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# First Soil Action Plan for England: 2004-2006 – Second Annual Report

July 2006

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# **First Soil Action Plan for England: 2004-2006 – Second Annual Report, July 2006**

## **1.0 Introduction**

1.1 The First Soil Action Plan for England (SAP) was published in May 2004. This is the Second Annual Report of progress in delivering the plan's 52 actions.

1.2 The aim of the Action Plan is to work with others, including policy makers, industry leaders and influencers across a wide spectrum of activities that impinge on soils, to ensure that England's soils are protected and managed to optimise their functions and deliver a range of ecosystem services in keeping with the principles of sustainable development and on the basis of sound evidence.

1.3 The core of the First Action Plan is devoted to things we can achieve in the short-term and to building a consensus view of what is necessary beyond this and a coalition of partners to drive it forward.

## **2.0 Cross Defra and cross departmental working**

2.1 Defra and its delivery bodies have continued to work together to deliver the SAP. Links with the Rural Development Service (Natural England from October 2006), Government Offices, the Rural Payments Agency and the Environment Agency have been strengthened, and we have also continued to build relationships with other Government Departments e.g. Department for Education and Skills and Department for Communities and Local Government (DCLG).

2.2 Additionally, English Nature, English Heritage and the Environment Agency have continued to make progress on those actions in the plan, on which they lead.

## **3.0 Progress**

3.1 The majority of the 52 actions included in the Action Plan remain on track to meet deadlines as set out in the published programme plan. The table at Annex 1 details progress against each action over the second year of delivery; 11 actions have been completed, 40 actions are at green or amber to be delivered within the stated timeframe and 1 action is at amber/red. It should be noted that from the outset of this work some of the actions have been beyond the 2004-2006 timeframe of the Action Plan.

3.2 Key areas where we have made significant progress include CAP cross compliance, Environmental Stewardship, Water Framework Directive, soils in the built environment, soil quality indicators, and education and awareness. Progress in these areas by Defra and partners is highlighted below.

## **Cross Compliance**

3.3 Over the past year, further progress has been made in delivering the soil components of CAP reform. Of most significance was the development of the Cross Compliance Soil Protection Review (SPR), which farmers must complete as part of their Good Agricultural and Environmental Condition requirements. The SPR was sent to farmers in December 2005, following significant farmer testing and joint working with agricultural stakeholders, along with revised soils guidance and the updated cross compliance handbook. It is a whole farm assessment of risks to soil, requiring farmers to identify any soil issues on their farm and to record and implement any measures that they will take to tackle these. The SPR must be completed by 1 September 2006, with implementation of identified actions commencing on 1 January 2007. There is an element of revision and farmers can update their plan at any time, but they must do so at least once a year, so over time we hope to see targeted, improved soil protection across the country. We are currently in the process of agreeing an inspection/enforcement process for the SPR. We believe that options encouraged under the SPR will provide a good foundation for the implementation of the anticipated EU Soil Framework Directive (due to be adopted in 2006), as well as providing benefits to other environmental media such as water quality.

## **Environmental Stewardship**

3.4 Final guidance on the production of a Soil Management Plan under the Entry Level Stewardship scheme was published on the Defra website in October 2005<sup>1</sup>. Early monitoring of the uptake of options under Environmental Stewardship has shown that considerably more farmers intend to complete a Soil Management Plan under Entry Level Stewardship than was anticipated, with just under 9000 agreements to date, ranking fourth on the list of highest uptake of ELS/OELS options by July 2006.

## **Catchment Sensitive Farming**

3.5 The England Catchment Sensitive Farming (CSF) Delivery Initiative was launched on 1 April 2006 as a means of tackling diffuse water pollution from agriculture under the Water Framework Directive. Forty priority catchments have been identified and the recruitment of CSF Officers for each catchment is nearing completion. A number of projects are ongoing across the catchments to tackle diffuse pollution, with improved soil management playing a key role in many of these. We have commissioned a project to complement CSF, seeking to establish whether or not management practices can be encouraged that could lead to a sustainable increase in, or reduced loss of, soil organic matter. We see this as an important project due to concerns over the decline of soil carbon levels and a possible link with climate change. Outcomes of the project will help inform future decisions on meeting the Sustainable Farming and Food Strategy target "to halt the decline in soil

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<sup>1</sup> <http://www.defra.gov.uk/erdp/schemes/es/soilmanagementplan.htm>

organic matter in vulnerable agricultural soils by 2025". The project is taking place in five of the forty CSF catchments over the next two years. Whilst the project will seek to add value to the CSF Programme, it will be independent of this work, focussing on soil organic matter.

