

### **Nutrient Management Board Update**

Organisation:	Environment Agency
Officer:	
Date submitted:	September 2022
Actions on Phosphate Action Plan contributing to:	<ul style="list-style-type: none"> <li>• Monitoring, evidence &amp; modelling</li> <li>• Regulation, advice &amp; guidance (agriculture &amp; water resources)</li> <li>• DCWW – improvement &amp; regulation</li> <li>• Investigations based on geographic “hot spots”</li> <li>• Targeted projects including natural flood management &amp; citizen science</li> <li>• WPZ</li> <li>• Integrated wetlands</li> <li>• River Wye management catchment integrated data analysis report</li> </ul>
Actions on Phosphate Action Plan recent work has contributed to:	All the above, including input to TAG sub-groups and strategic work with Defra to scope longer-term policy and funding initiatives.
Brief progress update on activities	<p><b>Monitoring, evidence &amp; modelling</b></p> <ul style="list-style-type: none"> <li>• In August we released our latest report: <a href="#">River Wye Management Catchment Integrated Data Analysis Report</a> Key recommendations include reducing nutrient input across the entire catchment, with a focus on diffuse sources during rainfall events, collecting more data (including sediment nutrients), further investigation of manure pathways/impacts and land use changes, and appraising options such as tree planting and sustainable water resource management to mitigate poor water quality.</li> <li>• We continue to manage and update our public facing webpage: <a href="#">River Wye Water Quality - Environment Agency - Citizen Space (environment-agency.gov.uk)</a></li> <li>• 11 sondes (deployed in the Wye, Arrow and Lugg catchments) have provided continuous water quality monitoring – improving our temporal and spatial data resolution. We are looking to secure funding to deploy the sondes next year.</li> <li>• We implemented our River Wye high temperature and algal bloom <a href="#">early warning system</a>. We deployed staff in response to high river temperatures, reports of dead fish, low dissolved oxygen levels and pollution.</li> <li>• Sonde data has been valuable in improving our response to prolonged dry weather (PDW) incidents and provided a base for more positive engagement with our stakeholders e.g. by helping others (esp. fisheries &amp;</li> </ul>

angling groups) make informed decisions. Our timely, responsive information and advice may have reduced some potential impacts this summer.

- In addition to our Field Monitoring team's routine sampling of water chemistry and invertebrates, we have carried out 8 macrophyte surveys, 18 RAPPER (Rapid Assessment of PeriPhyton Ecology in Rivers) surveys, 16 algal samples, 8 river habitat surveys and 1 walkover investigation following sonde ammonium peak.
- We have committed to chairing the Technical Advisory Group (TAG) 'evidence subgroup' and will therefore be reducing the frequency of our integrated data analysis reports as a result (see below for more detail).
- In response to the need for scientific certainty in the action plan, and with regards to the "Dutch Ruling" and the 2015 Consent Order, we have scoped potential modelling improvements. We hope to take this forward with the TAG evidence subgroup to improve levels of certainty and demonstrate current measures/mechanisms will achieve conservation targets or conversely, that additional measures such as a water protection zone (WPZ) might be needed.
- Revised Polluter Pays (Fair Share) principles have been signed off by DEFRA. We are awaiting EA / PR24 guidance which we hope will be released in the next few weeks.

#### **Regulation, advice & guidance & regulation**

- There have been 56 full farm inspections so far this year, resulting in 20 actions across 11 farms. All farms with actions are followed up. The number of farm inspections will increase over Q3 and Q4 as PDW and drought pressures subside, vacant posts are filled and newly trained officers gain experience and increased knowledge. Access, particularly to poultry units was restricted earlier in the year due to Avian Influenza. The numbers reported this year are for full farm inspections which cover multiple regulatory regimes and include comprehensive assessments of farm infrastructure and management practices/records. These differ from the Soil Patrol approach last year of a 'wide and fast' check of farms and high-risk sites. The data from soil patrol, additional remote sensing (satellite/LiDAR) and the Wye Water Quality Data and Analysis Reports has been used to inform this year's full inspection list.
- A total of 93 compliance inspections have been carried out by the Environment Agency in the Wye Management Catchment this year, which has identified 20 non compliances. In total of 343 inspections have been completed across West Midlands due to PDW and drought. We have completed the New Authorisations programme in the Wye catchment so most previously exempt activity is now licensed.

