

## **RIVER WYE EMERGENCY AND ACTION**

### ***Purpose***

To advise members of the latest activities and plans to improve water quality, reduce excess nutrients and help restore the River Wye.

### ***Recommendations***

That the JAC, as an organisation long aware of the significant decline in the condition of the River Wye, which is so central to the Wye Valley AONB, welcomes the statements and concerted collaborative actions now being declared and advanced by the main stakeholders in the Wye Catchment, to improve water quality, reduce excess nutrients and help restore the River Wye and its tributaries.

The Wye Valley AONB Partnership will do everything within its powers, purposes and resources to work with all individuals, groups and organisations to convene, enable and deliver on the restoration, conservation and enhancement of the River Wye and its tributaries, which are one of the Special Qualities of the Wye Valley AONB.

### ***Key Issues***

- It is widely recognised that coordinated work needs to progress on the restoration of the River Wye and River Lugg to conserve and enhance the catchment's biodiversity, natural beauty and to enable future sustainable development, in the context of the climate and environment emergency.
- The Environment Agency (EA), in their River Wye Report (July 22), stress that the issues facing the River Wye and its high phosphate levels are complex and require urgent action by all contributing sectors with a coordinated catchment based approach.
- Phosphate discharges into the rivers Wye and Lugg originate from 2 main sources; diffuse agricultural pollution (about 60%) and sewage treatment works (up to 40%)
- The Wye Nutrient Management Board (NMB) have adopted the River Wye Phosphate Action Plan.
- The NMB Technical Advisory Group (TAG) established 5 sub-groups to progress key themes in the Phosphate Action Plan. The AONB Manager sits on the Innovation & projects sub-group.
- Herefordshire Council have set up a Phosphates Commission to consider their strategic approach to water quality issues in the Wye & Lugg, with neighbouring local authorities.
- Monmouthshire County Council recognises its rivers and coast are in crisis and has adopted a Motion for the Rivers and Oceans Action Plan.
- Significant reduction in nutrient input from all sources is required across the whole catchment, but 5 keys areas, all upstream of the AONB, have been identified with a high

proportion of pressures and high phosphate concentrations for targeted investigations, analysis and remedial action.

- The AONB Unit continues to manage partnership projects and collaborative initiatives including through the Farming in Protected Landscapes programme, to support farmers and land-managers in and around the AONB.
- The AONB Partnership winter seminar will focus on issues and activities in & around the AONB that improve water quality, reduce excess nutrients & help restore the River Wye.
- The Wye Valley AONB Partnership will do everything within its powers, purposes and resources to work with all individuals, groups and organisations to convene, enable and deliver on the restoration, conservation and enhancement of the River Wye and its tributaries, which are one of the central Special Qualities of the Wye Valley AONB.

### ***Reasons***

The River Wye SAC (Special Area of Conservation) is failing to meet phosphate targets in some reaches and is very close to the threshold in others. Over a number of years there have been algal blooms in the river and recognition of ecological decline. Excessively high summer water temperatures in the main river are a major contributing factor to the algal growth.

Phosphate in the Wye catchment originates from two main sources. These are discharges from sewage treatment works and from diffuse agricultural pollution, principally from livestock manure and nutrients washing into the river during rainfall events. More than 60% of phosphate (varying across the catchment) entering rivers is from agriculture.

The Wye Valley AONB covers the lower reaches of the Wye, downstream from the confluence with the Lugg. The River Wye and its tributaries are an AONB Special Quality as identified in the statutory Wye Valley AONB Management Plan. Most of the phosphates and contributing conditions for the algal blooms originate upstream of the AONB.

