

Title of report: River water pollution

Meeting: Environment and Sustainability Scrutiny Committee

Meeting date: Monday 25 September 2023

Report by: Head of environment, climate emergency and waste services

Classification

Open

Decision type

This is not an executive decision

Wards affected

(All Wards);

Purpose

This report presents information for the committee to consider regarding the factors contributing to the pollution of rivers and watercourses, the roles and responsibilities of lead agencies and a summary of the council's duties and powers to support the lead agencies to address river pollution.

Recommendation(s)

That:

- a) **The committee notes the Council's progress and leadership to date, and**
- b) **The committee determines any other actions or recommendations it may seek to make.**

Alternative options

1. None identified, this report provides an update to the Environment and Sustainability Scrutiny Committee.

Key considerations

2. The rivers Wye ("the Wye") and Lugg ("the Lugg") are considered important in terms of nature conservation due to their aquatic habitats and species. Both contain Special Areas of Conservation ("SACs") and both are Sites of Special Scientific Interest ("SSSIs"). A map showing the Rive Wye SAC and sub-catchment is included as Appendix 2.
3. Phosphate ("P") limits are being exceeded at 31 points in the river catchment. This has arisen from both point-source P releases from Waste Water Treatment Works ("WWtW") and diffuse pollution from agricultural practices.

4. Natural England are the lead conservation body and they categorise the condition of SSSIs as one of the following:
 - a) favourable - habitats and features are in a healthy state and are being conserved by appropriate management
 - b) unfavourable (recovering condition) - if current management measures are sustained the site will recover over time
 - c) unfavourable (no change) or unfavourable (declining condition) - special features are not being conserved or are being lost, so without appropriate management the site will never reach a favourable or recovering condition
 - d) part destroyed or destroyed - there has been fundamental damage, where special features have been permanently lost and favourable condition cannot be achieved
5. In May 2023, Natural England downgraded the condition status of the Wye from unfavourable recovering to unfavourable declining meaning that they must now take further steps and measures to bring about the favourable conservation status of the river. The Natural England assessment of the River Wye and Lugg SAC SSSI is included as Appendix 5.
6. Welsh Water publish specific source apportionment of phosphorous. They are able to do this fairly accurately by calculating total phosphorous in the river system and subtracting that entering from their own plants, hypothecating how much comes from other sources leaving the remainder to agriculture.
7. At present, the source apportionment data released by Welsh Water (DCWW) (Appendix 4) shows effluent from sewage treatment works accounts for 23% of the average daily P loading (kg/d) with rural land use contributing 72%, storm overflows contributing 2% and a further 3% from other sources including septic tanks and urban run-off

Lancaster University - Re-focusing Phosphorus use in the Wye Catchment

8. In May 2022 Lancaster University published a 'Re-focusing Phosphorus use in the Wye Catchment' (RePhokus) report (Appendix 1) which provided catchment stakeholders with a better evidence base for driving policy and administrative change that is required to improve the ecological functioning of the River Wye and its provision of ecosystem services.
9. The RePhokus is an independent academic project which drew on available data to estimate the quantity of phosphorous entering the catchment from each source, how it moves through the catchment, how some is retained in the soil and how some enters the river.
10. In March 2023 Lancaster University published a further report 'Soil Phosphorus Status and Water Quality in the River Wye Phase 2: Land Use Change and Phosphorus Balances in the Wye Catchment' (Appendix 3). This report further developed the evidence base linking livestock farming to phosphorus (P) surpluses, soil P status and water quality impacts in the Wye catchment, and a better understanding of the potential impact on P surpluses and water quality of future land use change.

Duties and powers

11. The Environment Agency is the regulatory body responsible for water quality. They have a duty to cooperate with Natural England to take steps and measures to prevent the further deterioration of the river. This responsibility includes monitoring pollution/phosphate levels and managing diffuse pollution through the regulation and enforcement of both 'farming rules for water' and 'Storing silage, slurry and agricultural fuel oil'.

