

The Phosphate Challenge For New Development



Phosphates pollute the River Dee Special Area of Conservation (SAC)



NRW has requested Habitat Regulations Assessments as part of the planning application determination process to ascertain impacts of phosphates



Currently all applications for new development in Wrexham are on hold because of this. This is untenable for several reasons not least of which is the impact on economy and rolling out of LDF's development strategy

What Causes Phosphate and Why is it a Problem?

Phosphates pollute the River Dee Special Area of Conservation (SAC)



People cause impacts through foul waste



Surface water drainage causes impacts



Certain uses like agriculture causes impacts (through surface water run off)



Options and **Solutions** for Assessing the Issue

- ✓ Ascertain whether existing WWT Plants can deal with issue
- ✓ Accept people already living in the SAC are accounted for
- ✓ Calculate how many new people will travel into the SAC arising from new development

- ✓ Work on basis that phosphates produced by new people have to be treated
- ✓ Consider options for on-site treatment – preferred option
- ✓ Consider options for off-site treatment – fall back option

Next steps

Assess how mitigation can be delivered in practice

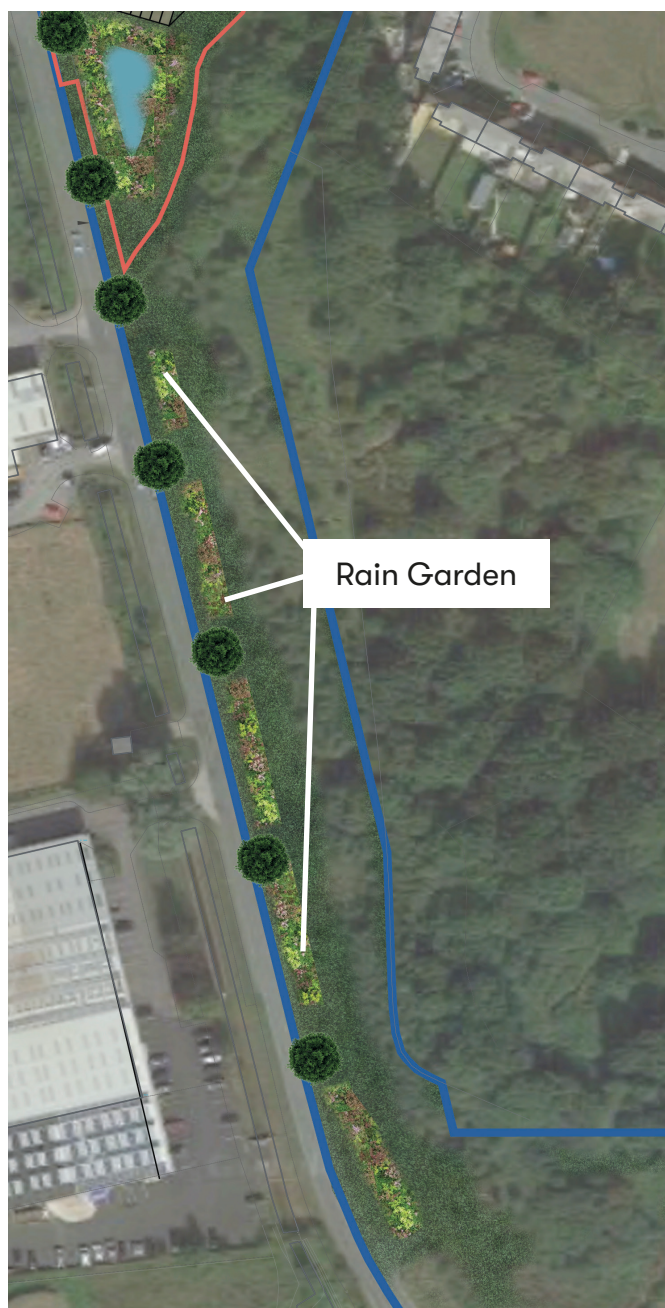
Delta Simons, Barnsley Marshall and Plan Red have a plan to address issue

Meet with Wrexham Council to explain our plan

FIREM and its professional team to take the plan forward with NRW and Wrexham Council

Apply the plan and solutions to live planning applications

Phosphate Solution Case Study - Site 5 Wrexham Industrial Estate



Phosphates impact

- Phosphates Impact from Change in Land Use = **2.89 kg/pa**
- Mitigation Solutions Onsite SuDS Systems = **-2.86 kg/pa**
- Net Impact = **0.03 kg/ pa or 0.016 mg/l**
- Guidance on Acceptable Levels = **0.1mg/l**



Phosphates calculations

Additional Workforce (calculated using residential phosphates calculator and reduce by 50% to reflect employment use) = 0.32 kg/l or 0.17 mg/l

Further offsetting options = re wilding and additional SuDS features on FIREM owned land (not used in this case study)

