

# POLLUTION ISSUES IN THE WENSUM CATCHMENT

FACT SHEET  
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## Background:

In the UK around two thirds of the land is under agricultural production. Whilst we enjoy the products and financial benefits of that production, there are also some unwanted effects. Some 80% of rivers and 75% of groundwaters are suffering from pollution partially caused by the runoff and infiltration of agricultural fertilisers and pesticides that over the past 50 years have been used to boost output. Under European legislation 'good ecological status' is required for all waterbodies by 2015.

The overall objective of the Wensum Demonstration Test Catchment project is to assess the effectiveness of a variety of land management measures aimed at reducing diffuse pollution from agricultural activities across the whole river catchment.

## **Wensum catchment characteristics**

- It's underlain by a major Chalk aquifer
- The catchment extends 40 km west to east, 25 km north to south and covers an area of 571km<sup>2</sup> down to Norwich
- A 71km length of the Wensum is designated a Site of Special Scientific Interest and Special Area of Conservation and is recognised as one of the most important chalk river habitats in the country with over 100 plant species and a rich invertebrate fauna
- Of the 90.6 ha of 'River and Stream' habitat included in the SSSI, 99.4% is considered to be 'unfavourable and declining' mostly due to sediments, bank poaching and diffuse water pollution
- The main river channel currently has 'poor' ecological status (and is also predicted to be 'poor' status in 2015)
- 40% of the water bodies in the catchment are at risk of reaching 50 mg/l NO<sub>3</sub> (i.e. failing drinking water quality standards for nitrates). (Nitrate in rivers largely comes from runoff from agricultural fertilisers).
- 27% of the water bodies in the catchment are at risk of failing phosphorous (P) standards. (Phosphorus in rivers can come from runoff from agricultural fertilisers and from household effluent from sewage treatment works and septic tanks).



Tackling these problems calls for an 'Alliance' of land owners and managers, as well as farming and environmental organisations, government agencies and researchers.

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## What can be done to reduce diffuse pollution?

“Due to the individually minor but collectively significant nature of diffuse pollution, in order to have an impact on water quality, measures to address pollution should ideally be undertaken on a catchment wide basis. There is little point in addressing all the problems on one farm when the same problems remain unaddressed on the neighbouring farms. It will almost always be more effective to target the main problems on all of the farms within a catchment rather than all the problems on a proportion of the farms”

Source: SEPA website Farm Scale Diffuse Pollution Audit, section 2.4.

Farming is not the sole cause of diffuse pollution but it does contribute approximately 60 per cent of nitrates, 25 per cent of phosphorus and 70 per cent of sediments entering our waters, amongst other pollutants (Defra website [www.defra.gov.uk](http://www.defra.gov.uk)). Defra's England Catchment Sensitive Farming Delivery Initiative programme operates in the Wensum catchment and is encouraging land managers to undertake measures funded under Defra's agri-environmental stewardship schemes that will help to reduce diffuse pollution.

The extensive monitoring work that will be undertaken in the Wensum Demonstration Test Catchment, will help provide the 'evidence base' to assess how well these measures are working and members of the **Wensum Alliance** will evaluate the effectiveness of the various measures undertaken and develop recommendations that will help refine future agri-environmental policy to reduce pollution further.

## WENSUM ALLIANCE Research Team at UEA

The Wensum Alliance is being led by Dr Kevin Hiscock and Prof. Andrew Lovett from the School of Environmental Sciences at the University of East Anglia in Norwich. The first phase of the project runs until 31 March 2014. For further details please contact:

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If you would like to join the **Wensum Alliance** and be part of this project, please get in touch. Your local knowledge, experience, expertise and advice will be invaluable in helping to develop the right catchment and farm management solutions for reducing pollution in the Wensum catchment.

General Enquiries:-

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