



**Rural Payments Agency  
and  
Natural England**

**Recapturing the environmental benefits  
of set-aside**

**Executive Summary of XC1 Final  
Implementation Report**

**December 2008**

**This joint report is the culmination of a project that was completed in December 2008 based on the best available information and assumptions at that time. Since the report was completed, the continuing discussions undertaken to further develop the proposal may impact on the assumptions and figures used in this report.**

## EXECUTIVE SUMMARY

### **1.1 Policy Background**

Set-aside became compulsory in 1992, primarily as a means to reduce the “grain mountain” as part of the Common Agricultural Policy. It was originally set at 15% and reduced to 10% in 1996.

In September 2007 the European Commission agreed a 0% set-aside requirement for the 2008 harvest in order to try and increase cereals supply to the market and therefore reduce prices following two consecutive lower EU harvests.

In its Communication of November 2007 the Commission anticipated set-aside's permanent abolition and noted the need to preserve the environmental benefits as part of the Health Check. This abolition was included with the Health Check proposals and the intention re-iterated in Commission papers in November 2008.

Following the Commission's decision in September 2007, the Secretary of State announced an immediate programme of environmental monitoring of farmland. He also announced that Defra would be looking at how the Entry Level (ELS) strand of Environmental Stewardship can help to mitigate any environmental impact caused by the loss of set-aside, and that he would be prepared to take further action depending on the significance of the environmental impact.

Sir Don Curry's High Level Set-Aside Group was set up in 2007 by the Secretary of State to oversee the monitoring of the environmental impact of 0% set-aside and, if justified, recommend options for mitigating its loss. Through Sir Don Curry's High Level Set-Aside Group a body of evidence was collected suggesting that set-aside had benefited farmland bird populations and a range of plant species and had reduced sediment and phosphate run-off in catchments where there were significant areas of farmland at high risk of erosion. In his interim report to the Secretary of State in April 2008, Sir Don said that he felt the scale of the likely environmental losses would be such that they could not be offset by voluntary measures alone.

A number of policy options (XC1 – XC3) were defined in the July 2008 report from Sir Don Curry, following discussion with the High Level Group. The preferred policy option (XC1) would introduce a new cross-compliance condition, requiring farmers in England to manage a small percentage of their cultivated land primarily for environmental purposes. At the time it was felt that this requirement could be met in a number of simple ways, not all of them requiring cultivated land to be taken entirely out of productive use. Entry Level Stewardship (ELS) 'top-up' options would also be available to reward those prepared to undertake more demanding Environmental Management on this land, though they would only reward the additional management costs.

Sir Don's High Level Set-Aside Group's Final Report, published in July 2008, summarised the findings from the monitoring programme and recommended that the Secretary of State pursue option XC1 - putting a percentage of land into environmental management with top-up options on this land for farmers in environmental stewardship schemes.

Following the publication of the Sir Don's High Level Set-Aside Group's Final Report the Secretary of State responded to Sir Don Curry's High Level Group Report by stating that he felt Policy Option XC1 was the best mitigation package to offset the loss of environmental benefits that had developed on set-aside and other un-cropped land. The Secretary of State then asked RPA and Natural England to work together to recommend practical options for implementing XC1 in time for the 2009/10 cropping year (SPS 2010).

## 1.2 Purpose and content of this document

This document summarises RPA and Natural England's technical work on what XC1 might look like in practice and assesses what it might achieve. It also presents and evaluates some options for its implementation, looking at the benefits, risks and impacts of the different options.

## 1.3 How XC1 might operate

The cross-compliance requirement would be to have a percentage of a holding's cultivated land in Environmental Management. Cultivated land would be defined rather more narrowly than was the land on which set-aside entitlements were calculated, the chief differences being that temporary grass would not be subject to the requirement and that holdings within SDA's or certified Organic producers would be exempt. To ensure that land put into Environmental Management was sufficiently large in area to provide effective environmental benefit then a threshold was proposed that holdings with fewer than 20ha of 'cultivated land' would also be exempt from the requirement.

Environmental Management land could be located on 'cultivated land', former set-aside or fallow. It could also be located on existing protection zones, but only if these are adjacent to a larger block or strip of Environmental Management land.

