

## CAMPAIGN FOR THE FARMED ENVIRONMENT: SUMMARY OF EVIDENCE

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Main Authors: Lindsey Clothier ([Lindsey.j.clothier@defra.gsi.gov.uk](mailto:Lindsey.j.clothier@defra.gsi.gov.uk)) and Tony Pike ([Tony.pike@defra.gsi.gov.uk](mailto:Tony.pike@defra.gsi.gov.uk))

### Key Findings

The Campaign for the Farmed Environment (CFE) was launched in November 2009 as an industry-led<sup>1</sup> alternative to regulation. Formal targets were set in order to assess the Campaign's performance and a programme of monitoring and evaluation was put in place to monitor progress and to provide a wider assessment of the Campaign. Whilst not all of the formal targets have been met, there is good evidence of the positive impact of the Campaign. This paper provides a high level summary of the evidence collected during the Campaign. The full evidence base has been published on the [Defra website](#). The key findings are:

- **Key targets** - there has been mixed success in meeting the land management targets. There has been an increase in the area of land managed voluntarily towards environmental objectives (target met) but the area of un-cropped land has decreased (target not met). The uptake of key Entry Level Stewardship options has increased but the target was not met, however the uptake of Higher Level Stewardship options significantly exceeded the target.
- **Environmental management and outcomes** - the target to improve the management of un-cropped land has been met (although this was at a lower base level) but overall, the management of voluntary measures did not consistently apply all of the recommended management prescriptions. The field surveys suggested that a sizeable proportion of land with voluntary measures will not have maximised environmental benefits.
- **Attitudes to the Campaign** - there has been a high level of support for the aims and approach of the Campaign but this has not been translated into widespread uptake of the voluntary measures or key Environmental Stewardship option uptake. Awareness of the Campaign has been high but this contrasts with lower levels of understanding.
- **Targeted delivery** - there has been a significant difference between target and non-target counties in the uptake of both un-cropped land and managed voluntary measures, providing evidence of success of the Campaign through the targeted approach to local delivery.
- **The partnership approach** - the Campaign has had notable wider benefits including the **collaborative approach** (bringing together partners towards shared objectives) **local engagement**, participation and delivery (local liaison groups, messaging etc), wider **industry support** (including through the media, agronomists and professional farm advisers) and **behavioural change** i.e. shaping social norms within the industry towards shared objectives towards positive environmental management.

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<sup>1</sup> The Campaign was proposed by farming organisations working in partnership with, government and environmental groups as an industry-led alternative to regulation. The Campaign was launched in November 2009 and was initially funded until July 2012 and extended until December 2012.

## Background

The Campaign for the Farmed Environment (CFE) was launched in November 2009 as an industry-led<sup>2</sup> alternative to regulation. The Campaign's goal was to retain and exceed the environmental benefits of land previously required to be set aside under the Single Payment Scheme. This was to be done by promoting activities by farmers and land managers that would secure a national geographical spread of benefits to:

- (a) Farmland birds, to address the three key requirements of wild birds, namely over-wintering feeding habitat, spring/summer breeding sites and spring feeding opportunities;
- (b) Resource protection, to address soil conservation and water protection by locating un-cropped areas, buffer strips and/or adopting agronomic practices which minimise the risk of soil erosion and diffuse pollution to water; and
- (c) Biodiversity provision, to retain/create areas of un-cropped or open habitat that diversify the arable landscape and provide opportunities for open ground species, and feeding and breeding sites for more common species.

The activities were to be undertaken voluntarily, through the uptake of environmental actions selected from a suite of 'voluntary measures'<sup>3</sup>, and/or through participation in Environmental Stewardship (ES) by incorporating key, higher value, "in field" options into ES agreements<sup>4</sup>. A number of formal targets were set in order to assess the performance of the Campaign and a programme of monitoring and evaluation was put in place to monitor progress as well as providing a wider assessment of the Campaign.

## The evidence base

A wide range of evidence has been gathered in order to monitor the Campaign's progress. The main sources are published together on the Defra website and provide the definitive data for measuring the success of the Campaign:

Source	Purpose
<a href="#">Annual Defra monitoring survey</a>	To monitor farmer attitudes to the Campaign and uptake of voluntary measures
<a href="#">Annual quality assessments and verification monitoring, FERA</a>	To monitor the implementation, management and environmental benefits of the Campaign's voluntary measures.
<a href="#">Natural England data on ES scheme and option uptake</a>	To monitor uptake and geographical spread of Campaign options within ES agreements
<a href="#">Farm Business Survey 2010/11</a>	To assess farmer understanding and attitudes to the Campaign in relation to farm economic performance
<a href="#">Evaluation of partnership, local and wider impacts, CCRI, 2012</a>	To examine, through in-depth interviews, the national partnership approach and local delivery aspects of the Campaign.

<sup>2</sup> The CFE partnership includes the National Farmers Union (NFU), Country Land and Business Association (CLA), Agricultural Industries Confederation (AIC), Game and Wildlife Conservation Trust (GWCT), Linking Environment and Farming (LEAF), Royal Society for the Protection of Birds (RSPB) Central Association of Agricultural Valuers (CAAV), Association of Independent Crop Consultants (AICC) Defra and its agencies; Natural England and the Environment Agency.

<sup>3</sup> Annex B provides the list of agreed Campaign voluntary measures and essential management requirements to deliver the environmental benefit.

<sup>4</sup> Annex C provides the agreed list of Environmental Stewardship options within the Campaign targets.