## **Built Environment**

3.6 As demonstrated above the consideration of sustainable soil management is embedded in the agricultural sector. However, the significant impact on soils from other sectors has not previously been addressed. Within the urban environment the construction and planning sectors have significant impacts on the sustainable use of soil, yet soils are often only a last minute consideration in development. We have planned a programme of work to address the lack of understanding of soil planning requirements and the soil degradation caused by the construction sector. Plans are being developed with DTI for a code of good soil management on construction sites and a toolkit to support planning officers in interpreting and implementing the soil aspects of planning policy guidance is being developed with DCLG. Additionally an expert working group has been convened to review the British Standard for Topsoil (BS3882). There was a consensus view at the first meeting of this group that the standard should be revised, particularly in its scope, presentation and definition of the three grades of topsoil. Further links have been developed with DCLG and the Local Government Association over the past year and we are working with them to raise soils awareness in this sector.

## **Indicators**

3.7 As detailed in the first annual report, the cross-government UK Soil Indicators Consortium are developing a set of soil quality indicators as a means to determine the state of our national soils and to monitor future change. It is likely that this work will help inform delivery of the EU Soil Framework Directive, assuming this is agreed, setting a baseline of soil status and also a means to monitor the impact of measures included in the Directive. Robustness testing of an agreed set of indicators has been completed and a project taking stock of existing environmental monitoring is due to commence in July 2006. This will be followed by work to design a new monitoring scheme. A jointly funded project with the British National Space Centre, reviewing the potential to use satellite based remote sensing to monitor soil sealing, has been successfully completed and plans are being developed to take this work forward.

## **Education and Awareness**

3.8 Good progress has been made on soils education and awareness over the past year. Further developments and additions have been made to Soil-Net, an internet resource for soils education in schools, following a project piloting the resources in Hampshire. Additionally, the National Soil Resources Institute has developed an interactive web-based mapping site that will allow the public to view the simplified Soilscales version of the National Soil Map in

a simple and easy to understand manner. Significant steps have also been made in the past year to raise awareness more generally of the need to protect soils.

3.9 Where we have made less progress on actions this has mostly been due to circumstances beyond our control, e.g. actions relating to negotiating or reviewing EU Directives where the European Commission has yet to publish its proposals. On the EU Thematic Strategy for Soil Protection, the Commission is expected to propose a Soil Framework Directive during 2006.

#### **4.0 Stakeholder engagement**

4.1 We continue to maintain regular contact with our stakeholders via bi-annual SAP Advisory Forum (AF) meetings, the production of a monthly electronic newsletter and the publication of relevant papers, project reports etc on the soils part of the Defra website. Stakeholders also use the newsletter to provide updates of their own progress in helping us to deliver actions.

4.2 A short questionnaire was sent to all AF members, following the November 2005 AF meeting, in order to generate feedback on members' satisfaction or otherwise with their involvement in the AF as well as wider Soils Team business and approach. Overall results were encouraging; the majority of respondents were either *Very Satisfied* or *Satisfied* with their involvement with relation to the AF, and most found AF meetings either *Very Informative* or *Informative*. The monthly newsletter of progress was highly regarded and interaction of the Soils Team in relation to a series of working practices was generally judged as *Average* or better.

#### **5.0 Next steps**

5.1 The First Soil Action Plan for England comes to an end in April 2007. We will continue to deliver the actions in the plan as well as developing plans for the next phase of soil policy, to take the form of a new soil strategy.

5.2 In preparing the soil strategy we are evaluating the impacts of our work over the past two years. The impact of soil-related measures adopted under schemes such as cross compliance and Environmental Stewardship will be of significance and we are currently inputting to work to monitor and evaluate these.

#### **6.0 Conclusion**

6.1 Good progress has been made so far on delivery of the First Soil Action Plan. We remain on track to deliver against all of the 52 actions set out in this plan, as well as developing plans for the next phase of soil policy, in consultation with our stakeholders and other Government Departments and Agencies.

