **Opportunity Catchments** (OCs) as priorities for the 3rd River Basin Management Plans (RBMPs) cycle. Our Central Monmouthshire OC will focus on addressing WFD failures in the lower Usk and Wye catchments.  This will in part tackle phosphate issues, but the remit is much wider.
* We are also developing our **River Restoration Programme** where the SAC rivers are given higher priority.

* We have inspected all **dairy farms** in Monmouthshire to check slurry and silage storage and are now working through a programme to ensure that any non-compliant stores are bought up to the standards specified in the regulations.  We are focussing on the high-risk farms and due to the investment required this programme will be carried out over the next few years.
* In order to reduce the impacts on salmon from angling we have undertaken a River Usk rod fishing byelaw review. The provision within the ‘All Wales’ byelaws that mandated catch and release for all salmon and any sea trout caught before the 1st May on the River Usk, expires on 31st December 2021. The method restrictions and the slot size specification for sea trout, contained within the ‘All Wales’ byelaws remain in place until 2029. We have assessed options and undertaken a statutory consultation on our proposed replacement byelaws for the Usk. We have reviewed each of the representations made to this consultation and determined that we will progress with our proposals for mandatory C&R of all salmon at all times and any sea trout caught before the 1st May. We have now submitted our application for confirmation of the byelaws to Welsh Government and are hopeful that they will approve this in time for the start of the 2022 salmon season. We will publicise the decision as soon as we are informed.

I can assure you that NRW are working hard to address the issues you raise in the context of the resources available to us.  Since NRW was created, it has seen year-on-year reductions in baseline grant in aid from Welsh Government, resulting in an estimated real term reduction of circa £32m (35%) by 2021-22.  We recognise that these cuts have come at a time of austerity within the public sector.  We have faced this challenge through a variety of means, but unfortunately it has also led to some of our services being reduced.

We are committed to delivering real environmental change and improvement, however, we cannot do this alone.  All who operate and live within the catchments have a part to play and we need to discuss how we design developments and use land, as well as consider what we do in our everyday life that contributes to pollution and physical degradation of our rivers.  Collectively we need to develop and deliver long term, catchment-scale solutions to address the issues of nutrients and wastewater in our rivers.  We need to rethink how we manage nutrients arising from agricultural land and how we treat wastewater as well as how we can establish practical nature-based solutions that can both improve water quality and habitat but also reduce nutrient inputs.

Finally, I would like to thank you again for writing this report and sharing it with us. I realise that you will be familiar with many of the points above, but I hope it reassures you that we recognise the water quality issues in the Usk catchment and are working hard with other partners to address these with the resources available to us.

I’m sure that you already know our Head of Operations in SE Wales, Steve Morgan. I know that Steve would be more than happy to meet with you to discuss any of these matters further. Steve can be contacted at steve.morgan@cyfoethnaturiolcymru.gov.uk.

Yours sincerely



**Sir David Henshaw**

cc. Steve Morgan, NRW

Croesewir gohebiaeth yn y Gymraeg a’r Saesneg

Correspondence welcomed in Welsh and English

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