

Wildlife and
Countryside



Diffuse Water Pollution from Agriculture: a proposed solution

The Department of Environment Food and Rural Affairs (Defra) definition of diffuse water pollution is:

“Pollution arising from land-use activities (both urban and rural) that is dispersed across a catchment, or sub-catchment, and does not arise as a process effluent, municipal sewage effluent, or an effluent discharge from farm buildings” (Defra 2002).

Wildlife and Countryside Link (Link) believes that diffuse water pollution from agriculture is a problem that needs to be addressed now. Long term diffuse water pollution is damaging the environment, costing millions of pounds every year to clean up and should be prevented. In this paper we outline the action we believe could achieve this: we urge the Government to consider our proposals.

Link brings together 33 voluntary organisations concerned with the conservation and protection of wildlife and the countryside. Our members practise and advocate environmentally sensitive land management and food production practices and encourage respect for and enjoyment of natural landscapes and features, the historic environment and biodiversity. Taken together, our members have the support of almost 7 million people in the UK.

This statement is supported by the following organisations:

The Bat Conservation Trust
Buglife - The Invertebrate Conservation Trust
Butterfly Conservation
Campaign to Protect Rural England
Council for British Archaeology
Herpetological Conservation Trust
Marine Conservation Society
Plantlife International
Ponds Conservation Trust
Royal Society for Protection of Birds
Wildfowl & Wetlands Trust
The Wildlife Trusts
Woodland Trust
Worldwide Fund for Nature

Summary

If we are to achieve national targets for biodiversity and to protect landscape quality it is critical that the problem of diffuse water pollution is tackled. To achieve significant change the Government will need to establish interdepartmental aims and objectives supported by appropriate targets and indicators of progress as outlined below:

- The Government's **aim** must be to reduce and eventually eliminate environmental damage from diffuse pollution, by implementing integrated catchment management and putting sustainable farming at the heart of agricultural policy.
- Link believes the Government's **targets** should be to:
 - Prevent further deterioration in the quality of our rivers, lakes and seas.
 - Stop damage to important wildlife sites by 2010.
 - Achieve good water quality (as defined under European law), for all our waters by 2015
- Link proposes that appropriate **indicators** of progress will be:
 - Levels of nutrients in lakes, rivers, ponds and ditches
 - Trends in pesticide incidence in freshwater
 - Condition of agricultural soils
 - Numbers of important wildlife sites damaged by diffuse pollution

Furthermore, the Government should set ecologically relevant standards for major diffuse pollutants of water, including nutrients, silts, pesticides, and veterinary medicines, as soon as possible. These standards should be type specific, allowing for natural variation across the water environment.

Link believes these standards could be achieved by the Government through implementing **five key steps**:

1. **FARM PLANNING:** Secure nutrient, crop-protection and soil management planning on all farms. This should be implemented through all available mechanisms and measures.
2. **ADVICE:** Provide an integrated and well-resourced nationwide Farm Advisory Service to support farm planning, and appoint Catchment Officers in 'hotspot' areas.
3. **SMARTER RULES:** Introduce new powers for the Environment Agency to control diffuse pollution. These should include simple, base-line rules for all farms and the power to take more stringent action in problem areas.
4. **INCENTIVES:** Provide short-term incentives to help farmers prepare for changes to standards, and longer-term support for extensive land uses, where these help to manage diffuse pollution, protect and restore biodiversity and enhance landscape quality. Improved grants may also be necessary to help farmers upgrade buildings and equipment
5. **POLLUTER PAYS:** Consult urgently on the use of 'green taxation' to tackle diffuse pollution problems (nutrients and pesticides), including a commitment that any funds raised would be re-invested to help farmers adapt to new standards.

What is Integrated Catchment Management?

