

# River Wye SAC

## Nutrient Management Plan Phosphate Action Plan 2021 Progress Update

This is a progress update on the 2021 action plan.

The action plan update in 2021 was originally intended as a response to the 'Dutch Nitrogen Case'. This EU judgement stated that, where rivers were failing their nutrient targets, the possibility of authorising further development which would add more nutrients was necessarily limited, unless clear plans were in place that would provide certainty that nutrient levels would reduce in the near future. Our original intention was that this action plan would provide that certainty.

Since that time, there has been considerable progress on developing Nutrient Neutrality mitigation solutions, including the creation of 'nutrient neutrality' procedures and calculators which have allowed development to happen despite the Dutch ruling. However, we have also learnt that producing a plan which relies significantly on voluntary measures to provide the level of certainty required by the Dutch ruling will be very challenging and will take a long time.

The action plan will therefore continue to focus on the actions required to achieve favorable condition, but it no longer seeks to produce a plan that can provide certainty with regards the Dutch Nitrogen Case.

Legal obligations on operators of Waste Water Treatment Works (WWTW) (excluding Dwr Cymru) will deliver significant reductions in pollution from wastewater across England. However, in these catchments the nutrient issue is largely caused by discharges from wastewater treatment works. The operators of these works are legally obliged to upgrade their works and they have clear plans to achieve this. By contrast, there is no legal obligation to upgrade WWTW in the Lugg catchment. Moreover, most of the nutrient issues are caused by diffuse agricultural pollution, which will take much longer to address.

### **1.0 Background**

The River Wye Nutrient Management Plan (NMP) was developed in 2014 along with an associated action plan. This was last updated and approved by the Nutrient Management Board in 2021.

## **2.0 Diffuse Water Pollution Plans(DWPP)**

DWPPs are owned by the Environment Agency (EA) but produced jointly between EA and Natural England (NE). The aim of a DWPP is to act as a mechanism for improving the water quality of Protected Areas. They follow a defined process of understanding the problem, options appraisal, identifying measures and mechanisms and then implementation of identified measures. This is very similar to the content of the NMP. The two plans cover very similar material and have similar objectives so having both is duplication. The EA therefore intends to use the DWPP development to also review the NMP for the English part of the catchment. The EA will work closely with NRW to ensure cohesion across the border so the catchment is treated as a single entity.

The Environment Agency (EA) has begun work on development of a Diffuse Water Pollution Plan (DWPP) for the catchment. This duty covers the English part of the Wye catchment and its tributaries (Arrow, Lugg and Frome). This plan needs to be in place by March 2025.

### **2.1 Welsh Evidence Base**

Welsh government funding is shortly due to be confirmed with Herefordshire Council. This funding will enable work to collate the evidence base on the Welsh catchment and will incorporate projects already underway in Wales and recommendations for future mitigation measures. This work will ensure the Nutrient Management Plan reflects the catchment as a whole and is aligned with wider plans moving forward.

### **3.0 Local Nature Recovery Strategy (LNRS)**

Herefordshire Council (HC) secured Local Nature Recovery Strategy (LNRS) grant funding from DEFRA in July 2023. As the Responsible Authority (RA), HC leads LNRS development and are responsible for the strategies delivery. Natural England (NE) acts as the formal supporting authority for the LNRS within Herefordshire, providing guidance and expertise to HC throughout its development. Given NE are supporting authority to every LNRS in England, they also ensure consistency and alignment between neighboring authorities.

HC has established a governance structure for the LNRS, including a steering group comprising of Herefordshire Wildlife Trust (HWLT), Wye Valley and Malvern National Landscapes (NL), the Environment Agency (EA), the Forestry Commission (FC), Natural England (NE), and the Countryside Land and Business Association (CLA). Additional dedicated working groups for 'species shortlisting' and 'stakeholder engagement' bring together a wider set of partners to contribute their expertise to the LNRS development.

In addition to LNRS Guidance and Regulations that were made available in March 2023, additional advice pieces have been published by NE central team including 'Engaging the land management sector' and 'Species Recovery.'

The LNRS Stakeholder Engagement Plan has been drafted and shared publicly via HC's dedicated LNRS webpage and sets out timelines for both engagement and formal consultation. An initial 'awareness raising' engagement phase is planned to start in July 2024 with targeted stakeholder participation events to gather priorities and measures from a wide range of stakeholders planned for late summer. Planned events include webinars, market town engagements and farm walks.

HC have produced a draft Local Habitat Map containing 'areas of particular importance for biodiversity'. Work is underway to establish 'areas that could become of particular importance for biodiversity' using a mapping tool overlaid with locations and priorities that will be drawn from stakeholders via engagement. A written statement of biodiversity priorities is scheduled to start post-stakeholder engagement in the autumn.

