

**PLACE, SUSTAINABILITY AND CLIMATE CHANGE  
SCRUTINY COMMITTEE  
24 FEBRUARY 2023**

**Phosphate Levels in Protected Riverine Special Areas of  
Conservation – Update**

**Appended Report**

**1. Background**

Phosphorous is a nutrient that occurs naturally in low levels and is necessary for the healthy functioning of rivers. It is released slowly at low levels from natural sources, from natural bankside erosion for example. However, in high levels it is the most harmful nutrient in freshwater and can lead to eutrophication - where an excess of nutrients causes a dense growth of plant life and subsequent death of animal life due to lack of oxygen.

The main sources of phosphorus are agriculture (found in fertilisers and runoff from manure) and sewage (from homes and other developments that generate wastewater containing sewage, food waste and cleaning products).

Whilst farmland is naturally able to absorb phosphorus, some of the land in Wales has now reached a saturation point and is unable to absorb the excessive quantities. Growing populations and increased housing have resulted in rising levels of phosphorus in wastewater. This is causing damage to the rivers and ecosystems it supports.

In January 2021 Natural Resources Wales (NRW) published new targets to reduce river phosphate levels in special areas of conservation (SAC) across Wales.

The review followed evidence from the Joint Nature Conservation Committee that warmer and drier weather, predicted because of climate change, could reduce river flows during the summer and therefore increase phosphate concentrations. It is also based on new evidence about the damaging effects of phosphates to water ecosystems and species.

At present, over 60% of waterbodies in Wales fail against the tighter targets, and Welsh local planning authorities are being asked to take more action to avoid further deterioration of the environment. It means any proposals for development within SAC river catchments - in particular those that will generate increased volume or concentration of wastewater - must now prove that the design will not contribute to increased phosphate levels.

## **2. Impact of the guidance on planning within Carmarthenshire**

Developments within the catchments of the protected rivers may have an impact through increasing phosphate levels including through limited capacity to connect to the public sewerage system. As a result, alternative solutions must be found that will meet the new targets, either by being phosphate neutral or bettering phosphate levels.

In Carmarthenshire, the Afon Teifi, Afon Tywi, River Wye and Afon Cleddau are designated as riverine special areas of conservation. At present the Afon Teifi, river Wye and Afon Cleddau are failing against NRW's targets.

The Impact arising from phosphates and the NRW Guidance in relation to protected Riverine SACs is a potential strategic barrier to the future growth of communities within affected catchments. It is noted that different catchments have different status with the Teifi and Cleddau failing and the Tywi catchment currently passing. Approximately 109 planning applications in Carmarthenshire have been captured by the implications of the guidance, but also poses significant challenges in the progression of the Revised LDP. This has required innovative evidence to be developed for the 2<sup>nd</sup> Deposit LDP to be produced.

Other affected authorities include Monmouthshire, Pembrokeshire, Ceredigion, Powys, Flintshire, Wrexham and the Brecon Beacons National Park.

## **3. Actions taken by Carmarthenshire Council**

In recognising the strategic significance Carmarthenshire has and continues to lead the way in Wales in developing approaches aimed at enabling developments to proceed. In outline, the Authority has adopted a four-phase integrated approach and the progress to each phase is set out below:

- **Phase 1 - Strategic Assessment – Development of a Phosphate Calculator, Phosphate Mitigation Guidance and Catchment Phosphorous Reduction Strategies**

The publication of Carmarthenshire council's phosphate calculator in March 2022 is the first (and to date the only) of a kind in Wales. The Calculator is accompanied by Mitigation Guidance. This also represents the only example in Wales and has been developed as part of a proactive approach to provide support to planning applicants and developers in identifying mitigation to allow planning applications to be determined and approved. We are also supporting and working collaboratively with Pembrokeshire and Ceredigion on a sub-regional calculator to reflect the cross-order implications and the collaboration being undertaken through the Nutrient Management Boards. Our approach reflected the absence of an All-Wales approach and guidance. NRW are currently developing the tools at an All-Wales approach, based upon the platform that CCC has developed, and which allows us the opportunity to influence development as an early adopter of the approach. However, the All-Wales approach is not likely to be approved by the WG until the summer 2023 at the earliest.