## The First Soil Action Plan for England: annual progress report, 2005-2006

	Action	Progress	Traffic Light
1	Defra will implement the CAP cross compliance conditions in such a way as to foster basic good management of soils in the farming industry	<ul style="list-style-type: none"> <li>• The Cross Compliance Soil Protection Review (SPR) was published in December 2005, following farmer testing. This is a whole farm assessment of risks to soil requiring farmers to identify any soil issues on their farm and to record and implement any measures they will take to tackle these.</li> <li>• Revised Cross Compliance Guidance for Soil Management was also published in December 2005, including new sections on managing land not in agricultural production and managing soils under set-aside.</li> <li>• A delivery plan for 2006 has been agreed with Momenta, as part of their cross compliance advice contract, this will focus on the SPR – requirements, key dates etc.</li> <li>• Work is ongoing to agree an inspection/enforcement process for the SPR.</li> <li>• We are working with colleagues in Sustainable Agriculture Strategy Division to agree the process for monitoring the impact of cross compliance in delivering outcomes.</li> </ul>	<b>G</b>

2	Defra will encourage better management of agricultural soils that goes beyond the requirements of the Single Payment, through the provision of incentives under the Agri-Environment Scheme	<ul style="list-style-type: none"> <li>• Full guidance on producing a soil management plan for Entry Level Stewardship (ELS) is available on the Defra website.</li> <li>• Early monitoring suggests that interest in the Soil Management Planning option of ELS is considerably higher than was originally anticipated, with just under 9000 commitments by July 2006 (equivalent to c. 40% of ELS applications).</li> <li>• Environment Agency (EA), working in partnership with Rural Development Service (RDS) and English Nature (EN), have developed a methodology to identify areas prone to soil erosion and enhanced runoff for targeting areas under Higher Level Stewardship (HLS) and Catchment Sensitive Farming (CSF). As a result of this work a significant area of the country has been targeted for soil erosion measures under the scheme.</li> <li>• We are inputting to work to develop indicators to assess the impact of Environmental Stewardship on soil protection.</li> </ul>	<b>G</b>
3	Defra will develop a strategy for providing farmers and other land managers with practical information and advice for building good soil management into overall farm planning	<ul style="list-style-type: none"> <li>• Significant progress has been made in developing practical advice/guidance (e.g. controlling soil erosion guidance has been reviewed and made electronically available; a Soil and Water Management Certificate, offered by the National Soil Resources Institute and accredited by BASIS, commenced in November 2004; a soils module has been included in the Whole Farm Approach). We will maintain regular contact with others in Defra to ensure that future advice considers soil.</li> </ul>	<b>Complete</b>
4	Defra will engage with DTI and other professional bodies to raise standards of sustainable construction practices, and disseminate knowledge throughout the development and construction sectors	<ul style="list-style-type: none"> <li>• Work on a code of good soil management on construction sites is due to commence shortly.</li> <li>• A topsoil standards working group has been established to produce a revised draft of BS3882 (British Standard for Topsoil), particularly focusing on scope, presentation and definition of the three grades of topsoil.</li> </ul>	<b>G</b>

5	Defra will engage with key stakeholders across Government Departments and Agencies to seek to deliver improved Training/Career Path Development programmes for Defra-funded conservation and environmental advisors that incorporate soil function and protection techniques	<ul style="list-style-type: none"> <li>• England Catchment Sensitive Farming (CSF) Delivery Initiative started 1 April 2006.</li> <li>• Forty priority catchments have been identified and the recruitment process for CSF officers is nearing completion.</li> <li>• Soil management being promoted as a means to tackle diffuse water pollution from agriculture under CSF.</li> <li>• National Soil Resources Institute (NSRI) Soil and Water Management Course continues to be a success, with courses taking places in December 2005 and January 2006.</li> </ul>	<b>G</b>
6	Defra will agree a framework with other departments to help ensure that Government's wider policies take proper account of their impacts on soils and recognise soil as a strategic national resource	<ul style="list-style-type: none"> <li>• Department for Education and Skills (DfES) commitment to support development of Soil-Net (part of Action 10).</li> <li>• Qualifications and Curriculum Authority have expressed interest in including soil when they next update the science curriculum. Additionally we will work with them to influence examining bodies re the inclusion of soils in exam papers.</li> <li>• Programme of work for soils in the built environment has been approved; much of this involves working with the Department for Communities and Local Government (DCLG, formerly Office of the Deputy Prime Minister).</li> <li>• Engaged with a wide range of Government stakeholders (including DCLG, Department of Trade and Industry, Cabinet Office, HM Treasury) in relation to the Soil Thematic Strategy and proposed Soil Framework Directive.</li> </ul>	<b>A</b>
7	Defra will work during the Spending Review 2004 process to embed soil protection into its forward strategies and, if appropriate, targets on natural resource protection	<ul style="list-style-type: none"> <li>• Resources were secured during the Spending Review 2004 process to take forward the Soil Action Plan and other policy areas which have an impact on soil.</li> </ul>	<b>Complete</b>
8	Defra will ensure that, during the process	<ul style="list-style-type: none"> <li>• We have been working with the Environment Agency in drafting</li> </ul>	