After considering various ways of calculating a farmer's requirement to have land in Environmental Management, including retaining set-aside entitlements and undertaking a one-off calculation relating to a base year, it was concluded that an annual calculation would be fairer and more flexible. This annual calculation could either be done on the SPS claim form or using a separate booklet. The advantages and disadvantages of these two options are set out below.

English farmers could choose how to meet their cross-compliance obligation to have land in Environmental Management from a range of management options. Eleven options, each designed to replicate some of the environmental benefits of set-aside, were initially selected for evaluation. These management options have been kept relatively simple. Farmers would be encouraged to undertake more demanding Environmental Management through a series of 'top-up' options offered on Environmental Management land under Entry Level Stewardship. Farmers would be rewarded for the additional costs of undertaking this level of Environmental Management. [Table 1](#) summarises the management options that were evaluated and the top-up options available with each.

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**Table 1: Summary 'short list' of potential XC1 cross-compliance management options and ELS top-ups selected for further analysis**

Cross-compliance – option	ELS Top-up options
EM1 Grass buffers alongside temporary and permanent watercourses	EX1 Wildflower seed mix EX2 Regular cutting & removal of vegetation
EM2 Reverted arable plots or strips	EX1 Wildflower seed mix EX2 Regular cutting & removal of vegetation EX3 Limited grazing
EM3 Previously cultivated land rotationally taken out of production	EX4 Wild bird seed mixture EX5 Nectar mix EX6 Un-cropped cultivated margins EX7 Un-harvested cereal headlands EX8 Rotational fallow
EM4 Wildbird winter food area	-
EM5 Minimum alternate row width winter or spring cereal	EX11 Farmland bird plots
EM6 Farmland bird plots in winter cereals	-
EM7 Reduced nitrogen cereal crop	EX11 Farmland bird plots
EM8 Reduced seed rate cereal crop	EX11 Farmland bird plots
EM9 Winter stubble (to end Feb)	EX9 Enhanced winter stubble

EM10 Winter stubble followed by specified crops	EX12	Low input regime for spring crop
	EX9	Enhanced winter stubble
	EX12	Low input regime for spring crop
EM11 Low input cereal/oilseed rape followed by winter stubble	EX9	Enhanced winter stubble
	EX11	Farmland bird plots
	EX12	Low input regime for spring crop

N.B. Options in this table are divided into two groups, those that require land to be out of normal arable production (green), and those that allow this to continue with modifications (orange).

#### **1.4 Feedback on XC1 proposals from farmers and stakeholders**

Key stakeholders, including the main farming organisations, RSPB, FWAG and the Game and Wildlife Conservation Trust were given a presentation on the developing proposals and invited to submit their views using a structured questionnaire. The proposals were also explained to a small sample of 19 farmers across three regions and they were invited to record their likely reactions to the scheme on their farms. The key messages to emerge can be summarised as follows:

- The farmers and farming organisations consulted all made clear that they thought XC1 was wrong in principle. Farming organisations felt the evidence for the environmental impact of ending set-aside was not yet sufficient and they and the farmers felt that incentive payments, delivered through ELS, would be a more constructive approach to mitigating whatever impacts were identified.
- Farming organisations such as National Farmers Union (NFU), Tenant Farmers Association (TFA), Co-op farms and Country Land & Business Association (CLA) generally argued in favour of the widest possible range of Environmental Management options. The small sample of farmers questioned generally indicated that they would prefer to keep their production and their Environmental Management separate. Most indicated that they would choose the options requiring land to be out of production and those which required winter stubbles.
- Most environmental bodies felt that the Environmental Management options requiring land to be out of production, either rotationally or long term, were the most likely to compensate for the loss of set-aside from a smaller area of land.
- There were mixed views on the extent to which farmers would take up the ELS top-up management options.
- There was concern across farming and advisory organisations, reflected in the results of the interviews with farmers, that uptake of and support for ELS would be damaged by the introduction of XC1. It is difficult to assess the likely extent of this without undertaking more detailed research.
- Most organisations and individuals favoured recording Environmental Management land in a separate booklet rather than on the SPS claim form to avoid the obvious risks and impact of disruption to payments.
- There was widespread concern at the amount of administration that XC1 might mean for farmers. The need for sketch maps to record the location of Environmental Management Land was queried.