In addition to proposing actions for nature in the places that would be most beneficial, LNRS also aim to set priorities and propose potential measures for the recovery and enhancement of species. HC have produced a species longlist in accordance with NE's species advice and have planned a 'species shortlisting workshop' in July. The event will bring together county recorders and experts to agree upon species priorities for the county.

Gloucestershire County Council also leads the LNRS development for Gloucestershire, of which part covers the Wye Catchment.

#### **4.0 NMP Action Plan - Progress Update**

The information below is taken from the 2021 NMP Action Plan and this is a progress update to that action plan. The main body of the Action Plan is subdivided into sections on **point sources, diffuse sources, evidence and monitoring and action plans for the main sub-catchments**. It is likely that there are also new actions that have been taken, or ongoing, within the catchment which are not included in the plan, such as LNRS and Landscape Recovery. This progress update is a light touch stock take on progress and does not report on impact or efficacy of the actions.

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The next steps which were identified to be undertaken as a priority were:

<b>Strategic Issues</b>	<b>Actions</b>	<b>Progress update</b>	<b>Next Steps</b>
<b>Project officer</b>	Employment of a project officer to coordinate and drive this work	<p>The Nutrient Management Board (NMB) was reviewed in Autumn 2023 and it now consists of a River Wye Statutory Officers Group (RWSOG) which is NE, EA, NRW, Welsh Water and the local authorities. This group will drive the NMP and makes decisions, it will direct the Technical Advisory Groups (TAG) and “own” the action plan. It will meet monthly initially. The TAG groups have been revitalised under 3 task and finish groups. The NMB “Board” then is a wider stakeholder group which can advise and challenge what comes from the SOG.</p> <p>The RWSOG agreed on 11 October 2023 that TAG priorities are:</p> <p>a) Action plan T&amp;F group – a group which updates the action plan.</p> <p>b) Data &amp; Evidence Group – providing the required data and analysis</p> <p>C) T&amp;F N&amp;P loss tool – finalising the priority development of P tool.</p> <p><u>(Public Pack)Minutes Document for Wye Catchment Nutrient Management Board, 11/10/2023 14:00 (herefordshire.gov.uk)</u></p>	<p>Action Closed</p> <p>Updated governance now in place</p>
<b>Other point sources</b>	TAG to discuss the potential for prioritised actions on specific point sources, such as industry, septic tanks or CSO's	The DWPP will provide an update to source apportionment modelling and current measures in place to reduce nutrient loadings within the catchment. An options appraisal will consider opportunities for reducing nutrient inputs.	Action through DWPP
<b>Base flows and abstractions</b>	TAG to discuss	Work has started to align the NMP with the Wye Catchment Partnership Plan (WCP) which focuses on the key priorities including high and low flows also identified through the systems mapping work.	Action through WCP Plan
<b>Regulation</b>	Fuller application of regulatory powers around agricultural practices in the catchment. Build collaboration between farmers and regulators to raise levels of regulatory	The River Wye remains a priority for the regulatory Agencies within the catchment. Ongoing work with partners to support collaboration with the farming community.	Ongoing action through EA, updates provided via EA SOG update

	compliance.		
<b>Farm advice</b>	Consider undertaking a review of the successes and shortcomings of farm advice and voluntary action in the catchment. This may need to be commissioned by Defra.	Farm Herefordshire brings together representation across the relevant partner / stakeholders and will review current approaches to farm advice.	Farm Advice contribution to reducing nutrients covered as part of DWPP  Ongoing work through Farm Herefordshire updates provided to NMP Board
<b>Modelling</b>	Further modelling may be required to increase confidence in the measures and mechanisms required, including <u>Source Apportionment Geographic Information Systems (SAGIS)</u> tool recalibration and further Farmscoper scenario modelling	This work is currently being delivered through the review of the NMP and DWPP for England. A new Farmscoper report was drafted in March 2024. <u><a href="#">DRAFT River Wye Farmscoper Report (Version 2).pdf</a></u>	Action through DWPP
<b>Lugg actions</b>	Partners should explore what additional measures should be employed to reduce phosphate in the Lugg, with enough certainty to meet the requirements of the Habitat Regulations in light of the Dutch Nitrogen Judgement	Work has started to align the NMP with the Wye Catchment Plan which focuses on the key priorities also identified through the systems mapping work.	Action through DWPP and WCP Plan

