

pCEA Nutrients Chapter

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Supporting Documents

- Agriculture
- Industry
- Non-Agriculture Diffuse
- Water Industry

Standards(Phosphorus)

River Type	High Ecological Status (MG/L)	Good Ecological Status (MG/L)
Low alkalinity (altitude less than 80m)	0.03	0.05
Low alkalinity (altitude 80m and above)	0.02	0.04
High alkalinity	0.05	0.12

Phosphorus

Sector	England Losses (Tonnes)	England & Wales Losses (Tonnes)
Sewage Treatment	36,500	40,000
Industry	No figures	500
Agriculture	8,500	No figures
Detergents	1,500(New figs)	1,700 (New figs)
Misconnections	1,300	1,400

Reducing P - Ag

- Advice, Enhanced ES & Regulation
- Enhanced ES and Regulation
- Regulation Only

Reducing P - Industry

- Generic Assessment of:
 - Process Optimisation/Increased Efficiency
 - Substance Substitution
 - End of Pipe
 - Reduced Activity/Production

Reducing P – Non-Ag

- Detergents
- Misconnections
- SUDS
- General Binding Rules

Reducing P – Water Industry

- Chemical Treatment by plant size
- Biological Treatment by plant size

Scenarios

- All identified measures
- 22,000 tonnes - £690m
- P in laundry detergents
- 1,500 tonnes - £3.7m (New Figs)

Scenarios

- Phased Ag Reductions Only
- 30% - £18.3m - 697 tonnes
- 48% - £147.1m – 1397 tonnes
- High Certainty - Low Certainty
- Chemical dosing – Ag, Non-Ag and Ind

Not Looked At/Included in pCEA

- Dishwasher detergents
- Food and Drink
- Other Urban Drainage Systems
- Forests
- Animal Feed
- Trading Schemes
- Nitrates

Cost Examples

- Less than a pound per KG for detergents
- Up to £7,000 per KG for biological treatment
- Range £8 to £1350 for the majority

CONCLUSIONS

More data awaited

Challenging

Obvious choices?