#### **1.5 Evaluation of the Environmental Management options**

These options have been evaluated according to the following criteria:

- Likely environmental outcome, across the range of benefits that set-aside provided, with and without top-up ELS options (undertaken by Natural England specialists and subject to independent review by the Central Science Laboratory).
- Monitoring risk (evaluated by RPA).
- Responses from the industry, environmental and advisory bodies and a small selection of farmers who are already in ELS (from stakeholder workshops and farmer interviews)..
- Compliance costs (estimated by Defra Economists).

The evaluations suggested that the options can be divided into three groups:

1. A group of options (EM 1 to 4) that all require land to be out of normal cropping, which have, with their ES top-ups, the potential to provide a range of environmental benefits equivalent to those provided by set-aside but from a smaller area of land.
2. A group of options (EM 6, 9, 10, 11) that allow a degree of continued production and which also have the potential to provide many of the benefits, particularly the biodiversity benefits, formerly produced by set-aside. Most of these options are likely to need an area equivalent to the area of former set-aside to deliver an equivalent level of benefit, even if the top-up ELS options are widely taken up.
3. A group of options (EM 5, 7, 8) that either seem unlikely to deliver significant environmental benefits or are prone to being extremely difficult to inspect.

## **1.6 Alternative approaches to applying Environmental Management options**

On the basis of the option evaluation, EM 5, 7 and 8 have not been considered further. There seems to be a clear choice between two alternative approaches, based on the two groups of viable options identified above:

**Alternative 1:** Environmental Management on land out of production

Under this alternative, farmers would be offered a choice of options EM 1 - 4 as ways of fulfilling their requirement to have land in Environmental Management. This alternative consists of the options that are most likely to deliver the full range of environmental benefits from the least land (providing the ELS top-ups are widely taken up) and are relatively more straightforward to monitor. The options are supported by the environmental and advisory bodies and were most favoured by the small sample of farmers consulted, especially those who still have land out of production. However, the compliance costs for these management options are also high for farmers who do not already have land out of production.

**Alternative 2:** Environmental Management on land out of production and/or on land where production practices are modified

Under this alternative farmers would be offered a choice of options EM 1 - 4, 6 and 9 - 11 as ways of fulfilling their requirement to have land in Environmental Management. This option provides a wider range of options including some that allow for continued production and therefore have lower compliance costs. However, this alternative introduces options that pose a higher and more costly risk for RPA to inspect and present obstacles to overcome regarding inspection timing and the ability to enforce reductions to claims. It is also likely that this alternative would need a rather higher percentage of land in Environmental Management to produce the same level of environmental benefit as Alternative 1. Delivery of these benefits is however slightly less dependent on the voluntary uptake of ELS top-ups than it is in Alternative 1.

## **1.7 Nature and scale of XC1 benefits**

The purpose of this section is to provide a brief overview of the extent to which each alternative implementation option might safeguard the environmental benefits known to have accrued from set-aside. The reports prepared for the High Level Set-aside Group and appended to Sir Don's report to the Secretary of State in July 2008 showed that set-aside had produced three major environmental benefits:

- Nesting sites, winter and summer feeding for a range of farmland bird species.
- Habitat for a range of common plant species and for the invertebrates that feed upon these plants.
- Reduced loss of sediment and phosphate from cultivated land in some catchments where soils vulnerable to erosion occur on slopes.

In addition a review by Institute of European Environmental Policy (IEEP) showed a range of other benefits including benefits for species such as vole and brown hare.

#### **Alternative 1: Management options 1-4 (without production)**

Alternative 1, if combined with a matching uptake of ELS top-up options, has the potential to capture the majority of benefits of set-aside from a reduced area of liable land. EM 1 and EM 2 (both options that would allow a grass sward to develop on land out of production) should provide similar levels of benefit per hectare for farmland birds and plants as non-rotational set-aside. Benefits for resource protection will be greater if farmers use the improved links to the cross-compliance Soil Protection Review to identify soil erosion risks and target options accordingly. The ELS top up options would improve the quality of biodiversity habitats and resource protection and providing advice or an enhanced Farm Environment Record (FER) could optimise their effectiveness.

