RIVER WYE NUTRIENT MANAGEMENT PLAN

Nutrient Management Plans in Rivers

Purpose of Nutrient Management Plans two-fold:

To manage the nutrients entering Natura 2000 waterbodies to help secure conservation and Water Framework Directive objective

To provide mitigation for new potentially polluting development that would otherwise prevent the water body from achieving its objectives

Second objective was the main driver for the adoption of NMPs

Nutrient Management Plans (NMPs) one of a suite of measures intended to secure the conservation and WFD targets for water bodies but most actively pursued because they were needed to enable development

River Wye Nutrient Management Plan

Created following agreement between Natural England and the Environment Agency in 2014

Enabled Herefordshire Council to adopt its Core Strategy Local Development Plan despite failure of Wye tributary, the River Lugg, to achieve its conservation objectives

Plan focuses on measures to reduce phosphate pollution, although other nutrients also pose risk

Two main measures:

Upgrade sewage treatment plants with phosphate stripping

Catchment Sensitive Farming - voluntary, grant funded measures to reduce direct and diffuse phosphate pollution from agriculture

NMP delivered by a Nutrient Management Board

Board made up of numerous organisations including the competent authorities, Dwr Cymru, NFU and CLA and others

Dominant influence of NFU and CLA ensured no non-voluntary measures imposed on farmers

No means of monitoring the success of the NMP

Following adoption of the NMP, the Environment Agency reduced number of monitoring points on the Wye from 48 to 8

Water testing carried out every three months and results presented as the mean for three year periods. EA’s most recent catchment data still from 2019

Natural England has not carried out any monitoring of the ecological condition of the Wye since 2010

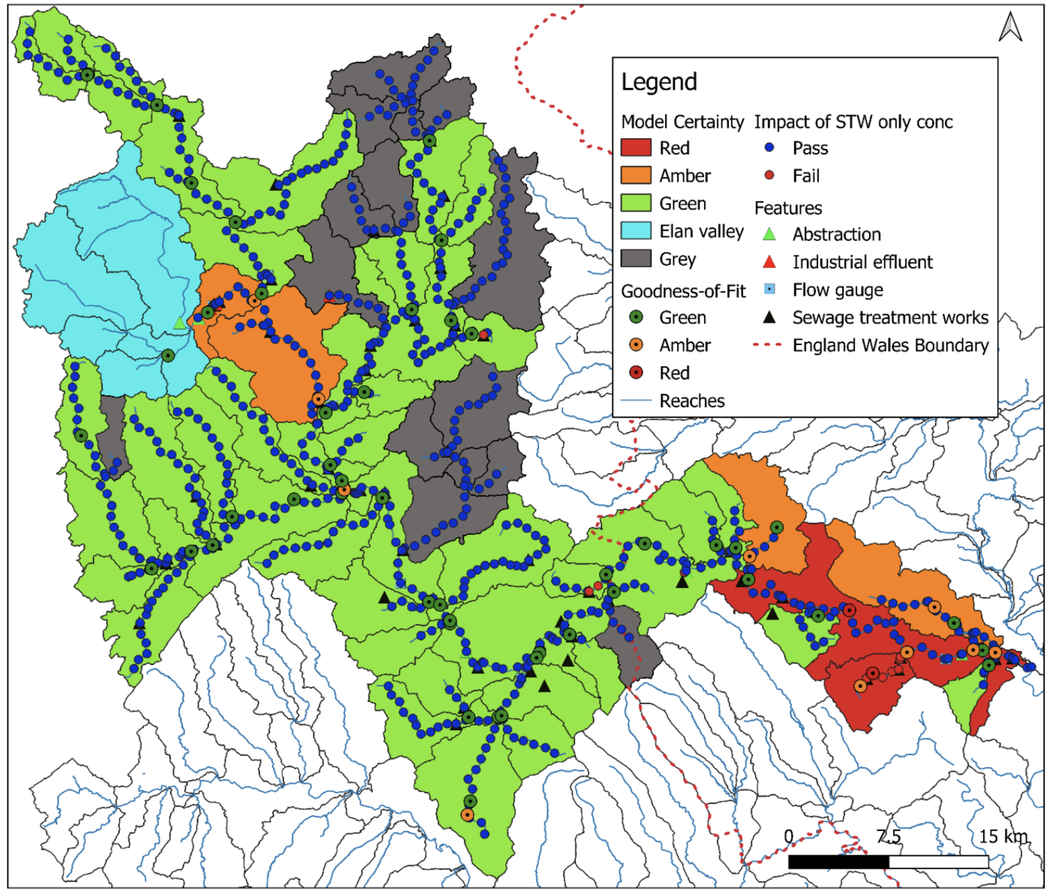
When NMP was adopted, phosphate pollution was apportioned 50:50 between the water industry and agriculture

By 2020, improved modelling showed agricultural pollution a much bigger contributor to pollution - at least 66%.