	of reconstructing the Government's rural delivery landscape in response to the Haskins report, all new and reconstructed agencies concerned with land management issues have regard to the proper management of soils alongside other requirements	<p>relevant sections of their Corporate Strategy and Plan and Soil Strategy.</p> <ul style="list-style-type: none"> <li>• We have input to developing corporate strategies for Natural England.</li> <li>• We are working to finalise a delivery matrix, for future years, with our delivery partners (e.g. Environment Agency, Natural England).</li> </ul>	<b>G</b>	
9	Defra will work with the European Commission, UK stakeholders and other member states to try and ensure that outcomes of the EU Soil Thematic Strategy are appropriate to UK soils and the pressures on them	<ul style="list-style-type: none"> <li>• It is expected that the European Commission will propose a Communication, Impact Assessment and Soil Framework Directive during the course of 2006.</li> <li>• We have provided papers and briefings, as appropriate, on the outputs the UK could support in the Soil Thematic Strategy.</li> <li>• An eight week internet consultation on the Commission's proposals was held during summer 2005.</li> <li>• A meeting of Member States (MS) was held in October 2005 as part of the UK Presidency of the EU. This was well attended by MS and the Commission and was valuable in furthering a common understanding of proposals and how the strategy might best add value.</li> <li>• The Soil Atlas of Europe was also launched in October 2005.</li> <li>• We have provided contributions to the developing UK line on both the Waste and Urban Environment Thematic Strategies, to ensure soil management is considered where necessary.</li> </ul>	<b>A</b>	<b>R</b>
10	Defra will work with stakeholders to develop a programme of education and awareness of soil issues	<ul style="list-style-type: none"> <li>• Project piloting Soil-Net in Hampshire schools commenced at the end-2005. A positive and enthusiastic response has been received from teachers, and a number of developments made to the Soil-Net resource. This project is due to report end-July 2006.</li> <li>• Advisory Forum members were involved in the review of the</li> </ul>		

		DfES Standards Unit <i>Soil Works</i> resources. DfES funding of the Standards Unit has come to an end, therefore production of these materials has transferred to the Quality Improvements Agency. Materials have been finalised and are currently being manufactured; packs will be sent to all institutes within the post compulsory education sector (including educational establishments, prison services, work-based learners and job centre plus) in September 2006.	G
11	Defra will work with stakeholders to identify indicators which should be built into a national soil monitoring scheme, aiming to develop a scheme meeting national and European requirements	<ul style="list-style-type: none"> <li>• Soil Organic Matter indicator under the Sustainable Farming and Food Strategy has been developed. The complete set of indicators should be published during summer 2006.</li> <li>• UK Soil Indicators Consortium (UKSIC): indicator robustness testing is now complete. Project to evaluate existing environmental monitoring schemes for their coverage of soil indicators and contextual information is due to commence in July 2006 to inform the design of a monitoring scheme.</li> <li>• As part of the UKSIC, EA have published a paper on the development and use of soil quality indicators for assessing the role of soil in environmental interactions. Copies of this paper are available on the EA website.</li> <li>• Research being undertaken by Centre for Ecology and Hydrology on biological indicators (SQID1) is now complete. The second phase, field testing the top thirteen indicators over the next 3 years, has started.</li> <li>• A jointly funded project between Defra and the British National Space Centre on the potential to use remote sensing to monitor soil sealing has been completed.</li> </ul>	G
12	Defra will review its soil research programme in light of the recently	<ul style="list-style-type: none"> <li>• Priorities for the 2005-08 Soil Protection research programme have been established.</li> </ul>	

