

The River Leam Water Framework Directive Failures-The Evidence





What's Driving the Status





Phosphates - A common theme ?





Phosphate Apportionment Point source vs Diffuse.

- Sophisticated modelling package for whole catchments
- Theoretically removes point sources of Phosphate
- Quantifies Phosphate input from diffuse sources



Point Sources – Sewage Works





Diffuse Sources of Phosphates

Small Sewage discharges and private treatment plants
 Combined sewer overflows
 Agriculture



Apportionment – The results



Improvements to Modelling

- New refined modelling package due in the new year
- Enables us to more accurately estimate the inputs from different diffuse sources
 Should be able to identify the inputs from agricultural sources



Phosphate from Agriculture

Sources –
 Fertiliser
 Livestock Manures

Pathways –
 Surface run off of recently spread fertilisers
 Soil Erosion
 Soluble Phosphate in drainage channels
 Direct deposit







The other failures

Rains Brook and River Stowe – Invertebrates
 Monitoring and data collection issues
 Possible impacts from Urban run off

River's Itchen and Stowe – Dissolved Oxygen
 Water resource problems
 Impacts from Nutrient Enrichment