Source	Purpose
<a href="#">Farmer attitudes and evaluation of outcomes to on-farm environmental management, CCRI, University of Exeter, FERA, report to be published in early 2013</a>	To explicitly explore the link between farmers' attitudes to environmental management, their subsequent behaviour, and the perceived and actual environmental benefits.

## Formal targets

The Campaign has achieved some, but not all, of the formal targets that were set (Table 1). There have clearly been both successes and failures not only in terms of uptake and delivery, but also in the manner in which the original targets were set<sup>5</sup> making some difficult to interpret and evaluate effectively.

Table 1: Progress against Campaign targets

Target	December 2012 target	Latest data	Target met?
1. To increase the uptake of key arable target options in ELS.	80,000 ha	57,773 ha (a)	✗
2. To double the uptake of 'more of the same' options in HLS.	16,800 ha	25,277 ha (a)	✓
3. To help achieve Natural England's target of 70% of farmland within an agri-environment agreements by March 2011	70%	70%	✓
4. To double the uptake of ELS options EE9 and EE10 (6m buffer strips next to watercourses).	9,760 ha	4,230 ha*	✗
5. To retain and increase the area of un-cropped land from the 1 January 2008 baseline by 20 000ha.	179,000 ha	136,100 ha (b)	✗
6. To increase the area of land managed voluntarily by 30 000ha above current levels.	188,700 ha	214,900 ha (c)	✓
7. To promote participation in the Campaign by those farmers outside agri-environment agreements.	60%	54% (c)(d)	≈
8. To seek to improve the environmental management of at least one third of the un-cropped land.	59,600 ha	80,000 ha (c)	✓
9. To encourage farmers and land managers to take up voluntary measures which have the greatest environmental value.	No measurable target set	n/a	n/a

(a) Natural England, 31<sup>st</sup> December 2012.

(b) Defra June Survey 2012.

(c) Defra February 2012 Survey. Target 6 data includes skylark plots, each assumed to contribute 0.5ha. Target 8 comprises a subset of voluntary measures.

(d) 54% (+/-3%) of farms outside agri-environment schemes either retained some un-cropped land/left cultivable land out of production or declared land under voluntary options [within and outside Campaign] or both.

<sup>5</sup> "The Campaign for the Farmed Environment: evaluation of partnership, local and wider impacts", CCRI, 2012.

## Commentary on achievement of targets

The area of un-cropped land<sup>6</sup>, a key Campaign target, has fallen in successive years, to 136,100 hectares in 2012 compared to a baseline of 179,000 hectares in 2008. This has been against a backdrop of high crop prices, that encouraged cultivation, and uncertainty about the future for the Common Agricultural Policy. However, there has been a notable increase in the area of land that farmers have recorded as being managed voluntarily<sup>7</sup> for the environment (52,000 ha over the life of the Campaign) although subsequent field work<sup>8</sup> suggests some mis-recording of this land by farmers within the annual monitoring surveys.

The annual monitoring surveys have shown increasing support for the Campaign's aims and approach amongst arable farmers<sup>9</sup>, but that this has not been translated into widespread uptake of the key Environmental Stewardship options or Campaign voluntary measures. Approximately half of arable farmers recorded land within at least one of the Campaign voluntary measures in 2012. Whilst there was found to be little difference in uptake between those in and outside agri-environment schemes, the level of understanding of the Campaign was found to be a significant contributory factor. The 2012 annual monitoring survey found that just 23% of arable farmers recorded having a "good understanding" of the Campaign. The complexity of the messaging and poor initial communication have been highlighted by respondents to both the partnership evaluation (and other interview research<sup>10</sup>), although this study also noted that, given the short time frame, the Campaign has been "extremely successful in raising awareness about its activities. Improving understanding is likely to take longer".

Whilst CFE was a national Campaign, the approach taken to focus delivery within 23 target counties<sup>11</sup> has provided a comparison group of arable farms outside these areas, against which the effectiveness of the local delivery aspects of Campaign can be measured. Analysis of survey and ES scheme data suggests that there was a significantly greater uptake of voluntary measures (even when agri-environment scheme uptake and farm type are accounted for) and a greater proportion of arable area within relevant Environmental Stewardship options in the target counties compared to non-target counties (Figures 1 and 2).

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<sup>6</sup> As measured by Defra's June Survey each year.

<sup>7</sup> Annex B lists the Campaign voluntary measures and essential management requirements.

<sup>8</sup> "Campaign for the Farmed Environment: Field verification of Campaign uptake and delivery of environmental benefits. Verification monitoring – Final report", FERA, January 2013.

<sup>9</sup> In February 2012, 69% of arable farmers agreed with the Campaigns aims and 63% with the approach. This compares to 58% and 44% respectively in February 2010.

<sup>10</sup> Farmer attitudes and evaluation of outcomes to on-farm environmental management, CCRI, University of Exeter, FERA

<sup>11</sup> See Annex A for target counties. These were largely chosen to ensure coverage of 75% of former set-aside land.