	completed UK Soils Research Audit, and issues identified in this plan, to ensure that resources are focussed on the most urgent questions	<ul style="list-style-type: none"> <li>Approved research objectives are available on the Defra website.</li> </ul>	<b>Complete</b>
13	Defra will work with other Government Departments and Agencies (including the Devolved Administrations), and other soil data users, to develop and provide better access to information on soils	<ul style="list-style-type: none"> <li>ADAS project to improve awareness of what soils information is available within Government has reported, including a tool to determine who holds what. This tool will be disseminated to all relevant stakeholders and we are developing a strategy to improve access to soils information across Government.</li> <li>We are considering the means to improve access to the Land Information System (national computerised database system for soil and related information in England and Wales, maintained by the National Soil Resources Institute with Defra funding) for the Defra family; RDS and NSRI are discussing access for Natural England.</li> </ul>	<b>A</b>
14	Defra will consider with DCLG and Local Government organisations how to increase understanding of soil issues throughout the Regional and Local Government structure	<ul style="list-style-type: none"> <li>We are working with DCLG to develop guidance to support planning officers in interpreting soil planning requirements and we are now developing a toolkit for planners.</li> <li>Local Government Association have produced a soils sheet as part of their environmental guidance for Local Authorities. We will be contributing a soils page to their new website, acting as a facility for local government on environmental issues.</li> <li>We have recently contributed to a number of Regional Spatial Strategies, namely NE, WM and SE.</li> <li>We held a workshop in May 2006 for Government Office colleagues, to update them on latest soils policy developments and to help them better understand how soils can be accounted for in the planning process.</li> </ul>	<b>G</b>
15	Defra will work with DCLG to clarify the	<ul style="list-style-type: none"> <li>This action is being taken forward in conjunction with Action 14.</li> </ul>	

	use of existing mechanisms, including the Building Regulations, to ensure proper consideration of soil issues during the planning and development process	See Action 14 for progress.	<b>G</b>
16	Defra will work with DCLG to ensure that soil issues are taken into account, where appropriate, in the creation and implementation of plans at both the regional and local level under the proposed new planning system	<ul style="list-style-type: none"> <li>This action is being taken forward in conjunction with Action 14. See Action 14 for progress.</li> </ul>	<b>G</b>
17	Defra and the Environment Agency will commission work to assess routes of contamination by heavy metals and persistent organic compounds to soils, and to examine the feasibility of new criteria to protect the long term functioning of soils	<ul style="list-style-type: none"> <li>This action is being tackled together with Actions 25 and 28.</li> <li>We are addressing comments on the final report for the ADAS led project on sources and impacts of past, current and future contamination of soil and hope to publish this during summer 2006. We will need to determine policy implications from this.</li> </ul>	<b>A</b>
18	Defra will work with partners to examine results from the inventory of metal inputs to soils, to ensure that necessary controls are in place to retain the long term functioning of soils	<ul style="list-style-type: none"> <li>No progress has yet been made on this action, as it will build upon the results of Action 17.</li> </ul>	<b>A</b>
19	The Environment Agency, Defra and partners will continue to develop soil guideline values for protection of human health from contaminants in soil	<ul style="list-style-type: none"> <li>Defra jointly with the EA are continuing to issue technical guidance in its contaminated land research series of TOX (Toxicological data and intake values for humans) and SGV (Soil Guideline Values) papers. SGV 8 (Phenol contamination) was published in October 2005.</li> <li>Building on the work of the SGV Task Force (looking at aspects of SGV production and prioritising the substances yet to be</li> </ul>	<b>A</b>

		published), Defra is drawing together proposals aimed at improving and adding to the SGV series and the related framework under which the reports are produced.	
20	Defra will seek to negotiate the proposed revisions to the Sewage Sludge Directive to ensure that controls on the application of sludge to land recognise potential benefits, while ensuring that sludge does not impair the long term functioning of soils	<ul style="list-style-type: none"> <li>• We understand that the Sewage Sludge Directive could be reviewed following adoption of the Soil Thematic Strategy package.</li> <li>• Defra will be holding a seminar in late-July in an attempt to determine whether there is a need for additional UK sludge regulation or whether there are other options, including retaining the current mix of statutory and voluntary controls, which would deliver our policy objectives and maintain the necessary protection of the environment and human and animal health.</li> </ul>	<b>Complete</b>
21	Defra will seek, during negotiations on the proposed Bio-Waste Directive, to agree arrangements which encourage the return of organic material to the soil	<ul style="list-style-type: none"> <li>• The Commission is no longer considering a separate Biowaste Directive. The published text of the Waste and Recycling Thematic Strategy suggests that the Commission is looking to develop a technical standard for biowaste. We are mindful of the time this will take and the need for greater market certainty before commencement.</li> <li>• Defra is working with the Devolved Administrations, EA and WRAP, to develop an agreed technical standard for the recycling of organic materials to land, based on PAS100 criteria.</li> <li>• We are involved with the Composting Task Force, examining what materials can be applied to land without exemption and what requires further control. Report expected in September 2006.</li> </ul>	<b>A</b>
22	Defra, the Environment Agency and partners will work to deliver changes to	<ul style="list-style-type: none"> <li>• Draft changes to the Waste Management Licensing Regulations were submitted to Ministers in October 2004.</li> </ul>	