### ***Implications***

The Environment Agency (EA) published a revised version of the first River Wye Management Catchment Integrated Data Analysis Report in July (see [https://consult.environment-agency.gov.uk/west-midlands/river-wye-water-quality/supporting\\_documents/Wye\\_Report\\_Q1\\_2022\\_23.pdf](https://consult.environment-agency.gov.uk/west-midlands/river-wye-water-quality/supporting_documents/Wye_Report_Q1_2022_23.pdf)). The report brings data from citizen scientists and monitoring infrastructure together with existing datasets to contribute to a shared understanding of the issues and actions required. The recommendations include

- Significant reduction in nutrient input from all sources is required across the whole catchment to contribute to the recovery of river macrophytes. Reducing run-off and leaching of nutrients from land during summer rainfall events when dilution is low and temperatures are high is an important element of this remedial activity.
- The RePhoKUs project (Withers, et al., 2022) concluded that it may take about a decade to eliminate the agricultural phosphorus surplus from soils to achieve water quality targets in the catchment.
- Efforts to increase shade by tree planting and better management of riparian trees could help mitigate high temperatures.

- Taking a catchment-based approach, all contributing partners in the Wye Catchment should target investigations, analysis and remedial actions in key focus catchments that meet the following criteria:
  - As far upstream as possible
  - High phosphate concentrations relative to the wider catchment,
  - A high proportion of the following factors and drivers present: Arable land use; Maize; Poultry sheds; Anaerobic digesters; Sewage treatment works; Combined sewer overflows; Macrophytes status less than good and indicative of eutrophication; Declining Atlantic salmon populations; Land allocated for development to which Nutrient Neutrality guidance applies; Active Citizen Science groups; Active partnership projects

Based on these criteria the following 5 waterbodies are most suitable to target initially: 1. River Arrow near Kington, 2. River Arrow near Pembridge and Curl Brook, 3. River Lugg and tributaries near Presteigne, 4. Little Lugg and Withington Marsh Brook, 5. River Frome.

EA now have a full time Citizen Science Coordinator who will be overseeing the citizen science groups in the Wye in addition to a national project entitled Catchment Systems Thinking Cooperative (CaSTCo) to engage communities in catchment monitoring.

The Wye Nutrient Management Board (NMB) convenes the local authorities, government agencies and key stakeholders including water companies and farming support organisations, to progress the River Wye Phosphate Action Plan (see <https://www.herefordshire.gov.uk/downloads/file/23069/river-wye-sac-nutrient-management-plan-phosphate-action-plan-november-2021> ). There is significant crossover between the organisations and members of the NMB and the JAC. The NMB has established a Technical Advisory Group (TAG) of key officers to work collectively with partners and experts to resolve gaps and identify opportunities. The TAG has established 5 sub-groups to a) identify practical actions and projects that progress the Phosphate Action Plan, and b) identify gaps & issues beyond the ability of TAG and bring these back to the NMB.

These sub-groups are:

- Evidence
- Regulation
- Farm advice
- Poultry
- Innovation & projects.

The AONB Manager sits on this latter sub-group.

Following the DEFRA ministerial decision not to proceed with a request for a Water Protection Zone, Herefordshire Council along with Monmouthshire and Powys County Councils concluded that a Joint Cabinet Commission should undertake a strategic and systems review of how the respective councils can accelerate progress in the restoration of the Wye. In September the Cabinet Commission on Restoring the River Wye (the Phosphates Commission) was established (see

<https://councillors.herefordshire.gov.uk/documents/s50103960/Appendix%201%20-%20Terms%20of%20reference%20and%20membership.pdf> ). For Herefordshire, one of the considerations is what the Local Planning Authority (LPA) can do to move the planning regime for both agriculture and new housing development to full Nutrient Neutrality for all new planning applications by 2025. The Commission is intended to add value and capacity rather than duplicate the work of Nutrient Management Board and the TAG. Meanwhile Herefordshire Council are overseeing the building of the first wetlands in the UK to be

funded by developers buying what is being described as "phosphate credits" near the village of Luston, near Leominster.

Monmouthshire County Council has formally recognised that the county's coastline, rivers and climate are in a state of emergency and has outlined an Action Plan, which complements the Council's Climate Emergency Action Plan, to identify what the council needs to do in working towards nature recovery for our oceans and rivers (see <https://democracy.monmouthshire.gov.uk/documents/s32714/2a%20Place%20Scrutiny%20Sept22%20Motion%20for%20the%20Ocean.pdf> ).