## Point Sources

Point source					
Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
<b>Practical actions</b>					
Improvements to Waste Water Treatment Works (WWTW) listed.	All schemes will deliver 56.2kg/d			2027	Very good progress has been made with the AMP 7 schemes, with majority having been completed ahead of schedule. Remaining number will be complete by March 2025. Awaiting Final determination from Ofwat before we can share AMP 8 programme. Details to be shared via SOG meetings.
Ongoing compliance work on trade effluent discharges in the catchment.	Limited number of sites. Talgarth AD plant. G P Biotec.	NRW	No details.		Regular inspections are made to G P Biotec to ensure compliance with the installation permit.
<b>Investigative Actions</b>					

Investigations to WWTW listed	Investigation of highly and frequently spilling discharges from WWTW and Combined Sewer	DCWW	None given, as this is an investigative action.	2025	<p>Asset Management Plan is the 5-year investment period that water companies work to. AMP 8 will be 2025 – 2030. Investigations are ongoing which will give us a programme for AMP 8 and future AMP periods. DCWW have submitted their price review plan for AMP 8 and the draft determination from Ofwat was due to have the initial feedback in June 2024, however, this has been postponed until after the general election. This is followed by a period of consultation, and the final determination is released around December.</p> <p>A Storm Overflow (SO) manifesto will be shared, details to be passed on via SOG meetings.</p>
	<p>Overflows (CSO's).</p> <p>Over the next 5 years (2020-2025) this programme will use data from the Event Duration Monitor sites to prioritise wastewater assets for investigation, with the aim to reduce both the number and volume of storm water discharges to the</p>				<p>Investigations are ongoing which will give us a programme for AMP 8 and future AMP periods. A SO manifesto will be shared, details to be passed on via SOG meeting.</p> <p>DCWW will be not only looking at spill numbers, but approach will be to prioritise based on environmental impact.</p> <p>A Storm Overflow (SO) manifesto will be shared, details to be passed on via SOG meetings.</p>

	Environment.				
Investigations into Combined Sewer		DCWW		Not identified	As above. A Storm Overflow (SO) manifesto will be shared, details to be passed on via SOG meetings.
Overflows and spills in England					
Investigation into inputs from septic tanks		Not identified		Not identified	HC have commissioned a drainage specialist to investigate the feasibility of PTP upgrades at schools
Investigation into inputs from Industry		NRW / EA		Not identified	To be considered later to better understand their contribution.
Investigations based on geography i.e. 'hotspots'.		Not identified		Not identified	Ongoing river monitoring through water quality sampling, sondes and Citizen Science. EA publish annual monitoring report on River Wye engagement HQ NRW have published their assessment of river quality in the failing SAC rivers in Wales, which includes the river Wye. Local teams use this information to target their compliance work.

## Diffuse phosphate sources

Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
Diffuse P sources					



Thinking actions					
Certainty from voluntary actions / farm advice	TAG to consider how much 'certainty' can be attributed to voluntary actions.				This work is currently being delivered through the review of the NMP and DWPP for England.
Legacy phosphate	Consider outcomes of RePhoKUs project and implications.				Outcomes from the RePhoKUs study were used to inform Systems Mapping work which identified mechanisms to improve river health. EA currently funding phase 3 study focusing on the role of legacy 3 phosphate
Water Protection Zone	EA to lead thinking on whether a Water Protection Zone is required.	EA			The role of a water protection zone will be evaluated as part of the DWPP process – starting with Options Appraisal from July 2024. WPZ is a decision made at Ministerial level and needs to include an economic assessment.
Desk study into Phosphate treatment of Farm wastes	This project is to establish innovative approaches to reducing phosphate losses from agricultural Sources. Specifically, supporting field trials and investigating the feasibility of technology for stripping phosphate from agricultural slurries and manures.	Andrew Osbaldiston (EA), Kate Speke Adams (WUF)		Mar 2022	This workstream is now being picked up by the wider River Wye Action Plan led through DEFRA

	<p>Information will feed into the wider strategic catchment partnership including the NMP Board and will be used for a range of phosphate modelling scenarios across the catchment, providing greater certainty of the measures.</p>				
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Diffuse P sources	Detail	Lead		End date	Progress Update
<b>Evidence actions</b>					
Evidence review	Review existing evidence and define what further work is required.				To be considered as part of the overall review of the NMP and alignment with Wye Catchment Plan.
Farmscoper runs	Consider whether re-runs of farmscoper would add value.				An updated version has been drafted but not yet published but is now available for partners. This decision support tool and has limitations as all models do, but it should provide steer to the key actions to push for across the catchment and roughly how much of a difference we could expect to see in different uptake scenarios. <a href="#">DRAFT River Wye Farmscoper Report (Version 2).pdf</a>
NRW project to review and map all known data – WQ, farms, discharges.	Review and map all known data – WQ, ecological, agricultural data (livestock numbers) permitted discharges/deployments, Biosolids notifications to prioritise work programme.	NRW		March 2021	NRW. This work is being delivered by our new Upper Wye Restoration project team to target their restoration work.