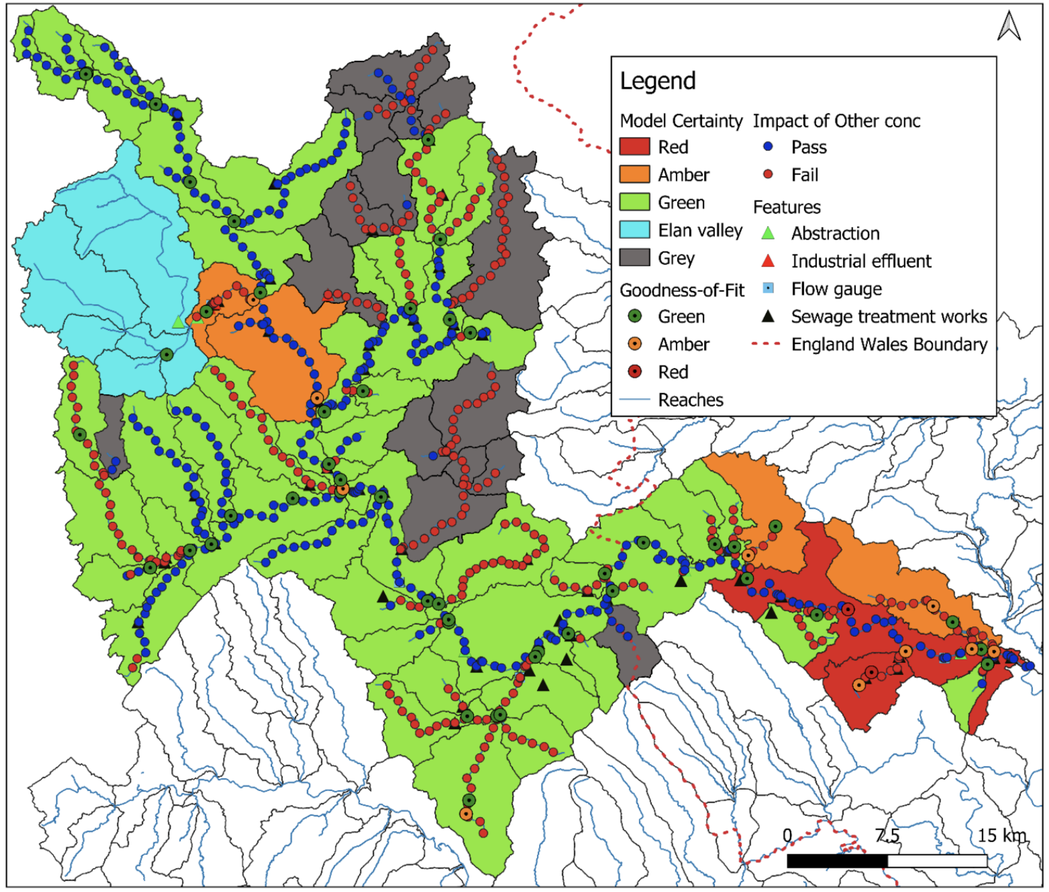
At the same time improvements to sewage treatment plants were reducing water industry share

Evidence from Lancaster University’s Rephokus project published 2021 showed that agricultural pollution was responsible for some 75% of the phosphate pollution of the Wye

STW only vs no STW



Compliance within the upper Wye for STW inputs only.



Compliance within the upper Wye for non-STW inputs only.

