

DEFRA

Memorandum by the SOWAP (SOil and WAtEr Protection) project in response to DEFRA consultation (dated 17th June) on ‘Developing measures to promote catchment-sensitive farming in England’.

Executive Summary

- The SOWAP project believes that good soil management and conservation (non-inversion) tillage in particular can play a key role in reducing the effects of diffuse pollution from agriculture.
- At the farm level, land managers need to retain operational flexibility to achieve their numerous objectives. Therefore, it is important that measures such as changes to the soil management regime are integrated within a whole farm plan.
- At the policy level, it is essential that the outcomes of this consultation are integrated with other policy initiatives.
- There is a need to improve the knowledge and understanding of land managers and their advisers regarding the importance of the role of soil protection and its effect in reducing diffuse pollution and also providing other environmental benefits.
- We welcome the Government’s desire to take early action and work in collaboration with land managers and other stakeholders.

1. Introduction

1.1 The SOWAP project welcomes this opportunity to respond to DEFRA’s consultation on developing measures to promote catchment-sensitive farming.

1.2 SOWAP (SOil and WAtEr Protection) is a EU-LIFE Environment project examining the environmental, economic and social costs and benefits of a range of site-specific soil management methods. Effects on soil erosion, pesticide and fertiliser run-off and key terrestrial and aquatic biodiversity indicators will be measured.

1.3 The SOWAP project is a collaborative effort by industry, non-governmental organisations, academic institutions and farmers.

1.4 We recognise the benefits that environmentally focussed land management techniques can bring to land managers and also to society in general and we are working with all stakeholders to increase awareness and understanding about this important issue.

2. Catchment-sensitive farming

2.1 While the SOWAP project supports the fundamental principles of conservation agriculture (defined as permanent soil cover, non-inversion tillage and good crop

rotations), we are above all, concerned with understanding and demonstrating ways of better managing the land, be this better timing of tillage or no-tillage.

- 2.2 Good soil management can have a key role in protecting catchments from diffuse pollution by reducing the risks of soil erosion and water runoff. However, it is important that soils are regularly assessed as to their condition before a decision on management is made.
- 2.3 Conservation tillage can also potentially provide many other benefits. Initial results from the SOWAP project report that conservation (non-inversion) tillage fields provide better habitats for farmland birds.
- 2.4 However, it is important to note that changes in soil management may not provide immediate benefits. Experiences elsewhere highlight the fact that in transition from a plough-based system to one based on conservation tillage, there may be an interim period of economic and environmental uncertainty for 2-3 years after implementation. We believe it is important that this is considered when policy decisions are being made.
- 2.5 It is also important to consider changes in soil management aimed at reducing diffuse pollution in the wider context. For example, while establishing coarser seedbeds may be a viable option to reduce runoff risk, it may also have the undesirable effect of encouraging high slug populations. In the UK, increasing grass weed populations in non-inversion tillage systems may threaten the viability of the system. In such cases, ploughing would be a vital tool in restoring system sustainability. Land managers need to retain the flexibility to solve such issues as part of their entire farming system.
- 2.6 A variety of options should be made available to land managers to combat diffuse pollution. SOWAP is mainly looking at in-field *i.e.* conservation tillage, solutions to reducing diffuse pollution.
- 2.7 The SOWAP project believes that improved whole farm planning *e.g.* using DEFRA's Whole Farm Appraisal, will be an important process in assessing the options available to land managers, and significantly, the consequences of these options.
- 2.8 SOWAP believes that currently there is much that can be learnt and disseminated about the soil resource, its functions, its conservation and its potential impact on water quality. However, it is important to note that poor advice can be as potentially damaging as no advice. Land managers need to be confident that they are receiving accurate messages in a clear and consistent way.

3. Approach and policy

- 3.1 At the SOWAP project, we understand that site-specificity is an important concept. We believe that differential action is required not only between catchments, but also on farms in the same catchment and within a single farm *i.e.* the causes of and measures undertaken to tackle diffuse pollution are field specific and can be crop specific. However, general principles of good practice can be applied and these should be integral to the advice and policy developed.

- 3.2 We value the Government's commitment to working with land managers and would encourage early action supporting them to understand the issues and deliver the necessary targets.
- 3.3 We believe that the successful implementation of catchment-sensitive farming would be best achieved by a combination of approaches: primarily a supportive approach; some early regulation within an integrated, coordinated, light touch approach, looking at the whole farm; and provision of financial incentives to reduce agricultural emissions.
- 3.4 A combination of national and area-based regulation would be necessary to take into account the site specificity of a problem.
- 3.5 The SOWAP project acknowledges the merit in regulation as a way to prohibit the growth of high pollution risk crops in high pollution risk areas. However, we believe there may be many unexplored resolutions to current concerns.
- 3.6 SOWAP strongly believes that it is essential for the output from this consultation to be fully integrated with other policy initiatives *e.g.* the Soils Action plan.
- 3.7 We appreciate the difficulty and cost of undertaking catchment (or sub-catchment) scale research and demonstration. However, the absence of such work is a major gap in understanding how anti-diffuse pollution measures supporting catchment-sensitive farming might be implemented on a countrywide scale. SOWAP attempts to fill the gap.

4. Conclusions

- The SOWAP project recognises the need to address the issue of diffuse water pollution from agriculture and therefore welcomes the aims of this consultation.
- We believe that good soil management can have a key role in protecting catchments from diffuse pollution by reducing the risks of soil erosion and water runoff.
- However, it is important that measures put in place to reduce diffuse pollution are considered in within the whole farming system and are integrated with other policy initiatives.
- SOWAP is pleased to take part in this consultation and would welcome an opportunity to discuss this proposal further.