The Government in its water policy document **Directing the Flow** identified integrated catchment management, linked to more sustainable land-use, as the best hope for reducing water pollution and achieving healthier aquatic ecosystems. Catchment authorities (working with stakeholders) should identify appropriate objectives for reducing flood risk, improving water quality, protecting water resources, conserving archaeological sites and enhancing biodiversity and should actively promote land-uses that will enable these to be achieved. In particular, efforts need to be focused on riparian corridors and areas with high risks of erosion. By seeking to maximise the benefits of sympathetic land-use in these vulnerable areas, Government could deliver on a whole range of legal and policy commitments. Such land-uses might include (but would not be restricted to) taking sensitive areas out of cultivation and creating floodplain wet grasslands, washlands and woodlands, to provide important wildlife habitat and landscape and help to mitigate the impacts of floods and pollution.

Why is Government action needed now?

1. Diffuse pollution from agriculture is damaging our wildlife

- **Habitats and Birds Directives (92/43/EEC and 79/409/EEC)**
The target of this Directive is to achieve “favourable conservation status” of prime wildlife areas (Special Protection Areas and Special Areas of Conservation) from 2004. Little action has been taken to address impacts from diffuse pollution from the wider countryside on European wildlife sites. This should change – we need action to tackle diffuse pollution in priority areas now, if we are to prevent further degradation of these internationally important sites.
- **SSSIs and Public Sector Agreement targets**
SSSIs are a representative sample of the nation’s most significant sites for wildlife and geology, their features being irreplaceable parts of the national heritage. Well over half, by area, are also internationally important. Government has set a Public Service Agreement target for its Agencies to bring 95% of Sites of Special Scientific Interest (SSSIs) into “favourable condition” by 2010. Diffuse pollution is a major obstacle to achieving this target. English Nature estimate that at present as many as 60% of freshwater SSSIs are in unfavourable condition, including 57% of river SSSIs, partly as a result of diffuse pollution impacts. Furthermore, EN have identified 100 priority sites where diffuse pollution is thought to be the primary cause of damage.
- **Biodiversity Action Plan**
The Government is committed under the UK Biodiversity Action Plan to achieving targets for the recovery of a range of priority habitats and species, many of which are vulnerable to the impacts of diffuse pollution. These commitments are re-enforced in law in section 74 of the CRow Act 2000, which gives government departments specific responsibilities towards these species and habitats. The commitment to act is explicitly mentioned in Defra’s **England Biodiversity Strategy** (2002), which states that Government will *‘identify policy instruments to address diffuse pollution from agriculture, considering the role of*

regulation, economic instruments and advice with the aim of reducing nutrient run-off, soil erosion and flood risk, helping to increase biodiversity interest.'

- **Water Framework Directive (2000/60/EC)**

The Water Framework Directive (WFD) will set new and ambitious EU standards for water quality, to be achieved by 2015. In order to meet these, a new system of water management, including adequate measures to control diffuse pollution, must be in place within a decade. Current indicators of water quality suggest that very large parts of the UK's network of lakes, rivers and coasts will fall below the new standards without prompt and vigorous action.

The UK's record on the prompt transposition and implementation of environmental laws leaves much to be desired; we top the European league for 'non communication' offences in this field. Link hopes that the implementation of the WFD will signal a fresh approach, avoiding the problems caused (for example) by the late and ineffectual implementation of the Nitrates Directive. Tackling diffuse water pollution promptly and vigorously is a crucial test of the Government's commitment to implementing WFD requirements on time, and in full. Link believes that it will be impossible to prevent further deterioration of our waters, or achieve the ambitious targets set out for 2015, unless action is taken now to tackle this problem.

- **Impacts upon the marine environment**

Around 80% of marine pollution comes from land-based sources; more than 50% of nitrogen entering the marine environment comes from agriculture. Studies by English Nature and the Environment Agency show that over half of our most important marine wildlife sites, SACs and SPAs, may be damaged or at risk of damage through eutrophication.

