

Best Practice Information Sheet

Soil management

Sheet 21.0a

Managing ditches

Why change?

Good ditch management can save you money and protect the environment by helping to:

- maintain optimum field drainage conditions for crop growth
- minimise sediment and nutrient transport from the field to the river
- improve the health of livestock
- highlight pollution problems early
- enhance the wildlife value of your farm.



Fenced ditch with good habitat.

Steps to success

1. **Review the current situation** by examining the management of ditches on your farm. Under **Cross Compliance** no herbicides, pesticides, nutrients or fertilisers may be spread within 1m of the top of a ditch or other watercourse, plus dredgings should be kept out at least 1m.
2. **Identify potential opportunities** for improved management of your ditches. Look out for significant or frequent brown water runoff, sewage fungus, poaching of banks by livestock and any absence of vegetation.
3. **Calculate the cost-benefit of these opportunities** by considering the benefits of improved ditch management against the cost of problems such as stock lameness, injury and waterborne disease, soil erosion, watercourse pollution and reduced habitat quality. It is a requirement of cross compliance that every farm in receipt of Single Payment Scheme (SPS) payments must complete and maintain a soil protection review (SPR). Payment for ditch management options are available under Environmental Stewardship – Entry Level (ELS) and Higher Level (HLS)
4. **Prioritise** improved management of ditches that drain directly into watercourses. Be aware of the pathways that your ditches follow, remembering that upslope problems can be transmitted downstream.
5. **Develop an action plan** for improved ditch management:
 - exclude livestock from ditches using fencing where necessary in order to protect the ditches from stock damage, and livestock from lameness, injury and waterborne disease
 - maintain ditches on a rotational basis in order to minimise costs, maintain habitat diversity, and encourage settling of sediments and nutrient uptake by vegetation. A 2-3 year cycle of clearance is recommended as a minimum; once every five years is ideal. Clear ditches in autumn to minimise disturbance to birds, aquatic insects and seed setting
 - leave as much vegetation on the sides of the ditch as possible. Trimming should preferably take place on one side only or on different sides in alternate years. Remove only the sediment that has accumulated at the bottom of the ditch. Spread dredgings on adjacent land and allow grass to re-establish naturally. Cut vegetation should be moved away from the ditch to avoid pollution from leachate
 - try to include a variety of bankside profiles around the farm to encourage a greater diversity of species
 - consider creating small ponds and wetland areas at ditch junctions or by drainage outlets to help manage runoff and increase wildlife diversity
 - avoid spreading fertilisers and spraying pesticides too close to ditches
6. **Check** your ditches for signs of brown water runoff or sewage fungus, particularly during or after rain. Maintain land drain outfalls regularly. Follow up any pollution problems.

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Managing ditches - Practical examples

Ditch clearance savings

Save money by extending the rotational dredging or clearance programme for ditches on your farm e.g. from three to four years.

For example, if 250m of a 1000m long ditch system is left untouched each year, annual costs will be reduced by 25%. The cost of ditch excavation and cleaning is estimated to be up to £175/100m. The total annual saving of an extended clearance programme is therefore approximately £440. Grant aid for ditch restoration of £2.90/m may be available under the Environmental Stewardship Higher Level Scheme.

In addition, an extended programme causes less damage to wildlife habitats and enhances the ability of vegetation to trap both sediments and nutrients.



Sensitive ditch clearance

Rotational ditch clearance

In this example, a farmer with an 89ha beef enterprise, with 2.4k of ditches, took advice and decided to manage his ditch clearance differently.

The normal cost of ditching 2400m was £1.75/m, a total of £4200.

Taking care to minimise pollution he cleared only two thirds of his ditches leaving one third well vegetated. This reduced his costs by £1400 a year with no loss of drainage efficiency.

He gained extra benefits by spreading the nutrient rich sediment over his fields and protected an important wildlife habitat.

Payback was less than a year.



In-ditch wildlife habitat

Remember

- Use your ditches as an early warning system for pollution. Check for signs of brown water runoff and sewage fungus during rainfall. Act quickly to avoid the risk of fines for watercourse pollution.
- Maintain your ditches for good land drainage and habitat diversity in order to optimise conditions for crop growth and increase the wildlife value of your farm.
- Grant aid for ditch restoration may be available under an Environmental Stewardship Scheme.

For further information: Defra (www.defra.gov.uk), Environment Agency (www.environment-agency.gov.uk), ECSFDI (<http://www.defra.gov.uk/foodfarm/landmanage/water/csf/delivery-initiative.htm>), Natural England (www.naturalengland.org.uk), Cross Compliance Helpline 0845 345 1302 (www.crosscompliance.org.uk) and ART (www.associationofrivertrusts.org.uk)



This information sheet is part of a series providing farmers with advice on land management practices to protect water bodies, produced by Association of Rivers Trusts with support from the England Catchment Sensitive Farming Delivery Initiative. The advice will also enable farmers to use farm resources more efficiently and help meet Nitrate Vulnerable Zone and Soil Protection Review requirements under Cross Compliance and environmental regulation.



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