



A clear solution for farmers

CATCHMENT SENSITIVE FARMING

Manor Farm Partnership

Avoiding arable run-off in Anglia

River Wensum Catchment (2)

CSFO: Stephen Haley

The initial situation

The River Wensum was a Pilot catchment in a Multi-Agency project, the fore-runner of Catchment Sensitive Farming (CSF). It had been identified as having particular diffuse water pollution from agriculture (DWPA) problems.

The Blackwater runs through part of the Manor Farm Partnership estate towards the River Wensum. The Blackwater had been identified as having particular problems, especially with sediment and phosphate pollution.

Although slopes were not excessive, there was evidence of soil runoff from fields, field headlands and farm tracks into the nearby watercourse system. Track and road crossings were also identified as problem areas.

Mitigation measures adopted.

The Wensum Pilot project helped to identify problems of DWPA on the estate. Input from the Catchment Sensitive Farming Officer (CSFO), together with help from the Environment Agency,

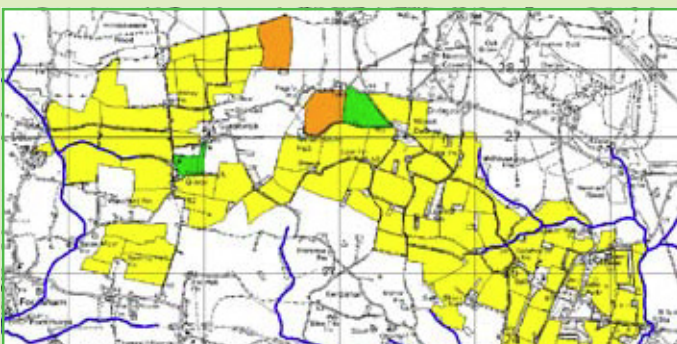


allowed for monitoring work to be carried out on the estate. This included sonds (turbidity meters) to try and ascertain the amount of suspended sediment occurred at specific rainfall events.

An Entry Level Scheme (ELS) Soil Management Plan for the farm was drawn up which showed the vast majority of the catchment to be of inherent moderate risk (yellow) fields with two high risk (orange) fields.

The ELS scheme also allowed for the adoption of field margins alongside watercourses together with approximately 7 hectares of field corners. Having seen the effect of these margins, the estate has now completed a program such that:

- 1. All watercourses on the farm now have a 6 metre margin alongside them.** Much of this work was done at their own time and expense. To reduce the amount of field run off cultivations have been reassessed.
- 2. Oil seed rape now sown using minimum tillage techniques.**



Soil management plan



Margins alongside watercourse



Use of road planings on track

3. **Stubbles are left over winter.**
4. **Contour ploughing/drilling is adopted where greatest run off risks are likely.**
5. **Work is carried out when conditions are as dry as possible** because large capacity machinery is used. This helps maintain soil organic matter and soil structure within the topsoil.
6. **Turkey muck is applied within the farm rotation.** Careful subsequent cropping ensures that nutrient run off is kept to a minimum. Problems associated with farm tracks and lanes were considered. These were found to either act as connectors between field runoff and the watercourse, or else be partly responsible for the cause of sediment runoff themselves. Several options were considered but the greatest success came from:
7. **Use of road planings.** The estate considers that the use of this material has greatly reduced or eliminated any sediment runoff from this source.
8. **Placing sugar beet pads between field and road has also reduced the amount of sediment in any runoff.**
9. **Precision farming is beginning to play a bigger role in farm management practice.** The use of satellite imagery, a very large drill with satellite capability and the use of a contractor to mark out specific soil nutrient

deficiency areas have been adopted. Following initial visits from the CSFO in the Wensum Pilot project, learning from past experiences and adoption of ELS principles, the aims of CSF are being achieved on Manor Farm, without compromising farm profitability. It is the estate's principle to farm for efficiency with consideration for the environment.

10. **The farm manager is a member of CSF Norfolk liaison group and is willing for the estate to be a demonstration farm within the Demonstration Wensum Catchment.** However, the location of such research work on the farm has yet to be agreed with the EA & researchers.

Farmer Engagement and Motivation

The owners of Manor Farm are aware of the issues relating to DWPA and had been involved in the pilot project that preceded CSF's activity in the River Wensum Catchment. Although the farming operations are intensive the farm manager is aware of his responsibilities to the surrounding environment, community and the long-term sustainability of the holding.

Catchment Sensitive Farming Officer (CSFO)

Stephen Haley

Natural England, Norwich

0300 060 0667

stephen.haley@naturalengland.org.uk

www.naturalengland.org.uk/csf

Catchment Sensitive Farming (CSF) is delivered in partnership by Natural England, the Environment Agency and Defra.



Department
for Environment
Food & Rural Affairs



Environment
Agency



Funding is from the
European Agricultural
Fund for Rural
Development: Europe
investing in rural areas.