	Waste Management Licensing Regulations to ensure that applications of licensed and exempt wastes does not impair long-term soils functions	<p>These were approved and came into force on 1 July 2005.</p> <ul style="list-style-type: none"> <li>Defra re-consulted on the requirement to source-segregate wastes prior to their mechanical and biological treatment to produce compost-like outputs, as required by the 1 July 2005 Amendment to the Waste Licensing Regulations. Consultation closed 2 May 2006 and results should be published in the autumn.</li> </ul>	<b>G</b>
23	Defra will work with partners to ensure the effective enforcement of regulations on permissible metal concentrations in animal feeds	<ul style="list-style-type: none"> <li>A paper has been produced, in consultation with the Food Standards Agency (FSA), explaining developments in this area, changes to permissible metal concentrations and how enforcement is regulated.</li> <li>We will retain contact with the FSA to chart progress, including how permissible levels of undesirable substances change in the future and noting compliance with the regulations on an annual basis.</li> </ul>	<b>Complete</b>
24	Defra will consider whether controls on the use of metal-containing veterinary medicines are appropriate to balance environmental and livestock interests and how they are enforced	<ul style="list-style-type: none"> <li>This action is being tackled alongside Action 29.</li> <li>An gap analysis is being undertaken by Defra to determine where further work is needed to balance environmental and livestock interests with the use of metal-containing veterinary medicines. Report expected during Summer 2006.</li> <li>We are addressing comments on the final report from the ADAS led project on sources and impacts of past, current and future contamination of soil and hope to publish this during Summer 2006. This will feed into the gap analysis.</li> </ul>	<b>A</b>
25	Defra and the Environment Agency will review and evaluate the impacts of contaminants mobilised and transported by floodwaters, on diffuse pollution of soils	<ul style="list-style-type: none"> <li>This action is being tackled together with Actions 17 and 28. See Action 17 for details.</li> </ul>	<b>A</b>

26	Defra will ensure that appropriate measures are in place or in train to achieve the requirements for 2010 as set out in the National Emissions Ceilings Directive and Gothenburg Protocol	<ul style="list-style-type: none"> <li>Ongoing preparations within Defra for the proposals (following the review of this Directive), which are expected in late-2006/early-2007.</li> </ul>	A
27	Defra, the Environment Agency and partners will seek to establish criteria for the assessment of the impact on and benefits to soil functional capacity for remediation	<ul style="list-style-type: none"> <li>Report on the impacts on soil functions of different remedial techniques, and the impacts of current regulations on these, has been discussed with EA colleagues. Dissemination route has been identified via the EA once report is finalised.</li> </ul>	Complete
28	Defra will work with partners to examine current data sources of the burden on soil resource from diffuse sources; and assess the implications of the results for policy and research	<ul style="list-style-type: none"> <li>This action is being tackled together with Actions 17 and 25. See Action 17 for detail.</li> </ul>	A
29	Defra will work with the veterinary medicines industry and other partners to gain better understanding of the potential impacts of veterinary products on soil biodiversity	<ul style="list-style-type: none"> <li>This action is being tackled alongside Action 24. See Action 24 for detail.</li> </ul>	A
30	UKCIP and Defra will establish a scoping study of the impacts of climate change on soil types in England	<ul style="list-style-type: none"> <li>Project was let to NSRI and reported at the end-2005.</li> </ul>	Complete
31	Following on from Action 30, Defra and partners will undertake further (including development of tools to manage the risks to soils from climate change)	<ul style="list-style-type: none"> <li>Soil Carbon workshop was held in early May to discuss the implications of soil carbon dynamics and the influence of climate change for policy development. Plans for further R&amp;D on the impacts of climate change on soils will be considered in line with the outcomes of the workshop.</li> </ul>	A
32	Defra will review the Code Of Good	<ul style="list-style-type: none"> <li>Review completed in 2004 revealed that minor changes were</li> </ul>	