Figure 1: Uptake of ELS target options within target and non target counties by option area (left) and by option area as a percentage of arable area (right)

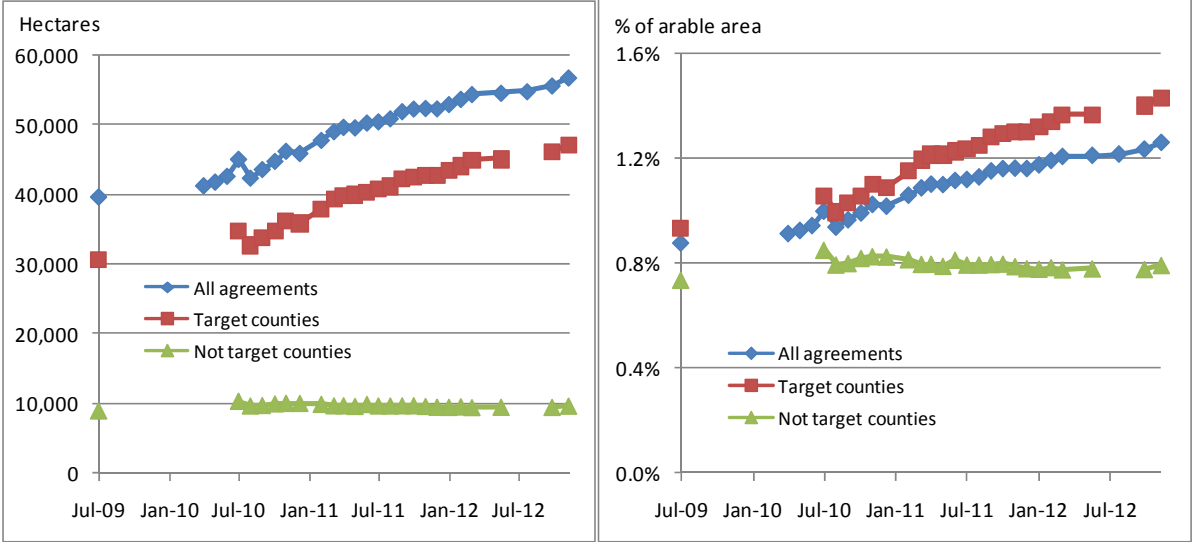
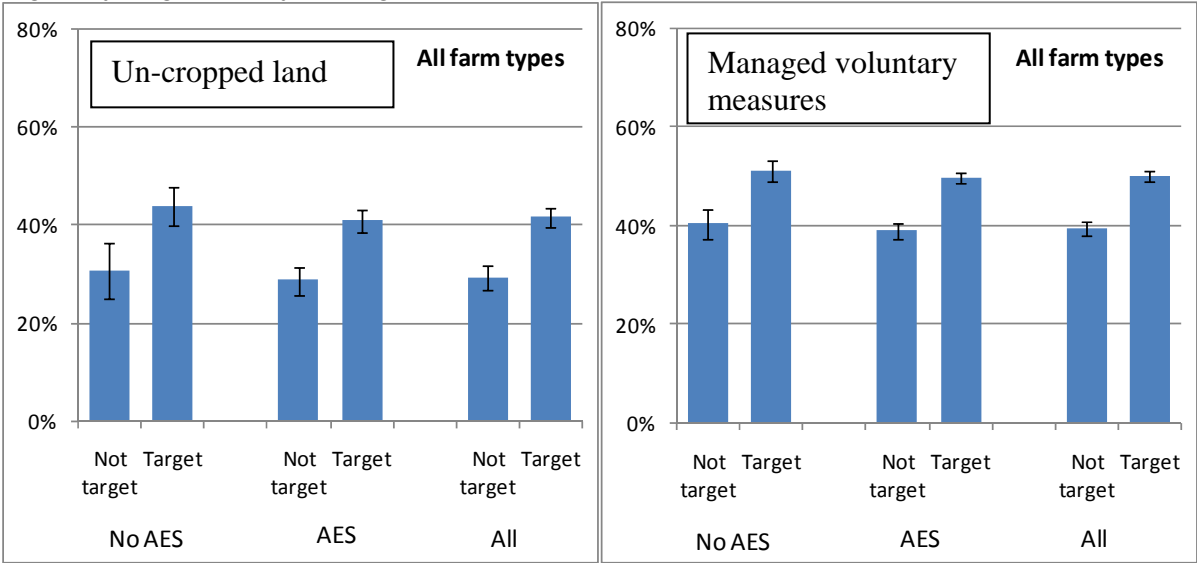


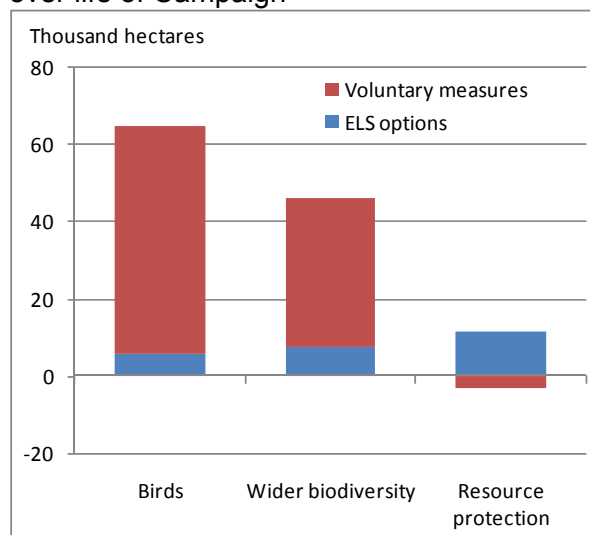
Figure 2: Proportion of farmers reporting un-cropped land (left) and managed voluntary measures (right) by target county and agri-environment scheme (AES) uptake



## Environmental outcomes

The Campaign's goal was to retain and exceed the environmental benefits of set-aside land focusing on the three themes of resource protection, birds and wider biodiversity. Overall there have been net increases in the recorded areas contributing to each theme either through Environmental Stewardship<sup>12</sup> or through voluntary measures (Figure 3). However, it is known from field work<sup>13</sup> that there has been a degree of over-recording of land by farmers within voluntary measures and that, over the three years, between a third and a half of features and area assessed (Figure 4) did not fully meet all of the detailed management requirements (see annex B) to achieve the maximum environmental benefits. However, even if all of the management prescriptions were not met, there may still have been some level of environmental benefit provided<sup>14</sup>. The voluntary nature of the Campaign, whilst important to farmers, meant that most were unaware of the detailed

Figure 3: Change in areas of ELS and recorded voluntary options contributing to each Environmental theme (see Annex D) over life of Campaign



Note: an option/measure may be relevant to more than one theme.