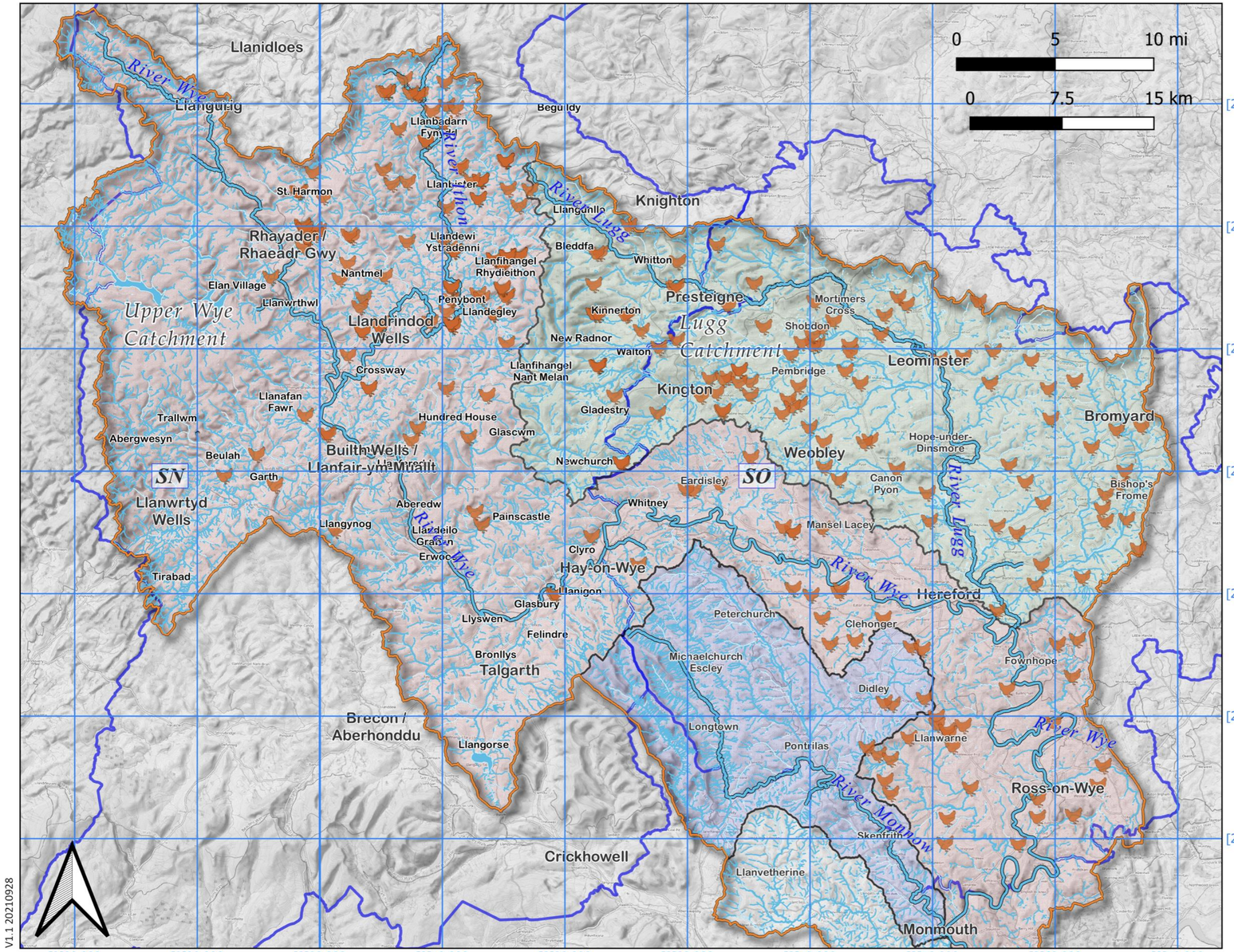
Key message - compliance with the JNCC WQ targets cannot be met by improvements to DCWW assets only.

The Rephokus study also found that there is a massive store of legacy phosphate in the soils of the Wye catchment, equivalent to 3,000 tonnes per annum

Without measures to draw down the phosphate and prevent additional phosphate from entering the soil this legacy store will increase

Problem particularly acute in the Wye catchment because of the very large number of intensive poultry units. Poultry manure contains higher proportion of phosphate than any other farm manure

Wye Catchment Water Quality Monitoring Citizen Science Project: Intensive Poultry Units - Herefordshire and Powys



Source: Herefordshire Campaign to Protect Rural England/ Campaign for the Protection of Rural Wales

2018 Dutch Nitrogen Judgement (Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu Case C-293/17). Decision makers in Natura 2000 cases could not rely on plans - such as NMPs - as mitigation for polluting new development if plans not demonstrably effective

Herefordshire Council could no longer rely on the NMP in Habitats Regulations Assessments for new development

Effective moratorium on development in the Lugg catchment

Several other planning authorities caught out by the judgement

And then in Herefordshire:

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In 2020, massive algal blooms destroyed 95% of one of the River Wye’s qualifying features water crowfoot (ranunculus Fluitans) with knock on effects for the whole river ecology.

Natural England yet to accept the Wye is failing its conservation objectives because phosphate targets still met (disputed by Citizen Scientists)

No clear understanding of the cause of the algal bloom. Fuelled by excess nutrients, but exacerbated by low water levels and high summer temperatures

Abstraction and climate change likely to be contributors

The NMP revised, but still no new measures to tackle the main problem of agricultural pollution

So the NMP is failing deliver on either of its objectives

It is not helping to restore the river to good condition

And now can’t be used as mitigation for new development

Is there a future for NMPs?

Yes, but with more robust evidence-base, decision-making that prioritises the river and better regulation and enforcement