12. In 2014 when high levels of phosphates were first identified within the River Lugg watercourse, it was agreed by Natural England and the Environment Agency that the implementation of new measures were necessary in order to bring the river back into compliance; this led to the development of the Nutrient Management Plan (NMP). The evidence base supporting the plan provided an analysis of local data and concluded that the source apportionment of phosphate within the River Lugg catchment area was roughly equal between point sources (sewage treatment works) and diffuse pollution (livestock and arable agriculture). The NMP therefore set out a series of measures in order to target pollution from both sources.
13. Water company reduction targets are determined by agreement between DCWW, the Environment Agency and Ofwat. They are reported to the Nutrient Management Board (NMB) but the Board has no formal role in this technical process. Ofwat are the “economic regulator” protecting the interest of customers who pay for water, whilst the Environment Agency focus on water quality.
14. DCWW has committed to cleaning up rivers and it is hoped that water treatment plants on the Wye which are causing the greatest ecological damage will be prioritised for investment. However, DCWW say that they are approaching the technical limits of what can be achieved on the Wye, that further upgrades would be costly compared to benefit and would carry high carbon costs. They further advise that they are already meeting their “fair share” obligations and that it would be unfair to ask their customers to pay to go beyond their fair share.
15. DCWW are currently delivering identified improvements through their Asset Management Plan (AMP) AMP7 programme (2020-25) and are finalising the next AMP8 programme (2025-2030.)
16. Herefordshire Council, as the local planning authority, have a role as the ‘competent authority’ to assess projects and plans under the Conservation of Habitats and Species Regulations 2010 (as amended) (“the Habitat Regulations”).
 - a) This means that the Council is legally required to assess the potential impact of projects and plans, on European Sites including the River Lugg catchment area as part of the River Wye SAC through a screening opinion carried out by the competent authority.
 - b) Where likely significant effects are identified a subsequent Habitat Regulation Assessment (“Appropriate Assessment”) is legally required to be undertaken.
 - c) In the instance of the addition of phosphate into the river as a result of the development, these effects are required to be mitigated and only if it is considered that the development will not, adversely affect the integrity of the European site, can permission be granted.
 - d) As a result of the decision of the European Court of Justice (“the ECJ”) in *Cooperatie Mobilisatie for the Environment UA v College van gedeputeerde staten van Limburg (C-293/17)*, NE has stated that the current Nutrient Management Plan (NMP) could no longer be relied upon to provide the certainty to bring the river back into compliance with relevant targets and that all future development within the Lugg catchment must demonstrate nutrient neutrality.
17. Under the General Power of Competence, a power introduced by section 1(1) of the Localism Act 2011 the Council is permitted to do anything an individual can do, unless prohibited by law (and subject to public law principles).
18. Herefordshire Council commissioning and decision making.
 - a. Through the Council’s governance process all decisions are required to consider the environmental impact. For example as part of the Waste Disposal contract extension

and variation phosphate pollution was considered and a contract requirement was included to ensure any digestate from the Anaerobic Digestion of local municipal food waste is not permitted to be used anywhere within the River Wye catchment area.

Identify key partners and their roles and responsibilities

19. The current membership of the Nutrient Management Board is shown in the below table, however the Environment Agency is currently leading a governance review of the board.

Nutrient Management Board		
Partner		Roles and Responsibilities
Original membership	Herefordshire Council (Chair)	Local Planning Authority – Herefordshire Chair of NMB
	Natural England	Lead conservation body
	Environment Agency	Regulatory body for water quality (England)
	Natural Resources Wales	Regulatory body for water quality (Wales)
	Welsh Water DCWW	Utilities – water
	Powys County Council	Local Planning Authority – Powys
	Countryside Land Association	
	National Farmers Union	
	Catchment Partnership	
	Chair of the Stakeholder group	
Co-opted	Farm Herefordshire	
	Hfds Building Lobby Group	
	Hfds Wildlife Group	
	Wye Salmon Association	
Invited	Monmouthshire County Council	Local Planning Authority – Monmouthshire
	Forest of Dean District Council	Local Planning Authority – Forest of Dean
	Bannau Brycheiniog (Brecon Beacons)	National Park Authority

Herefordshire Council - Strategic Investment in Phosphate Mitigation

20. Herefordshire Council has chosen to voluntarily exercise its General Power of Competence to build constructed integrated wetlands in the Lugg Catchment to provide development headroom and some improvement called “river betterment” to provide phosphate credits to developers in the catchment who are unable to otherwise demonstrate nutrient certainty.
21. The Luston wetland site is a world first and is currently trading credits, enabling nutrient neutral development in the River Lugg catchment area.
22. Herefordshire Council commissioned Ricardo consultants to undertake a study of preferred mitigation options for private schemes to enable developers to mitigate the nutrient budget of

their development. The Council has also developed further publicly available guidance on its webpages and is developing a mechanism to provide a pre-planning advisory service for HRA.

