

## **DECISION-SUPPORT MODELLING FOR WATER QUALITY MANAGEMENT: A PRE-PILOT CASE STUDY FOR THE EU WATER FRAMEWORK DIRECTIVE**

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### **ABSTRACT**

The Integrated Lake and Catchment Model (ILC) was used to compare the effectiveness of existing phosphorus control measures and possible future measures to meet the objectives of the Water Framework Directive in the Wash catchment in Eastern England. Results are compared to environmental targets and investment costs. The maximum achievable level of environmental investment would fail to meet a 0.1 mg/l P orthophosphate target in rivers with high upstream urban density and low baseflow. In contrast, significant benefits can be achieved in other parts of the catchment with lower population density and high baseflow. Targeted investment in P removal would be beneficial in maximising environmental gains.