EM 3 (Land rotationally out of production for 1 year) provides the same year long benefit to a range of plants, animals and birds at a considerable scale across the farmed landscape as rotational set aside. However, EM3 should deliver additional benefit per hectare as it specifies a later removal of cover which extends foraging and nesting opportunities. The ELS top-ups options available with EM3 should considerably increase the total benefits from this annual un-cropped area for key farmland bird species, habitats proven in ES to deliver for bumblebees and butterflies, and rare arable plants.

EM 4 (Wildbird winter food area) will provide valuable farmland bird and invertebrate habitats on a widespread scale similar to set aside. However, since EM 4 excludes maize, the overall feeding value of these areas for farmland birds will be improved.

#### **Alternative 2: Management options 1-4, 6, 9-11 (with production)**

Alternative 2 also includes options EM 1 to 4 and so should produce a similar range of benefits to Alternative 1. The production options (EM 6 and 9 to 11) do not attempt to directly match the conditions produced by set-aside, but provide instead some specific benefits for farmland birds and for some BAP mammals. Land taken up under these options would produce fewer environmental benefits per hectare than EM 1 to 4 and would have few benefits for resource protection, although the top-up options would help significantly.

Alternative 2 is less predictable in terms of the benefits it delivers. This is particularly true if the 'productive' options (EM6 and 9 to 11) prove popular at the expense of EM 1 to 4, as the overall benefits from Alternative 2, compared with Alternative 1, could be somewhat lower for a given percentage of land.

### ***1.8 Setting a percentage rate for the Environmental Management cross-compliance requirement***

A whole series of factors need to be taken into account, and no robust scientific formula is available.

The percentage rate likely to be needed will differ between the alternatives set out above. The factors weighed up in arriving at an estimate of percentage area for Alternative 1 are as follows:

- The assessments of the potential benefits from the management options and ELS top-ups requiring land to be out of production.
- The likely extent of substitution by ELS agreement holders.
- The need to benefit farmland birds, other taxa and resource protection, which cannot always all be achieved on the same land.
- The distribution of management options is unlikely to be entirely optimal.
- The slightly lower area per percentage from cultivated land than from set-aside entitlements.

Weighing all these factors into consideration, Defra and Natural England proposed that a requirement of between 4 and 5% (162 – 203 thousand hectares) seems to be a reasonable minimum for Alternative 1, providing it is accompanied by high levels of uptake of the ES top-up options.

For Alternative 2, two additional factors need to be considered:

- The lower density of environmental benefits provided by the “productive” options compared with those requiring land to be out of production.
- The additional uncertainty factor presented by a greater range of options.

The results from the small sample of farmers who were interviewed suggest that the first choice for most farmers who still have land out of production will be to count this towards their environmental management obligation. It therefore seems likely that even under this alternative, it should be possible to achieve quite good uptake of options EM 1 – 4, the options that are most likely to deliver the full range of environmental benefits from the least land (providing the ELS top-ups are widely taken up). However not all farmers have land out of production in sufficient quantity, so it seems likely that there would be some uptake of the ‘productive’ options, EM 6 and 9 – 11. These additional factors mean that Alternative 2 is likely to need a higher rate than Alternative 1, but that the differential between the two alternatives may not have to be as large as might at first sight appear likely. A rate of between 5 and 6% (203 – 243 thousand hectares) is suggested as a reasonable minimum. However, at this level of requirement, there is a risk that XC1 will not fully mitigate for the environmental impacts of ending set-aside, particularly if it is not possible to secure high levels of uptake of the ES top-up options. For this alternative there is also a risk that the environmental benefits will be reduced if it does not prove possible to ensure a reasonable spread of take-up between the Environmental Management options.

### **1.9 Recording and compliance procedures and checks**

As the intention was for XC1 to be dealt with under cross-compliance regulation, RPA would be required by Defra to provide a new process to record an arable farmer’s total cultivated area, the area (in hectares) of cultivated land put into Environmental Management and the type of Environmental Management condition in place on the land. It was envisaged that XC1 could impact 40-45,000 arable farmers in England before the application of any threshold or exclusions.