23. Herefordshire Council developed the UK's first development Phosphate Calculator which has subsequently been adapted and is used nationally by Natural England.
24. In May 2023 Herefordshire developed and submitted a £2.1m Expression of Interest to Department for Levelling Up, Housing and Communities (DLUHC) and the Department for Environment, Food and Rural Affairs (DEFRA) to the Local Nutrient Mitigation Fund to develop further phosphate mitigation projects including:
 - a. Further investment in integrated wetlands
 - b. A new pilot scheme to provide grants to support riparian buffer strips
 - c. A new pilot scheme to replace antiquated septic tanks with modern and efficient Package Treatment Plants
 - d. Developing a new pre-application service to support private schemes brought forward by developers
25. The Council has been a driver for supporting improvement around the Nutrient Management Board and has invested in a significant national influencing role to progress river restoration.

Cabinet Commission – Restoring the River Wye'

26. The Council has actively lobbied government for a Water Protection Zone (WPZ) and, following a Full Council resolution on 22 Jan 2022, the Leader of the Council formally wrote to Rebecca Pow MP, Parliamentary Under Secretary of State for DEFRA seeking a WPZ for the River Wye and Lugg Catchment. This request was rejected.
 - a. <https://www.herefordshire.gov.uk/downloads/file/23397/water-protection-zone-riverwe-and-lugg-catchment-letter-to-r-pow-feb-2022>
27. As a result, a Cabinet Commission has been established to consider how the council can use its powers to progress the restoration of the Wye and Lugg and to identify an acceptable way forward.
28. On 29 September 2022 Cabinet agreed the Terms of Reference (Appendix 1) and Membership for the 'Cabinet Commission – Restoring the River Wye'.
29. The terms of reference were developed in consultation with Powys County Council (PCC), Monmouthshire County Council (MCC), Forest of Dean District Council (FoDDC). Natural England (NE), Environment Agency (EA) and Natural Resource Wales (NRW) also provided comments.
30. The Commission reconvened informally on the 7th September 2023. This was the first informal meeting of the Commission since the May 23 Election. Cllr Swinglehurst being the new Member for Herefordshire and Cllr Fraser the new member for Forest of Dean. The Commissioners noted the following changes since March and the Herefordshire Cabinet report:
 - a. The Ministerial Roundtable in May
 - b. The Agency Review of Governance of NMB
 - c. The Commitment to a Secretary of State led plan for the Wye
 - d. The decision not to agree a cross border task force

- e. Further progress on the Welsh national action plan
 - f. Further progress on securing governance of Welsh NMBs
 - g. The Levelling Up Bill in England
 - h. The review of permits in Wales
31. Commissioners considered how best they could support these processes and narrow down to fill in any remaining gaps. Now that there is a national commitment to a plan for the Wye, no further purpose would be served by pressing on with the Commission's own plan for the river. Rather the desire was to ensure the wider plans were resourced, deliverable, likely to be effective and could command public acceptance.
 32. The remaining gaps fell in the arena of "place based scrutiny of public services" ensuring the plan is a good one and political articulation of the expectations of Councils on behalf of their residents particular on resourcing and securing action. Commissioners saw making representation /acting as a conduit from the local frontline to government, where necessary as a key role for them. The structure linking through to Welsh Government (WG) make this possibly easier in Wales, but could also be useful in addressing any cross-border complexities, as well as filling real or perceived gaps on the English side.
 33. Depending on how the NMB governance discussion falls joint public scrutiny activity could usefully take place within NMB. However, if the new NMB governance arrangements did not give adequate room for the role of elected members in undertaking scrutiny then consideration would be given to establishing a joint Wye Catchment Scrutiny Committee of all the Councils. In which case, officers from the three Councils would then prepare a short options paper for the Commission to consider.
 34. Commissioners discussed extending an invitation to Bannau Brycheiniog (Brecon Beacons National Park Authority) to join the Commission as a fifth LPA and Commissioners wished to do this.

House building

35. The latest RePhokus report (2023) shows an excess of 1,700,000kg of Phosphate entering the Wye Catchment each year. We now know just 800kg of mitigation is needed to meet our entire Local Plan Housing need of 4,400homes. With 450kg of offset already in train, the gap to fill is just 350kg of offset.
36. We all want to be assured of high environmental standards, however, this means the maximum potential impact, without further mitigation, is less than 0.023% of excess Phosphate entering the catchment each year.