Figure 4: Proportions of assessed features and areas meeting all of the Campaign management requirements in each year



Note: Areas have been weighted to reflect national prevalence.

requirements and those that were aware, did not implement those prescriptions that were not considered appropriate for the farm<sup>15</sup>. Reasons for not fulfilling the requirements were consistent across years for some measures e.g. skylark plots were not established at a sufficient density, stubbles received pre-harvest desiccants and post-harvest herbicides and maize was sown in game covers. Interestingly, there was a very high correspondence in the percentage of features meeting the management requirements between those reported to be within the Campaign and

<sup>12</sup> Measured using ES scheme data held on Natural England's Genesis system. Note that the figure excludes the two buffer strip options (EE9 and EE10) introduced in 2010 as a comparable baseline is not available.

<sup>13</sup> [Annual quality assessments and verification monitoring, FERA](#) on a sample of farms undertaking voluntary measures as part of the Campaign (100 in 2010 and 2011, 75 in 2012) selected from the annual Defra Monitoring Survey. A further 75 farms undertaking similar voluntary measure but declared to be outside the Campaign were also assessed in 2012.

<sup>14</sup> If minor differences are ignored, the proportion of features meeting the management requirements increases from 36% to 51% in 2012.

<sup>15</sup> "Farmer attitudes and evaluation of outcomes to on-farm environmental management", CCRI, University of Exeter, FERA, report to be published in early 2013.

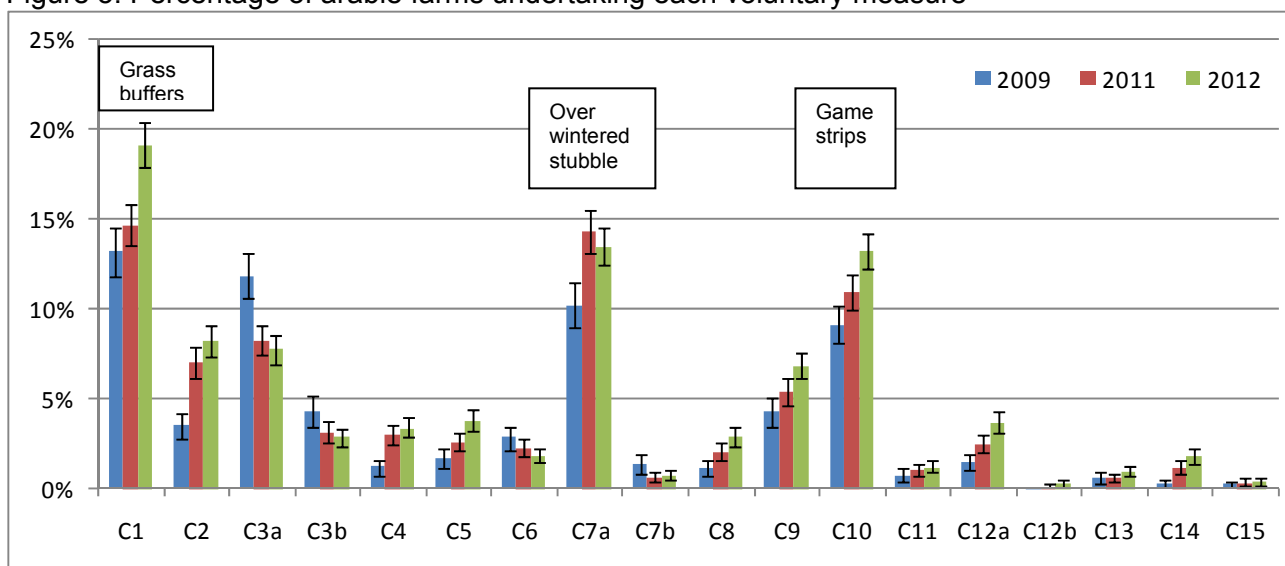
those reported to be managed in a similar manner but, for whatever reason<sup>16</sup>, outside the Campaign.

Fieldwork has also included summer, autumn and winter condition assessments for each of the three years of the Campaign. Results for the first two years suggested improvements in a number of areas (e.g. the condition of reverted arable areas for farmed wildlife and resource protection), but highlighted scope for additional improvement for the intended environmental benefits of the Campaign to be fully realised. Results for the 2012 assessments will be available after March 2013.

The Campaign monitoring has been important in recognising the voluntary environmental management that many farmers undertake but it does suggest that only a small proportion of farmers initiated new management in response to the Campaign. The most popular measures introduced as a result of the Campaign included pollen and nectar mix, wild bird cover and skylark plots (although many of these were not implemented at sufficient density).

Both the type of voluntary measures being taken up and the quality of management relate to the ability to accommodate within the existing farm business. The most common measures were often the 'easiest' with a focus on edge of field rather than in-field measures (Figure 5).

Figure 5: Percentage of arable farms undertaking each voluntary measure



Note: Includes measures recorded as being inside and outside the Campaign. List of measures at Annex B

Margins and field corners tended to fit with existing farm management systems where environmental activities taking place at the periphery of productive land have least impact on agricultural production<sup>17</sup>. Overwintered stubbles were often left for agronomic reasons, fitting into the farmer's rotation and spring cropping.