2. **Diffuse pollution is damaging our heritage**

Preventing soil erosion and run-off is very effective at conserving archaeological sites in arable areas. This has been addressed in Defra research project BD1701 on The Management of Archaeological Sites in Arable Landscapes (which was referred to both in *Our Countryside: The Future* and *The Historic Environment: A Force for our Future*).

- **Impacts on artefacts**

From a series of European studies there is increasing evidence of irreversible chemical degradation of metal and other artefacts arising from agro-chemicals, but this has never been examined systematically in the UK.

- **Impacts on Scheduled Monuments and other archaeological sites**

The UK is committed to protection of its archaeological heritage under the Council of Europe Valletta Convention ratified in 2000. Soil erosion is intimately bound up with exacerbating the destruction of sites under cultivation, in some cases at rates of erosion of 20-50mm per year. English Heritage surveys indicate that 25-30% of scheduled monuments are at risk from agriculture, mainly due to cultivation.

- **Impacts on historic water bodies**

Soil erosion and pollutant-rich run-off has very significant effects causing severe silting and nutrification of lakes in designed landscapes, and other historic water bodies. Many of these are designed historic landscapes that are protected under the Parks and Gardens Register. Cost of management is very high.

3. Costs of Diffuse water pollution and its impacts on people

Defra estimates that it costs £225 million/year for the water industry to treat potable supplies for pesticides, nitrate, phosphate, micro-organisms and suspended solids (Defra 2002). This cost is passed on by water companies to consumers through higher bills. Direct costs can also arise for neighbours where nutrients and silt damage the quality of the aquatic environment. Neighbours suffer from a loss of amenity or have to undertake restorative works.

Good quality waters attract visitors and have a substantial role in supporting tourism and recreation. For example there are 40 million visitors to British beaches each year. Almost two-thirds (65%) (of survey respondents) have visited or walked on beaches or by coastal waters in England or Wales over the past year, and half have done so at inland waters. (MORI/Social Research Institute 2002). Diffuse water pollution reduces the recreational and amenity value of water bodies for water sports and general recreation. The survey of water consumers in 2002 revealed that the aspects considered most in need of improvement are the 'maintenance of the quality of coastal, bathing and of river waters', and the 'protection of important areas of wildlife and plants'.

Where are the gaps in current Government action?

Link welcomes the Government's DWPA project, and its commitment to find the right mix of instruments to tackle the problem, including fiscal measures, regulation and cross-compliance, incentives and advice. However, we hope that the final proposals will:

- acknowledge the need to achieve long-term reductions in national nutrient surpluses and pesticide use and set appropriate targets to achieve this;
- recognise the full range of environmental impacts of diffuse pollution, including impacts on the historic environment;
- recognise the scale and urgency of the problem and the need for early action;
- make clear links with the implementation of Common Agricultural Policy reforms;
- present a clear timetable for action;
- identify appropriate new sources of funding and;
- promote 'multi-objective' solutions, that help to manage flood risks and enhance biodiversity and protect landscape quality, as well as tackling diffuse pollution.

Link welcomed the Government's 2002 commitment to take action using this range of policy instruments. However, we are disappointed and alarmed that no firm proposals have yet emerged. We urge the Government to make clear, time-tabled and fully resourced commitments to the five steps outlined in our plan.

Conclusion

Diffuse pollution is damaging habitats and species and the historic environment. It contributes to an overall debasing of the quality of landscape. It also costs tax-payers and water customers millions of pounds every year. Current actions are insufficient to address this crisis, and more will be needed to meet the Government's obligations under national and international law.

Diffuse pollution should be tackled by Government in a manner which prevents and reverses damage to wildlife, and supports more sustainable farming. This is essential if we are to achieve "good chemical and ecological water quality status for all rivers, lakes, estuaries and coastal waters and good chemical and quantitative water status for all bodies of groundwater by 2015" as required by the Water Framework Directive. Link believes that diffuse pollution can be tackled through the five key steps identified in this paper.