The Impact of Intensive Poultry Farming

37. There has been widespread media and public concern about the impact of intensive poultry units within the catchment.
38. The design and construction of new development must take into account important characteristics of the environment and conserve, preserve or otherwise respect them in a manner that maintains or enhances their contribution to the environment, including their wider context. New development should demonstrate an efficient use of resources. It should respect wider natural corridors and other natural areas, providing green infrastructure where necessary. (Landscape Policy LD1-4 Herefordshire Local Plan Core Strategy 2011-2031)
39. In achieving the above, the following will be considered:

- a. The effect of the proposal on the landscape including AONBs and any mitigation/ enhancement that is necessary or desirable
 - b. The impact on any protected sites (natural and historic sites and heritage assets and potential for avoiding and/ or mitigating any impacts, or providing enhancement, should the development be acceptable
 - c. The requirements of the management plans of the AONBs
 - d. Whether the existing infrastructure is adequate- additional provision will be required where it is not.
 - e. Whether the development is at risk from flooding, whether it can be permitted taking into account any risks, and the sequential approach and any mitigation that may be necessary to ensure the development is safe and flood risk is not increased elsewhere
 - f. The impact of the development on any land contamination or risk to the development from ground instability including the mining legacy- Proposals must undertake appropriate remediation measures and verification works where contamination and /or stability issues are identified
 - g. The potential for the development to cause pollution and any mitigation measures to avoid pollution or make environmental improvements where existing problems occur
 - h. The provision of water supply and the development's impact on groundwater, watercourses and any protected abstractions
 - i. Any potential impact on the sterilisation of mineral resources and consideration of the potential for the prior extraction of those mineral resources ahead of development
 - j. Proposals for waste minimisation and management
40. Development that is not able to be satisfactorily accommodated in respect of the above will not ordinarily be permitted Herefordshire takes its responsibility to the environment seriously and we also value our rural economy. Therefore, any proposals that might result in the intensification of farming activity must demonstrate full nutrient neutrality. Since the nutrient neutrality requirements came into force in 2019, Herefordshire has not approved any new expansion of intensive poultry units in the county, other than the replacement of existing units which have reached the end of life. Any new proposal, which resulted in further intensification, are highly unlikely to be approved until the river returns to health, unless it can demonstrate nutrient neutrality. The Council considers these types of applications in line with the Conservation of Habitats and Species Regulations 2017 (as amended) which set out a very clear mechanism for considering the effects of development.
41. Our catchments leaky soils are in poor health and organic matter is a key way of improving them. Herefordshire Council is working with our statutory partners and the supply chain to find ways to remove phosphate entering the environment from poultry manure; however these have to be the right solutions in the right locations.
42. Given both these factors, the key task is to improve the management of phosphate within the supply chain to prevent it entering the river.
43. The recent proposed amendments to the Levelling Up Bill to negate the need for Nutrient Neutral development were defeated in the House of Lords and the need for phosphate mitigation still stands.

Community impact

10. The work to progress the restoration of the River Wye and River Lugg will positively contribute to the following ambitions within the County Plan 2020-2024.
 - a. Protect and enhance the county's biodiversity, value nature and uphold environmental standards through "River Betterment."
 - b. Seek strong stewardship of the county's natural resources.
 - c. Invest in low carbon projects
 - d. Support an economy which builds on the county's strengths and resources
 - e. Develop environmentally sound infrastructure that attracts investment
 - f. Spend public money in the local economy wherever possible
11. Farming, agriculture, home building and tourist industries as well as resident access to countryside leisure amenity are all essential to the vibrancy and life of rural communities. The restoration of both the River Wye Catchment will enable help assure the vibrancy and future prosperity of all our communities.

Environmental Impact

12. The River Wye and River Lugg are considered important in terms of nature conservation, as a consequence both rivers are designated as Sites of Special Scientific Interest (SSSI). In addition the lower stretch of the River Lugg; from Hope under Dinmore, along with the River Wye are also designated as a Special Area of Conservation ("SAC") under the European Community Habitats Directive (Council Directive 92/43/EEC).
13. The special features for which the River Wye is designated include a range of aquatic habitats and species. Improving the water quality will support the council's commitment to address the climate and ecological emergency through the protection and enhancement of these, and other important wildlife habitats.
14. The Integrated Wetlands project has been designed to enable Nutrient Neutral Development in the River Lugg SAC by enabling nutrient neutral development and to provide a net river betterment. The net improvement to the river quality will be delivered through the reservation of 20% of the phosphate credits for the river betterment.
15. In addition to improving water quality in the River Lugg, the wetlands will also support the Council's commitment to address the climate and ecological emergency as the wetlands will also become excellent wildlife habitats and will help to sequester local carbon emissions.