CSF review	Project to increase understanding of the successes, shortcomings of CSF, and future opportunities. Quantify reductions from CSF, list measures that reduce P, rank certainty, forecast future reductions from CSF.	NE / EA / WUF			The last national review of CSF was carried out in 2018 following the end of phase 4. Link to the report is below. <a href="#">Microsoft Teams Chat Files - OneDrive (sharepoint.com)</a>
Groundwater /surface water abstractions	Assess potential to effect base flow and dilution of discharges. Need to consider whether there would be any benefits of dilution and changing licences.	NRW/EA			EA time limited license review to take place March 2027.  NRW - a review of permits >20 m3 per days has been carried out and new and tightened phosphorus limits have been added.

Citizen science	There are six citizen science projects in the Wye catchment.	Elle Von Benzon (Cardiff University), Andrew Osbaldiston (EA), Fiona Groves (WUF)		October / November 2021 from Cardiff Uni however funding will be sought to continue the project into 2022 and beyond.	Continuing collaboration with CS and data informing Catchment Priorities as outlined in the EA annual monitoring report on Engagement HQ  NRW guidance note on Citizen Science issued.
<b>Action Diffuse P sources</b>	<b>Detail</b>	<b>Lead</b>		<b>End date</b>	<b>Progress update</b>
<b>Practical projects</b>					
Farming Connect: Review of catchments and priorities	Targeted pollution prevention campaign phase 2	NRW/ Farming connect		March 2021	Farming Connect to report on targeted Welsh catchments
NRW: Targeted	Dairy project,	NRW		Funded until March 2022.	Our 3 year Dairy project has come to a close and has been superseded by two new teams in Wales inspecting farms for compliance with the new Wales

farm inspection programme	Poultry/pig farm visits. Ithon Opportunity Catchment Partnership Programme.				<p>agriculture regulations.</p> <p>Permitted chicken farms inspections continue. Farms outside of the assurance scheme are visited annually, farms in the scheme every 3 years.</p>
Herefordshire Wye and Lugg Integrated Natural Flood Management (NFM)	A significant number of NFM measures have been and continue to be delivered across the Wye and Lugg Priority Catchments	EA / HC		March 2022 and beyond	
Farm trial to produce "Johnson-Su compost" at	This project is to establish a sustainable method to unlock Legacy Phosphate in soils, initially at Farm scale prior to wider engagement and potential wider coverage at a catchment scale. EA have part funded a trial at Townsend Farm,	Ben Taylor  Davies (Townsend		March 2022  although funding bid in	

<p>Townsend Farm, Brampton Abbots, Herefordshire</p>		<p>Farm), Andrew Osbaldis- ton EA, Kate Speke Adams (WUF)</p>		<p>place to develop the coordination and demonstration of best practice through 2022 and beyond.</p>	
	<p>Ross on Wye, to establish the effectiveness of the treatment system that will be demonstrated and promoted more widely with the support of the Wye and Usk Foundation.</p>				
<p><b>Action</b></p>	<p><b>Detail</b></p>	<p><b>Lead</b></p>		<p><b>End Date</b></p>	<p><b>Progress Update</b></p>
<p><b>Other diffuse sources</b></p>					
<p>Identify highways acting as diffuse pollution pathways and consider potential interventions</p>		<p>Local Authorities</p>			

## Evidence and Monitoring

Monitoring					
Action	Detail	Lead organisation	Certainty (RAG)	Target end date	Progress Update
RBMP working group to agree targets across Wales and England.	Being discussed as a part of the River Basin Management Plan review.	NRW / EA / NE		Autumn 2021	New Common Standard Monitoring Group - CSMG targets agreed for catchment including Wales
Agree monitoring requirements, ensuring consistency across Wales and England.		NRW / EA / NE			NE update - Progress is being made on the full condition assessment. Work will commence in 2024. With EA leading on monitoring, NE will co-ordinate, using available data and identifying gaps in monitoring data needed for the condition assessment. NE may need to carry out some monitoring of macrophytes and river habitat surveys and plans are made to carry these out Summer 2024.