At the Royal Welsh Show, the Welsh Government First Minister convened a summit discussing the phosphorous pollution of Welsh rivers and how the situation can be improved. Also over the summer, Julie James, Welsh Government Minister for Climate Change, convened a wide range of stakeholders to undertake a Biodiversity Deep Dive in Wales to develop a set of collective actions to support nature's recovery. In October the recommendations were released, <https://gov.wales/written-statement-biodiversity-deep-dive>, which correlate with improving the state of the Wye catchment and River Wye SAC:

1. Transform the protected sites series so that it is better, bigger, and more effectively connected
2. Create a framework to recognise Nature Recovery Exemplar Areas and Other Effective Area-based Conservation Measures (OECMs) that deliver biodiversity outcomes
3. Unlock the potential of designated landscapes (National Parks and Areas of Outstanding Natural Beauty) to deliver more for nature and 30 by 30
4. Continue to reform land and marine management and planning (including spatial) to deliver more for both protected sites and wider land / seascapes
5. Build a strong foundation for future delivery through capacity building, behaviour change, awareness raising and skills development
6. Unlock public and private finance to deliver for nature at far greater scale and pace
7. Develop and adapt monitoring and evidence frameworks to measure progress towards the 30x30 target and guide prioritisation of action
8. Embed Nature Recovery in policy and strategy in public bodies in Wales

Natural Resources Wales (NRW) have 6 hydrometric stations on the Wye and its tributaries where monitoring instruments have been measuring temperature, conductivity, dissolved oxygen, nitrates, total algae and pH in the river. NRW reported that over the summer water temperatures in the lower reaches of the Wye exceeded 25°C on several occasions, exacerbated by low river flows and this, along with fluctuating dissolved oxygen levels, in part due to algal blooms, is believed to be responsible for the loss of up to 40 adult Salmon.

NRW has also updated its "[Advice to planning authorities for planning applications affecting phosphorus sensitive river Special Areas of Conservation](#)". There is now a Monmouthshire Opportunity Catchment Officer in post with NRW working on the Trothy and Monnow sub-catchments of the Wye. Over the course of the 3-year plan, the project aims to work with farmers and land managers to deliver a range of interventions to reduce pollution, mitigate climate impacts, and bring biodiversity benefits.

Natural England (NE) Catchment Sensitive Farming advisors continue to deliver advice throughout the English part of the Wye Catchment, augmented by the Wye & Usk Foundation (WUF) Catchment Advisors operating across the whole catchment, as resources allow (see <https://www.wyeuskfoundation.org/Pages/FAQs/Category/farm-advisors>). WUF

are also leading on progressing Natural Capital opportunities in the catchment (see <https://www.wyeuskfoundation.org/Pages/Category/natural-capital> ).

The Friends of the Upper Wye lead on much of the Citizen Science work collecting water quality data in the catchment, along with CRPE & CPRW, Wye Salmon Association and Friends of the Lower Wye. Friends of the Upper Wye became a registered charity in 2022 and merged with the Friends of the Lugg to cover all the upper reaches of the Wye and its tributaries, upstream of Mordiford. Their data is displayed on WyeViz and shared widely <https://public.tableau.com/app/profile/mcarpenter/viz/FriendsOfTheUpperWyeCitizenScienceData/START>. The SaveTheWye campaign coordinated 'WyeJuly' as a series of events bringing together communities the length of the Wye to learn about the crisis from the groups that have taken on the monitoring of the river. The AONB Unit had a stand at the Monmouth WyeJuly event.