<sup>16</sup> Various reasons were given by farmers for recording land managed in a similar manner but outside the Campaign. These were mainly related to not quite meeting Campaign requirements, but also included land that pre-dated the Campaign that farmers felt did not qualify.

<sup>17</sup> "Farmer attitudes and evaluation of outcomes to on-farm environmental management", CCRI, University of Exeter, FERA, report to be published in early 2013.

## The partnership approach

The visible success criteria for the Campaign have focussed on achieving quantitative targets, and the monitoring and assessment for the Campaign has focused on measuring progress towards those targets. The CCRI partnership evaluation suggests that the impacts of the Campaign have been more subtle (e.g. high levels of general awareness but low levels of awareness about specific aspects of the Campaign, with relatively low levels of farmer engagement, mostly those already undertaking some form of voluntary management) however significant local and national partnership benefits are identified. The impact of the Campaign has not just been restricted to the core targets but has been successful at bringing partners together and raising the profile of positive environmental management as part of farm business practice with farmers and advisors. Impacts outside the core targets have been demonstrated by:

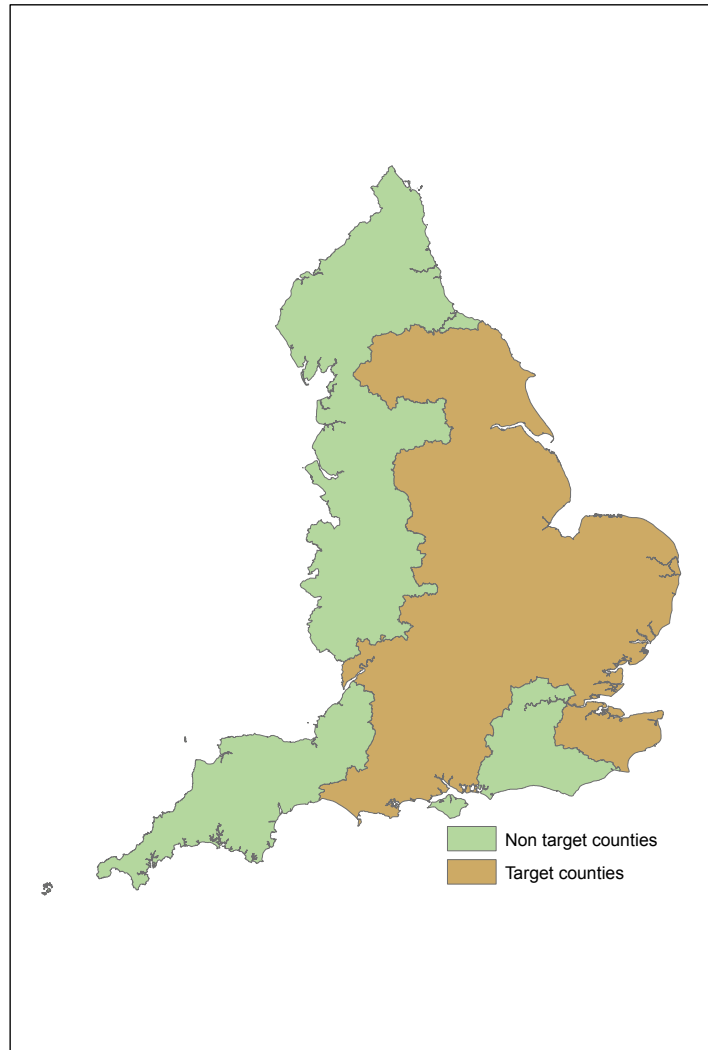
- the **collaborative approach** which has successfully brought partners together towards shared objectives and encouraged closer working between the farming industry, government and environmental groups. Partners have constructively worked together at both the national and local levels e.g. through Local Liaison Groups.
- **local engagement, participation and delivery** which enabled partners at the local level to agree on local priorities, creating a consistent message to farmers from different organisations and improved engagement with farmers. Those involved in delivery felt that the partnership approach enabled them to engage more fully with farmers than before. This was attributed to being able to deliver multiple messages coming from different directions, and from targeting those farmers that had not previously engaged with agri-environment schemes.
- **effective external communications** leading to widespread press coverage (estimated at £1m) and tailoring of the message to the local situation resulted in a more effective communication with farmers. The complexity of the Campaign, however, meant that the farming press focused on raising awareness rather than increasing understanding
- **behavioural change** where there has been evidence of some shaping of social norms within the industry towards shared objectives. It is widely recognised that there has been an increased awareness of environmental land management but the changes in farmer attitudes has not been as great. The partnership evaluation found that at the local level some partners felt that there had been a change in attitudes while others felt that these changes were more subtle and superficial. To move from awareness to deeper behaviour change needs a sustained period of engagement which has been missing to date with the relatively limited period of delivery. The close involvement of farm advisors in the Campaign as partners but also through dedicated training has helped strengthen the potential for longer-term changes in both attitudes and practices.