	Agricultural Practice for the protection of soil	<p>needed, but that the COGAP is still valid in terms of content.</p> <ul style="list-style-type: none"> <li>Defra plan to revise the three existing COGAPs (soil, water, air) and develop a more integrated code. This is currently being drafted and a first draft is expected September 2006. There will be further consultation with stakeholders before the document is finalised.</li> </ul>	<b>G</b>
33	Defra will work with the farming industry to examine current and/or novel means of encouraging voluntary change in soil management	<ul style="list-style-type: none"> <li>Defra is working with industry stakeholders to assess the merit of a voluntary initiative for nutrient management. An industry (AIC, NFU, LEAF, RSPB, CLA) outline plan for a voluntary initiative for nutrient management was presented in February 2006. This is set within a timeframe of the next 2-3 years and envisages the development of existing tools/systems rather than creating new structures. Soil management is part of this consideration and wider engagement is expected to develop the plan.</li> </ul>	<b>G</b>
34	Defra will work with partners to fund further research on the relationships between farm soil management practice, physical characteristics, functions of soils and subsequent impacts	<ul style="list-style-type: none"> <li>There is ongoing research in this area, for example, projects are being undertaken on sludge to land; impact of organic carbon returns to soil quality; and documenting soil erosion rates.</li> <li>Defra is undertaking research into the application of biowaste to land.</li> </ul>	<b>A</b>
35	With the Forestry Commission, Defra will examine the scope for inclusion of soil issues in the England Woodland Grant Scheme	<ul style="list-style-type: none"> <li>Defra have prepared a consultation on a review of the England Forestry Strategy, in consultation with the Forestry Commission and the England Forestry Forum which is out for consultation until 9 August 2006. Soil issues have been included in the review e.g. the need to protect the soil resource, retain soils coverage and retain stores of soil carbon.</li> </ul>	<b>Complete</b>
36	Defra will work with partners to re-examine current soil management advice,	<ul style="list-style-type: none"> <li>This action will be taken on in conjunction with Action 32. See Action 32 for detail.</li> </ul>	

	to take account of the potential impacts of inappropriate management on flooding, aquifer recharge and water and air quality		<b>G</b>
37	Defra will complete research, and take account of results, to provide further understanding of the role that land and soil management might play in flood management at water catchment level	<ul style="list-style-type: none"> <li>• First Government response to 'Making space for water' consultation exercise was published in March 2005. Within this it states that priority research will be undertaken into the role rural land management techniques might play in managing flood risk at catchment level. Pilots will also be funded to test different approaches to integrated management. These pilots will look at upstream catchments where appropriate and may include encouraging rural land management changes.</li> </ul>	<b>Complete</b>
38	Defra will research the capacity of different soils to attenuate substances in relation to the protection of groundwater	<ul style="list-style-type: none"> <li>• Considerable research has been undertaken in this area; we are considering with the EA what further work is required and, if necessary, who should lead on this.</li> </ul>	<b>A</b>
39	Defra will work with the Environment Agency and other partners to continue to examine a range of policy options for the control of sediment and soil-bound nutrient losses to water	<ul style="list-style-type: none"> <li>• We are fully engaged with the development of the Catchment Sensitive Farming programme and are pleased with the emphasis placed on good soil management.</li> <li>• EA, working in partnership with RDS and EN, developed a methodology to identify areas prone to soil erosion and enhanced runoff for targeting areas under HLS and CSF. The work was used in combination with the EN 105 sites to identify the 40 catchments for action under the CSF programme.</li> <li>• A project has been commissioned to complement CSF, seeking to establish whether or not management practices can be encouraged that could lead to a sustainable increase in, or reduced loss of, soil organic matter. While the project will seek to add value to the CSF Programme, it will be independent of this work, focussing on organic matter.</li> </ul>	<b>G</b>