Wye Valley AONB Unit manages several projects and initiatives, including with EA, NRW, WUF, Herefordshire Meadows and Farm Herefordshire, that support and advise farmers to address some of the contributing factors to poor water quality in the Wye, such as reducing soil erosion and agricultural run-off into the river in the AONB. These include:

- The AONB Farming in Protected Landscapes (FiPL) programme is a delegated DEFRA grant (on the English side of the AONB) that supports farmers and land managers to deliver bigger and better outcomes for the environment under the 4 themes of Climate; Nature; People & Place. To date 12 projects have been supported that enhance farm and land management, predominantly in the AONB but schemes upstream are also considered where appropriate. The FiPL Officer is able to give advice and guidance to potential applicants as well as oversee the applications process, see <https://www.wyevalleyaonb.org.uk/farming-in-protected-landscapes/>
- WUF Catchment Advisors have continued to encourage Natural Flood Management (NFM) and Riparian Tree management schemes in tributaries and sub-catchments of the Wye in the AONB, working with farmers and helping with the uptake of advice and AONB grants. To date 12 projects have been supported primarily through EA funding.
- The Lower Wye Nature Networks project funded through the National Lottery Heritage Fund (NLHF) in the Monmouthshire as part of the AONB have consultants advising farmers and preparing Farm Plans to help secure other grants to improve land management practices and connectivity across the project area. In addition Gwent Wildlife Trust and the Woodland Trust are enhancing management in 7 SSSIs.
- Also on the Welsh side of the AONB, the Landscape & Biodiversity Enhancement Grants, part of the Welsh Government (WG) delegated AONB Sustainable Development Fund (SDF) enables modest grants for activities such as pond creation and hedgerow planting. Land management grants are also available through the WG Sustainable Landscapes Sustainable Places (SLSP) delegated Nature Recovery and Landscape Connectivity funding.
- AONB staff regularly contribute to the Wye Catchment Partnership, coordinated by WUF with NRW & EA.
- The AONB Manager sits on the Innovation & Projects sub-group of the Wye Nutrient Management Board (NMB) Technical Advisory Group (TAG).
- The AONB Development Officer sits on the Farm Herefordshire Steering Group and the Herefordshire Meadows Network.
- The AONB Unit hosted an event in Woolhope on 'Developing Natural Capital and Agri-environment schemes' with Herefordshire Meadows and Farm Herefordshire, funded

by the Woolhope Dome Environmental Trust, attended by over 70 farmers and land managers.

- Funding is being negotiated with EA to support a winter programme of promotion of water management events to raise awareness with farmers and land managers, with WUF, Herefordshire Meadows and Farm Herefordshire.
- AONB Species Action Plans are being prepared in response to the National AONB Colchester Declaration pledge to adopt species and reverse their decline. Water Crowfoot is one of the Species Action Plans that the AONB Unit will publish in 2023 as an indicator for water quality in the AONB.
- The AONB Partnership winter seminar, in late February or early March, will focus on land management issues in and around the AONB and activities and plans to improve water quality, reduce excess nutrients and help restore the River Wye.

A wide range of individuals, groups and organisations continue to lobby for and highlight the condition of the River Wye. Such action has helped maintain a high level of political and media coverage locally, regionally and nationally; most recently on BBC Wales Investigates “What’s Killing Our Rivers?” (see <https://www.bbc.co.uk/iplayer/episode/m001cmj3/bbc-wales-investigates-whats-killing-our-rivers> )

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### ***Background***

EA’s River Wye Water Quality webpage

<https://consult.environment-agency.gov.uk/west-midlands/river-wye-water-quality/> provides a wealth of detailed information and further links which explains the EA’s analysis, activities and plans to improve water quality, reduce excess nutrients, and help improve environments in the Wye and Lugg catchments.

The Wye Nutrient Management Board (NMB) is hosted by Herefordshire Council and is the responsible body for ensuring the delivery of the Conservation Objectives for the River Wye Special Area of Conservation (SAC). It provides oversight and direction to all involved in delivering the Nutrient Management Plan. Further details on the NMB are available here: <https://councillors.herefordshire.gov.uk/mgCommitteeDetails.aspx?ID=1161>