#### **Dŵr Cymru Welsh Water – improvement & regulation**

- For Dŵr Cymru Welsh Water (DCWW) there would normally be 6 operator self-monitoring (OSM) sites and 12 descriptive inspections per year. With the emphasis on the Wye catchment the planned number has been

increased to 20 OSM and 20 descriptive inspections. Due to resource allocation to PDW and drought, inspections these will be carried out in Q3 and Q4.

- A review of DCWW 2020 data for event duration monitors (EDM) for spills to the environment has been completed. The response by DWCC will be expected by the end of September 2022. This review focused on all network combined sewer overflows with more than 40 spills a year.
- A national trial of inspections focusing on pumping stations and combined sewer overflows (CSO) with another water company has just been completed and it is expected to add a number of these for DCWW in 23/24, when new procedures have been clarified.
- SIMCAT/SAGIS/Optimiser for the Wye model have been updated and are being used to inform the 2024 Price Review (PR24) Water Industry National Environment Programme (WINEP). The updated models are planned to be shared at end of September via a data sharing licence. Citizen science data has been shared with model builders to check validation against model predictions.

#### **Investigations based on geographic “hot spots”**

- We are developing a project to improve spatial representation of agricultural data.
- The first prototype has been developed for a Wye catchment risk mapping tool, which, in combination with the work being done by the national remote sensing team, will improve how we target resources and interventions.
- Findings of the River Wye Management Catchment Integrated Data Analysis Report have recommended a focus on 5 functional groups of waterbodies: River Arrow near Kington; River Arrow near Pembridge and Curl Brook; River Lugg and tributaries near Presteigne; Little Lugg and Withington Marsh Brook; River Frome.

#### **Targeted projects**

- We 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.
- Wye P+ Project (2023-24 Water Environment Improvement Fund), in partnership with the Wye & Usk Foundation is pending funding allocation. There are 4 parts: farmer education; supply chain; natural flood management in a sub catchment and land drains (arable and poultry).
- Resilient Wye Water project is a new project focusing on sustainable water resources and abstraction in the Wye. We will be looking to work with partners shortly.

#### **Integrated wetlands**

- We have developed a Regulatory Position Statement to streamline procedures for implementation of the nutrient wetlands.

### **Additional activity**

- We have been working with EA national and Defra to explore opportunities for further strategic support, funding, pilot projects and innovative approaches to permitting. Draft proposals are currently being scoped.
- Salmon patrols have been carried out to provide advice/guidance to anglers around the new byelaws, check river temperatures, investigate reports of poaching and follow up reports of dead salmon seen in the river. Patrols will continue as the salmon migration/spawning season begins next month targeting 'pinch points' where it is easy to access the river to poach.

### **River Wye management catchment integrated data analysis report**

- In January 2022, we published our first River Wye Management Catchment Integrated Data Analysis Report and have published subsequent reports every three months since. The aim of the reports is to bring data from citizen scientists, monitoring sondes and autosamplers together with existing datasets to contribute to a shared understanding and ownership among stakeholders of the issues and actions required. The reports have been vital in kick-starting actions into motion, and we thank those who have read, shared and provided feedback.
- At the June Nutrient Management Board meeting it was agreed that there will be sub-groups of the TAG to progress key themes of the Phosphate Action Plan and work collectively with partners and experts to resolve gaps and take opportunities identified.
- The Environment Agency is chairing the 'evidence subgroup' that is key for building shared understanding of the workable solutions, their timeliness and effectiveness. We are now focusing more resources on this subgroup and will publish our integrated data analysis reports every six months instead of three months, with the next report due in the new year. We have received positive feedback from a range of people on the value of our integrated data analysis reports and are pleased to hear they have been useful for everyone's collective understanding of the problems and what the data is showing us.