40	Defra and partners will review and synthesise the published material on links between biodiversity, pollution, contamination and land management, to identify an initial list of biological and biochemical indicators of functional diversity	<ul style="list-style-type: none"> <li>• This action is being covered by Action 11.</li> <li>• Research being undertaken by Centre for Ecology and Hydrology on biological indicators (SQID1) is now complete. The second phase, field testing the top thirteen indicators over the next 3 years, has started.</li> </ul>	<b>G</b>
41	Defra will consider with English Nature and other partners the benefits which might arise from the establishment of a national series of benchmark sites for soil biodiversity	<ul style="list-style-type: none"> <li>• A research project was planned to tackle this action, but EN and Defra have agreed to hold this project pending results of the wider research on site monitoring network proposals. EN is supporting phase 3 of Scottish Natural Heritage's project on soil conservation values which also supports this objective.</li> </ul>	<b>G</b>
42	English Nature will prepare a position statement on the role of soil management and protection within statutory nature conservation sites	<ul style="list-style-type: none"> <li>• English Nature's Council discussed a paper on soils and nature conservation at its June 2005 meeting. Copies of the paper are available on the EN website.</li> <li>• Minutes of this meeting are also available on the website detailing Council discussion and approval of the paper. EN is no longer publishing formal position statements because of the impending change to Natural England, so it has been agreed with Defra that these papers act as EN's position and complete this action.</li> </ul>	<b>Complete</b>
43	English Nature will publish guidance on the use of soil information in the restoration of wildlife and wildlife habitats	<ul style="list-style-type: none"> <li>• English Nature awarded a contract for this work to NSRI working with Creswell Associates. The project ran October-December 2005 and the main report will be published in the next three months. Following this a glossy overview leaflet will be produced.</li> </ul>	<b>G</b>
44	English Heritage will monitor the state of the landscape and historic environment and, where needed, develop new	<ul style="list-style-type: none"> <li>• Contract for this work has been let to Stirling University. A work plan is in the course of being agreed, with the draft report expected by September 2006.</li> </ul>	<b>A</b>

	indicators	<ul style="list-style-type: none"> <li>The delay in developing and testing the cultural heritage indicators will put them as a second tier to the others (see Action 11).</li> </ul>	
45	English Heritage will research into the threats and mechanisms of loss and degradation of soils supporting historic landscapes	<ul style="list-style-type: none"> <li>A revised draft of the English Heritage (EH) Research strategy for the preservation of archaeology <i>in situ</i> is in preparation and will be considered by the EH Research Board in summer 2006.</li> </ul>	<b>G</b>
46	English Heritage will improve understanding of soils and the historic landscape through research on the importance of the landscape and historic environment to the economy, and to quality of life	<ul style="list-style-type: none"> <li>The EH Research Strategy 2005-2010 was published in October 2005; it identifies further social and economic research as a key priority. Plans for research in this area are under active discussion following the appointment of a new Head of Social and Economic Research.</li> </ul>	<b>G</b>
47	Defra will promote with industry better understanding of the potential benefits to sustainable construction through specific tests and British Standards for soil use	<ul style="list-style-type: none"> <li>NSRI report on the review of British Standards is available on the Defra website.</li> <li>This action is being taken forward in conjunction with Action 4. See Action 4 for progress.</li> </ul>	<b>G</b>
48	Defra will continue to support the development of recycling and composting to provide alternative growing material and soil conditioners to peat	<ul style="list-style-type: none"> <li>Progress on this action is covered by Action 21. See Action 21 for detail</li> </ul>	<b>A</b>
49	Defra will examine the practicality of introducing and monitoring a programme to integrate minerals and waste policies which will increase the recycling of materials for re-use or for restoration	<ul style="list-style-type: none"> <li>We are involved with the Composting Standards working group, which is in part seeking to define a "market" for compost, that will not damage the environment or human health.</li> <li>Defra is working with the Devolved Administrations, EA and WRAP to develop an agreed technical standard for the recycling of organic materials to land, based on PAS100 criteria.</li> </ul>	<b>A</b>

50	Defra will consult the Environment Agency and local planning authorities to improve monitoring of use of soils in relation to built development, compliance with soil protection conditions of planning permissions, and for reducing off-site impacts	<ul style="list-style-type: none"> <li>• This action is being taken forward in conjunction with Actions 4 and 14. See these actions for progress.</li> </ul>	<b>G</b>
51	Defra will continue to work closely with DCLG, minerals planning authorities, and the industry, to promote and develop practical guidance on minerals site restorations and aftercare	<ul style="list-style-type: none"> <li>• RDS guidance on site restoration has been sent to mineral planning authorities and is also available on the Defra website.</li> </ul>	<b>Complete</b>
52	The Defra Soils Team will measure and report progress on all actions	<ul style="list-style-type: none"> <li>• Progress reports are produced twice yearly for use at Advisory Forum meetings.</li> <li>• An informal monthly newsletter of progress is also produced to keep the AF informed of developments.</li> </ul>	<b>G</b>