## Sub catchment plan – Upper Wye

Upper Wye actions					
Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
Monitor levels at Marteg.		NRW			Outstanding and superseded.
Ensure agriculture at Marteg is compliant with regulations.		NRW			In progress – our inspection programme is ongoing.
Investigate failures / problems at Newbridge and take appropriate action.		NRW and DCWW	Could lead to projects which then have some certainty.		Complete – Investigations into a new poultry unit close to Newbridge have concluded and the farm is compliant.
Investigate whether reservoir discharges can be modified to flush algae.		NRW	Could lead to projects which then have some certainty.		Complete – reservoir discharges have to follow their abstraction licences and there is little scope of allow for additional releases.
Consider delivery of liming at Elan.		WUF / NRW	Could lead to projects which then have some certainty.		We have been unable to progress this action due to a lack of funding.
Consider opportunities for wetlands.			Could lead to projects which then have some certainty.		To be considered through the Wye Catchment Fund and Landscape Recovery including Biodiversity Net Gain

## Sub-catchment plan – River Ithon

River Ithon actions					
Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
Opportunity  catchment work, including tackling bank erosion and lack of instream habitat diversity.	WUF completing  opportunity mapping for Ithon by end of July 2021 (HLF funded).		Could lead to projects which then have some certainty.		Picked up by the Upper Wye Restoration project who are aiming to improve habitat availability and quality for a range of important habitats and species: Ranunculus habitat, Atlantic salmon, freshwater pearl mussel, white-clawed crayfish, otter, bullhead and lamprey.  Action to be taken forward under Upper Wye Restoration project
Encourage natural flood management and natural flooding including creation of floodplain meadows.	WUF completing opportunity mapping for Ithon by end of July 2021 (HLF funded).	NRW / WUF	Could lead to projects which then have some certainty.		The Upper Wye Restoration project will be bringing in projects to restore floodplain habitat and introduce Natural Flood Management
Identify sources  discharging to ground, including septic tanks,	WUF have  completed SCIMAPs for Ithon.		Could lead to projects which then have some certainty.		In progress - We have regular meetings with WUF where they make us aware of problems on catchment. We then follow up.

landspreading etc.					
<p>Identify areas where large changes to farming practice are occurring, use catchment officers to approach farmers and encourage changes to farm design, including much wider buffer strips, interception ponds to trap runoff and slow flow etc.</p>	<p>WISE project already delivered in Ithon, need to ensure engagement is understood and shared.</p>		<p>Could lead to projects which then have some certainty.</p>		<p>In progress - We have regular meetings with WUF where they make us aware of problems on catchment. We then follow up.</p>

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## Sub-catchment plan – River Irfon

River Irfon actions					
Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
Need for river restoration work  along main river and tributaries to reduce pollution risk and ecological resilience.	Afonydd Cymru manage river  restoration activities under the Fisheries Habitat Restoration Plan.		Could lead to projects which then have some certainty.		Superseded by the Upper Wye Restoration project.

## Sub-catchment plan – Llynfi and Hay tributaries

Llynfi and Hay tributaries actions					
Action	Detail	Lead	Certainty (RAG)	End date	Progress Update
Reduce nutrient inputs into Llangorse Lake; restore the inflow and outflow to encourage nutrient deposition on floodzones.			Unknown.		In progress. Llynfi – some investigation work at Llangorse, septic tanks, land spreading advice given.

<b>River Lugg actions</b>					
<b>Action</b>	<b>Detail</b>	<b>Lead</b>	<b>Certainty (RAG)</b>	<b>End date</b>	<b>Progress Update</b>
<b>Practical actions</b>					
Integrated wetlands.	Herefordshire Council is investigating integrated wetlands to provide additional treatment below WwTWs.	Hrefordshire Council	High – Good level of scientific certainty around P removal. Good certainty around delivery as planning permission required.		Luston Wetland is now fully operational. Tarrington wetland is due to be built in early 2025 and further land is being sought to progress additional wetland sites.
<b>Action</b>	<b>Detail</b>	<b>Lead organisation</b>	<b>Certainty (RAG)</b>	<b>End date</b>	<b>Progress update</b>
<b>Thinking actions</b>					
Strategic assessment of potential Phosphorus reduction interventions in the River Lugg catchment.	To take national datasets and map them against WUF data held at farm level, to try and identify and prioritise practical measures on the ground. To include a range of measures. This is a first attempt to try and see if on the ground knowledge can be mapped and used to drive strategic	WUF/Hereford shire		Complete and submitted to Hereford.	Complete and submitted to Hereford.

	change.				
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What further reduction options are there? Refer to shopping list.	List voluntary measures that reduce phosphate, quantify reduction, rank their certainty.	NE / EA / WUF		April 2021	Farmscoper 2024 – top 5 effective measures for reducing phosphorus – autumn cover crops, riparian buffer strips, bird seed mixes, infield grass strips and cultivate compacted tillage soils.
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