## Annex A: Campaign Target Counties

The 23 target counties are:

- Bedfordshire
- Berkshire
- Buckinghamshire
- Cambridgeshire
- Derbyshire
- Dorset
- East Yorkshire
- Essex
- Gloucestershire
- Hampshire
- Hertfordshire
- Kent
- Leicestershire
- Lincolnshire
- Norfolk
- North and South Yorkshire
- Northamptonshire
- Nottinghamshire
- Oxfordshire
- Rutland
- Suffolk
- Warwickshire
- Wiltshire



## Annex B: Summary of Voluntary measures and essential management requirements

Measures are marked rotational (R) or permanent or non-rotational (NR);

Measure	Essential management requirements
<b>C1: Grass buffers alongside temporary and permanent watercourses (NR)</b>	<ul style="list-style-type: none"> <li>Establish or maintain a grassy strip with a minimum width of 6m (including the 1m protection zones under cross compliance) alongside a watercourse.</li> <li>Remove any compaction in the topsoil except on archaeological features.</li> <li>Do not cultivate the buffer area after the grassy strip has been established.</li> <li>Do not apply any fertilisers, organic manures or waste materials (including sewage sludge).</li> <li>Do not use the grass area for regular vehicle access, turning or storage. There should be no tracks, wheel ruts, compacted areas or poaching.</li> </ul>
<b>C2: Grass areas to prevent erosion and run-off (NR)</b>	<ul style="list-style-type: none"> <li>Sow or maintain a dense grassy area with a minimum width of 10m either by sowing or by natural regeneration.</li> <li>No fertiliser, organic manures or waste materials (including sewage sludge) can be applied.</li> <li>Do not use the grass area for regular vehicle access, turning or storage. There should be no tracks, wheel ruts, compacted areas or poaching.</li> <li>Do not graze the grass area.</li> <li>Pigs and poultry should be excluded from the area.</li> </ul>
<b>C3a: Reverted arable areas (NR/R)</b> <b>C3b: Optional scrub management (NR/R)</b>	<ul style="list-style-type: none"> <li>Establish or maintain a grassy area with a minimum width of 6m, which should be in addition to cross compliance protection zones next to a hedgerow or watercourse within this width.</li> <li>Maintain the grassy areas by light grazing or at least an annual cut. If cutting, allow the grass to set seed and do not cut the area earlier than 31 July.</li> <li>Remove any compaction in the topsoil and sub soil except on archaeological features.</li> <li>Do not apply any fertilisers, organic manures or waste materials (including sewage sludge) to these areas.</li> </ul>
<b>C4: Skylark plots (R)</b>	<ul style="list-style-type: none"> <li>Plots should be placed in fields greater than 5ha in area and with an open aspect unbounded by trees in order to deliver the greater benefits.</li> <li>Plots can either be established by turning off your seed drill while planting winter cereals or by spraying the plots out before the 31 December. The plots should be at least 3m wide and have a minimum area of 16m<sup>2</sup> (for example, 3m x 6m or 4m x 4m). Plots should be established across the field at a minimum density of roughly 2 plots per hectare.</li> <li>Place the plots away from tramlines (a middle spot between two sets of tramlines is best) and field boundaries/margins (at least 50m into the field) in order to minimise nest predation.</li> <li>There must be no mechanical weeding of plots.</li> </ul>
<b>C5: Fallow plots/un-cropped, cultivated areas for ground-nesting birds on arable land (NR/R)</b>	<ul style="list-style-type: none"> <li>This measure should be used in large arable fields with an open aspect well away from trees and woodland.</li> <li>The fallow area/plot should be located in fields larger than 2ha.</li> <li>Do not locate fallow areas where they may generate erosion or provide run-off pathways for sediment or where there are archaeological features.</li> <li>The cultivated area must be at least 1ha and not exceed 2.5ha and at least 100m wide.</li> <li>Produce the rough fallow (for example, by using tines or discs) between 1 February and 20 March to make sure it is in place in time for the first breeding attempts of farmland birds.</li> <li>The fallow plots must be retained until 31 July.</li> <li>Do not apply fertilisers, organic manures or waste materials (including sewage sludge).</li> </ul>
<b>C6: Overwinter stubble followed by spring/summer fallow (R)</b>	<ul style="list-style-type: none"> <li>This measure should be located on an arable field following harvest of any crops except maize, and should be retained until 31 July in the following year.</li> <li>On sloping fields tramlines should be subsoiled, following harvest, where compaction may lead to erosion and run-off, except where there are archaeological features or when conditions are wet.</li> <li>No fertiliser, organic manures or waste materials (including sewage sludge) can be applied during this time.</li> </ul>