An interim Catchment Phosphorous Reduction Strategy has been prepared to support the preparation and progress of the Revised LDP, it seeks to identify a range of mitigation measures, as well as wider measures that are outside of the remit of the Council and lie with other responsible bodies in relation to the wider riverine environment. These will be linked to a series of delivery milestones designed to ensure that the implementation of suitable mitigation happens in a manner that facilitates the release of development in the Plan. This represents a key step in identifying mitigation necessary to ensure the release of development over the LDP period.

Recognising the challenges associated with the phosphate guidance the Councils response included the appointment of a Nutrient Management Officer – this role has supported the strategic response required.

- **Phase 2 - Collaboration - Establish the Nutrient Management Board and development of the Nutrient management plan.**

A Nutrient Management Board (NMB) has been established the Afon Tywi NMB (first in Wales) and we are board members of the Afon Teifi and Cleddau NMB's along with the regulators, utility companies etc. The Board will play a critical role in addressing the issue and in solution finding overseeing the development of Nutrient Management Plans for the area and provide a forum for the development of solutions including credit trading. We have helped to establish and are members of the Tywi NMB and the Cleddau NMB and represent the interests of Carmarthenshire at these boards. The boards will be supported by a Technical Working Group made up of partner and specialist bodies and a Stakeholder Group which will involve local group, communities and individuals and will enable us to explore solutions at a local level and through Citizen Science based approaches.

A Programme Manager has been appointed to support the work of the NMBs – this represents a key deliverable to take forward the complex mechanisms necessary in the effective operation and work of the Boards.

- **Phase 3 - Develop mitigating solutions - Work with partners to develop test solutions that are acceptable to the regulators.**

As a result of the publication of the calculator and mitigation guidance applicants who have previously been caught by the guidance have been given the opportunity to submit details of mitigation proposals for assessment.

We are working on opportunities for Credit Trading and are undertaking a feasibility study to further develop this approach. This would on delivery of mitigation schemes allow developers/applicants to buy or access mitigation to allow their development to proceed.

We continue to work with developers, partners, and regulators to identify and broker new approaches such as potential for surface water diversion which in sewered areas can reduce storm water events that have a detrimental impact on phosphate loading.

We are currently identifying potential locations for mitigation solutions including larger landscape solutions such as constructed wetlands. Such approaches will require collaboration with regulators but also critically Dwr Cymru to ensure the location maximises the potential for phosphate removal.

- **Phase 4 - Develop policy, approaches, and solutions**

We continue to facilitate and guide policy updates to the implementation of NRW guidance with the regulators. This has been successful in putting in place a positive policy approach to overnight accommodation e.g., employment, schools, community activities. Work has been undertaken with our consultants to understand/challenge how guidance is implemented within the Tywi catchment given its non-failing status.

We have sought to adopt a positive approach to certain planning applications including those for extensions to dwellings which were previously being held up by the NRW Guidance.

In July 2022 in recognition of the leadership we have demonstrated in Carmarthenshire, we were invited to the Phosphate Solutions Summit held by the First Minister at the Royal Welsh Show. A further summit will take place in March 2023; however, we are continuing to engage with regulators and the Welsh Government to influence the future regulatory framework and in particular application on any national guidance to address the issue. In this respect the NMBs for the Tywi, Teifi and Cleddau are also represented on the WG Oversight Group charged to respond to the issues of phosphates as is a representative of Carmarthenshire in recognition of our work in this area.

We are also represented on national collaborative groups and have led and chaired an Additionality Working Group which successfully facilitated the changes to the NRW Guidance on the issue of overnight accommodation.