Equality duty

16. Under section 149 of the Equality Act 2010, the 'general duty' on public authorities is set out as follows:

A public authority must, in the exercise of its functions, have due regard to the need to –

 - a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
 - b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;

- c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 17. The public sector equality duty (specific duty) requires us to consider how we can positively contribute to the advancement of equality and good relations, and demonstrate that we are paying 'due regard' in our decision making in the design of policies and in the delivery of services.
- 18. As a committee report this will not have an impact on our equality duty.

Resource implications

- 19. There are no resource implications associated with providing this progress update to the Environment and Sustainability Scrutiny Committee.

Legal implications

- 20. The legal framework around nutrient neutrality is set out in other parts of this report. It is within the remit of the Environment and Sustainability committee to consider stewardship of natural resources, green spaces, integrated wetlands & water quality.

Risk management

- 21. There are no risks associated with providing a progress update to the Environment and Sustainability Scrutiny Committee

Consultees

- None

Appendices

- Appendix 1 - Re-focusing Phosphorus use in the Wye Catchment (RePhOKUs) May 2022
- Appendix 2 - Map of the River Wye Special Area of Conservation (SAC)
- Appendix 3 - Soil Phosphorus Status and Water Quality in the River Wye, Phase 2: Land Use Change and Phosphorus Balances in the Wye Catchment (RePhOKUs) March 2023
- Appendix 4 - DCWW Source Apportionment Modelling issued February 2023 SAC Rivers:
 - <https://corporate.dwrcymru.com/en/community/environment/river-water-quality/sac-rivers>
- Appendix 5 - River Wye and Lugg SAC SSSI assessment of indicative site condition using CSMG - Natural England May 2023

Background papers

- River Wye SAC Nutrient Management Plan Phosphate Action Plan November 2021
 - <https://www.herefordshire.gov.uk/downloads/file/23069/river-wye-sac-nutrient-management-plan-phosphate-action-plan-november-2021>
- Cabinet Commission Prospectus for our River Restoration – Cabinet Report 03/03/23

- <https://councillors.herefordshire.gov.uk/documents/s50108618/Cabinet%20Commission%20Prospectus%20for%20our%20River%20Restoration.pdf>
- Cabinet Commission - Restoring the Wye – Cabinet Report 29/09/22
 - <https://councillors.herefordshire.gov.uk/documents/s50103959/Cabinet%20Commission-%20Restoring%20the%20Wye.pdf>
- Nutrient Certainty - Luston Integrated Wetland – Cabinet Report 28/07/22
 - <https://councillors.herefordshire.gov.uk/documents/s50102764/Nutrient%20Certainty%20-%20Luston%20Integrated%20Wetland.pdf>
- Nutrient Certainty – Cabinet Report 26/05/22
 - <https://councillors.herefordshire.gov.uk/documents/s50100959/Nutrient%20Certainty.pdf>
- Phosphate Credit Pricing and Allocation Policy Cabinet Report 26/05/22
 - <https://councillors.herefordshire.gov.uk/documents/s50100960/Phosphate%20Credit%20Pricing%20and%20Allocation%20Policy.pdf>
- The construction and management of Integrated Wetlands as tertiary treatments for waste water treatment works to reduce phosphate levels within the River Lugg catchment area – Cabinet Member Report 10/08/20
 - <https://councillors.herefordshire.gov.uk/documents/s50081736/The%20construction%20and%20management%20of%20Integrated%20Wetlands%20as%20tertiary%20treatments%20for%20waste%20water%20treatm.pdf>

Report Reviewers Used for appraising this report:

Please note this section must be completed before the report can be published		
Governance	John Coleman	Date 15/09/2023
Finance	Click or tap here to enter text.	Date Click or tap to enter a date.
Legal	Sean O'Connor	Date 13/09/2023
Communications	Mark Batchelor	Date 13/09/2023
Equality Duty	Click or tap here to enter text.	Date Click or tap to enter a date.
Procurement	Lee Robertson	Date 14/09/2023
Risk	Kevin Lloyd	Date 14/09/2023
Approved by	Mark Averill, Service Director Environment and Highways Date 15/09/2023	

Please include a glossary of terms, abbreviations and acronyms used in this report.