	<ul style="list-style-type: none"> <li>• Herbicides can be applied for weed control from 15 May.</li> <li>• Do not apply pre-harvest dessicants or post-harvest herbicides to the crop/stubble (except on oil seed rape crops).</li> <li>• Do not cut the vegetation before 31 July.</li> </ul>
<b>C7a: Overwinter stubble (R)</b> <b>C7b: Optional for vulnerable soils (R)</b>	<ul style="list-style-type: none"> <li>• Do not apply pre-harvest desiccants or post-harvest herbicides to the crop/stubble (except for desiccants on oilseed rape crops).</li> <li>• Do not locate where there is a moderate to high risk of soil erosion/run-off.</li> <li>• On sloping fields tramlines be subsoiled, following harvest, where compaction may lead to erosion and run-off, except where there are archaeological features or when conditions are wet.</li> <li>• Do not apply any pesticides, fertilisers, manure (including manure heaps) or lime to the stubble.</li> <li>• Do not top or graze.</li> <li>• Stubbles may be ploughed from 15 February if essential to establish a following crop, BUT leaving them for longer will provide valuable food resources at a time of year when research has shown that many birds struggle to find enough to eat.</li> </ul>
<b>C8: Un-cropped cultivated margins (NR/R)</b>	<ul style="list-style-type: none"> <li>• Do not place this measure: <ul style="list-style-type: none"> <li>– Within 6m of a watercourse (or ideally a road).</li> <li>– On land at moderate or high risk of soil erosion (use Soil Protection Review Soil Risk Matrix to determine the risk).</li> <li>– On land prone to pernicious weed problems.</li> </ul> </li> <li>• Cultivate an arable field margin annually, in either spring or autumn to a depth of about 15cm (6 inches), but not in moist conditions where it may lead to compaction and do not overwork the soil where it may cause capping and increase the risk of run-off.</li> <li>• Margins should be a minimum of 3m wide (this is not inclusive of the cross compliance uncultivated buffer zones next to a hedgerow).</li> <li>• No fertiliser, organic manures or waste materials (including sewage sludge) can be applied during this time.</li> <li>• Do not apply any pesticides (except after seed set if necessary).</li> </ul>
<b>C9: Wild bird seed mixture – arable/grassland areas (NR/R)</b>	<ul style="list-style-type: none"> <li>• Sow in blocks and/or strips averaging at least 6m wide at the edges of fields (this should be in addition to the cross compliance protection zone next to a hedgerow/watercourse) with a minimum area of 0.4ha.</li> <li>• Do not include giant sorghum or maize in the wild bird seed mix.</li> <li>• Retain the crop mixture until at least 1 March before re-establishment.</li> <li>• Only apply insecticides during establishment where there is a strong risk of crop failure due to severe pest attack (identified through monitoring and use of thresholds). Advice must be taken from a BASIS professional before any insecticides are used. Seed treatments are preferred.</li> <li>• Do not graze.</li> </ul>
<b>C10: Game strips (NR/R)</b>	<ul style="list-style-type: none"> <li>• Establish a game mixture (but not maize or giant sorghum) as a strip or block.</li> <li>• The game strip must be retained until mid February in the year that the area is returned to crop production.</li> <li>• Do not graze.</li> </ul>
<b>C11: Unharvested cereal headlands (NR/R)</b>	<ul style="list-style-type: none"> <li>• Sow and manage a 3–6m wide cereal headland along the edge of an arable crop outside the cross compliance protection area. This could be simply sown as part of your normal cereal rotation in that field.</li> <li>• Do not apply insecticides between 15 March and the following harvest.</li> <li>• Leave untreated with pesticides except where necessary to protect the adjacent crop or to control pernicious weeds. Graminicides for grass weed control are allowed where applicable and amidosulfuron is allowed for cleaver control.</li> <li>• If autumn sown the area must be left for 18 months so that the grain is available for farmland birds through the second winter. Spring sown margins must be left for 12 months.</li> <li>• No fertiliser, organic manures or waste materials (including sewage sludge) can be applied.</li> </ul>
<b>C12a: Pollen and nectar mixtures for</b>	<ul style="list-style-type: none"> <li>• Sow in blocks and/or strips at least 6 m wide at the edges of fields (this should be in addition to the cross compliance protection zone next to a hedgerow or watercourse), in early spring or late summer.</li> </ul>

<b>arable or grassland areas (NR/R)</b> <b>C12b: Optional for use with horticultural crops (NR/R)</b>	<ul style="list-style-type: none"> <li>• The mixture should contain at least four nectar-rich plants (for example, red clover, alsike clover, birds-foot-trefoil, sainfoin, musk mallow, common knapweed) with no single species making up more than 50 per cent of the mix by weight.</li> <li>• Remove any areas of soil compaction prior to establishment except on archaeological features.</li> <li>• Cut the whole area to 10cm between 15 September and 31 October, removing or shredding cuttings to avoid patches of dead material developing.</li> <li>• Do not graze in the spring or summer.</li> <li>• No pesticides, fertiliser, organic manures or waste materials (including sewage sludge) can be applied.</li> </ul>
<b>C13: Sown wildflower headlands (NR)</b>	<ul style="list-style-type: none"> <li>• Establish the margin with a minimum average width of 6m which should be in addition to the cross compliance protection zones next to a hedgerow/watercourse).</li> <li>• Remove any areas of soil compaction prior to establishment except on archaeological features.</li> <li>• The headland should be cut annually in the autumn/winter.</li> <li>• Cuttings should be removed to benefit flower production and survival.</li> <li>• Do not apply pesticides fertilisers, organic manures or waste materials (including sewage sludge) on the wildflower margin area.</li> <li>• Sow a mix of fine-leaved grasses and flowers, such as knapweed, bird's-foot-trefoil, self-heal, oxeye daisy and yarrow.</li> </ul>
<b>C14: Selective use of spring herbicides</b>	<ul style="list-style-type: none"> <li>• Do not use an autumn herbicide and reduce the spring herbicide regime to a single application of a selective herbicide (amidosulfuron) to remove only the most competitive weeds.</li> <li>• The herbicide programme to encourage beneficial species should be carefully tailored by your adviser to the soil type and weed spectrum present at any particular site and circumstances and impact on subsequent crops must be considered.</li> <li>• Do not use this measure where there are known to be undesirable weed species or in particular problem grass species.</li> <li>• Do not use this measure where there is known herbicide resistance within the weed population.</li> </ul>
<b>C15: Enhanced management of short rotation coppice – willow or poplar only (NR)</b>	<ul style="list-style-type: none"> <li>• This measure only applies to SRC, not Miscanthus. Only SRC planted on previously cropped land will qualify.</li> <li>• Do not locate SRC in open areas where bird species such as grey partridge, stone curlew and yellow wagtail are present, or adjacent to damp grassland areas used by waders such as lapwing, snipe, curlew and redshank.</li> <li>• Do not plant individual blocks larger than 3 ha without including 8m rides ( to allow light to penetrate) or other open un-cropped areas between them. Restrict plot sizes to 15 ha maximum.</li> <li>• Follow landscape design guidance in Forestry Commission guideline note (Bell and McIntosh, 2001).</li> <li>• Maintain 8m margins around plantations.</li> <li>• Herbicide applications are permitted for the establishment of the crop but not thereafter i.e. the planting year and immediately after the first cut.</li> <li>• Do not use insecticides. If insecticide use is necessary, this area cannot be recorded as Campaign voluntary measure for one year to allow for recovery.</li> <li>• Fertiliser and manure applications should be restricted to those recommended in Defra's Best Practice Guidelines. Do not apply to headlands and rides.</li> <li>• After the first year, cut margins and rides only as necessary and no more than twice a year. Do not cut the crop, the margins or rides between 1 March and 31 July. Leave 1 – 2 metres uncut next to the hedge or other boundary, unless cutting is necessary to prevent scrub growth.</li> <li>• Harvest blocks in different years to provide a range of habitat structures of different age classes with the landscape.</li> <li>• Avoid soil compaction and remove if occurs. Refer to the Soil Protection Review for guidance, in particular the Principles of Good Soil Husbandry (page 18) and Short Rotation Coppice (page 44).</li> </ul>

## Annex C: Target Environmental Stewardship options

Option code	Scheme	Description
EF1	ELS	Field corner management
EF2 & EF2NR	ELS	Wild bird seed mixture
EF3**	ELS	Wild bird seed mixture on set-aside land
EF4	ELS	Nectar flower mixture
EF5**	ELS	Pollen and nectar flower mixture on set-aside land
EF7	ELS	Beetle banks
EF8	ELS	Skylark plots
EF9	ELS	Unfertilised cereal headlands within arable fields
EF10	ELS	Unharvested cereal headlands within arable fields
EF11	ELS	Un-cropped, cultivated margins for rare plants on arable land
EF13*	ELS	Un-cropped, cultivated areas for ground-nesting birds – arable
EF15*	ELS	Reduced herbicide cereal crop preceding over-wintered stubble
EF22*	ELS	Extended overwintered stubbles
EG2 & EG2NR	ELS	Wild bird seed mixture in grassland areas
EG3	ELS	Nectar flower mixture in grassland areas
EG4	ELS	Cereals for whole crop silage followed by over wintered stubbles
EG5**	ELS	Brassica fodder crops followed by over wintered stubbles
EJ5*	ELS	In-field grass areas
EJ9*	ELS	12m buffer strips for watercourses on cultivated land
EJ13*	ELS	Winter cover crops
HF1	HLS	Management of field corners
HF2 * HF2NR	HLS	Wild bird seed mixture
HF4	HLS	Nectar flower mixture
HF7	HLS	Beetle banks
HF8	HLS	Skylark plots
HF9 & HF9NR	HLS	Unfertilised cereal headlands
HF10 & HF10NR	HLS	Unharvested cereal headlands
HF11	HLS	Un-cropped, cultivated margins for rare plants
HF13 & HF13NR	HLS	Un-cropped, cultivated areas for ground-nesting birds – arable
HF15 & HF15NR	HLS	Reduced herbicide cereal crop preceding over-wintered stubble
HG4	HLS	Cereals for whole crop silage followed by over wintered stubbles
HJ5	HLS	In-field grass areas to prevent erosion or run-off
HJ9	HLS	12m buffer strips for watercourses on cultivated land
HJ13 & HJ13NR	HLS	Winter cover crops

\* Option available to new or renewing agreements from January 2010

\*\* Option not available to new or renewing agreements from January 2010

**Annex D Campaign Voluntary Measures and Environmental Stewardship options with target benefits**

Code	Measure	Target benefits		
		Farmland birds	Wider biodiversity	Resource protection
C1	Grass buffers alongside temporary and permanent watercourses		√	√
C2	Grass areas to prevent erosion and run-off			√
C3a	Reverted arable areas		√	√
C3b	Optional scrub management		√	√
C4	Skylark plots	√		
C5	Fallow plots for ground-nesting birds on arable land	√	√	
C6	Overwinter stubble followed by spring/summer fallow	√	√	
C7a	Overwintered stubble	√	√	
C7b	Overwintered stubble on vulnerable soil		√	√
C8	Un-cropped cultivated margins	√	√	
C9	Wild bird seed mixture – arable/grassland areas	√		
C10	Game strips	√		
C11	GWCT unharvested cereal headlands	√	√	
C12a	Pollen & nectar mixtures for arable or grassland areas	√	√	
C12b	Optional flower mix for use with horticultural crops	√	√	
C13	Sown wildflower headlands	√	√	√
C14	Selective use of spring herbicides	√	√	
C15	Enhanced management of Short Rotation Coppice		√	

Code	ELS option	Target benefits		
		Farmland birds	Wider biodiversity	Resource protection
EF1	Field corner management		√	√
EF2	Wild bird seed mixture	√		
EF3	Wild bird seed mixture on set-aside land	√		
EF4	Nectar flower mixture	√	√	
EF5	Pollen + nectar flower mixture on set-aside land	√	√	
EF7	Beetle banks		√	
EF8	Skylark plots	√		
EF9	Unfertilised cereal headland within arable fields	√	√	
EF10	Unharvested cereal headland within arable fields	√	√	
EF11	Un-cropped, cultivated margins for rare plants on arable land	√	√	
EF13	Un-cropped cultivated areas for ground-nesting birds - arable	√	√	
EF15	Reduced herbicide cereal crop preceding over-wintered stubble	√	√	
EF22	Extended overwintered stubbles	√	√	
EG2	Wild bird seed mixture in grassland areas	√		
EG3	Pollen & nectar mixtures for arable or grassland areas	√	√	
EG4	Optional flower mix for use with horticultural crops	√	√	
EG5	Brassica fodder crops followed by over-wintered stubbles	√	√	
EJ5	In-field grass areas			√
EJ9	12m buffer strips for watercourses on cultivated land		√	√
EJ13	Winter cover crops			√