There are two viable options for recording these data:

**Option 1 – SPS claim form:** Farmer supplies XC1 information (EM Land data and sketch maps) with the SPS Claim form to the RPA for validation through the claim-to-pay process and then subsequent cross-compliance checked through an inspection if selected.

Option 1 is likely to result in a higher risk of incorrect entries being made on the claim form. EU rules require these to be validated and where incorrect, a penalty be applied (likely to be a minimum of 3% of their SPS payment). The EU would require a higher number of inspections in line with the number of penalties to be applied. Subsequent breaches would then be found during the inspections which again would lead to increased penalties and potentially more inspections.

This option presents a higher risk to the claim to pay process as SPS processing is dependent upon completion of inspections. This would be further exacerbated, as each year we can expect a farmer to change the land they put aside and therefore the entries they make on their SPS claim. Failure to apply the rules correctly would attract a high risk of disallowance to RPA.

**Option 2 – Separate booklet** Farmer records the XC1 information (EM Land data and sketch maps) in an RPA provided booklet which is kept and maintained on farm (for a minimum of 5 years) and is provided by the farmer during an inspection if selected.

Option 2, whilst providing a small overhead on the farmer of duplicating some data already entered on the SPS form, separates the recording of EM land from the SPS claim process, and so reduces the risk of delay and disruption to the payment of SPS claims.

Both options would require farmers to record where their Environmental Management land was located through the provision of sketch maps, which will represent a considerable administrative burden to the farmer. Sketch maps are considered a key control in cross-compliance to provide an audit trail of EM land to avoid unnecessary application of penalties through misunderstandings and to reduce the time the inspector needs to spend with the farmer. Sketch maps will be required where a farmer devotes “part” of a field for EM purposes and to show where in the field the EM option is implemented. Where a farmer devotes a whole field to EM then a sketch map will not be required. This would operate in a similar manner to the old set-aside regime (but would present a slight additional administrative burden

due to the different EM options and the level of detailed mapping required for inspection purposes). If sketch maps were not requested then this would present an increased risk of disallowance to RPA through weaknesses in a key control. It is the intention of the current RPA RLR Programme to issue new maps to farmers during 2009 which will go some way to mitigate the burden on farmers when it comes to producing sketch maps.

To ensure compliance under both options RPA would have to implement revised and extended inspection processes to check the arable farmers compliance in terms of area put to the obligation and the way it is managed. These additional processes will present a significant increase in burden on the inspectorate and farming community, by having to carry out additional inspection visits and spend more time on farm. RPA currently estimate a potential increase of up to 100-160% of inspection effort on both parties.

For Alternative 1, these inspections would generally be carried out at the same time as Land Eligibility inspections. The main reason for this is that the checks are Land Area based and so require a valid SPS claim to have been made.

For Alternative 2, as well as the Land eligibility checks above, additional inspection visits would be required to check compliance of Environmental Management conditions (this is particularly relevant to EM option 9-11 which require checking winter stubble at the beginning of the year).

### **1.10 Factors affecting the environmental outcome of the XC1 policy**

Natural England have identified four factors that are common to both alternatives:

**1. Level of take up of top-up options** – The environmental benefits depend on a wide take up of top-up options. A positive promotion campaign with strong support from stakeholders, combined with advice for farmers locally, will help secure this. If XC1 is implemented it will be financially beneficial for individual farmers to enter ELS and secure some return. As the majority of farmers have entered ELS with set-aside an obligation to put a smaller area into environmental management should not change the attraction of the scheme. The risk that the top-up options will not be widely adopted seems quite high. It could be partially, but not completely, mitigated by concerted publicity and advice. The risk is probably somewhat higher for Alternative 1, since the environmental performance of options EM 1 to 4 are more dependent on top-up management options.

**2. Extent to which existing ELS agreement holders substitute top-up or other ELS options for their current in-field options**- Existing ELS agreement holders with stand alone in-field management options may choose to leave their agreements unchanged and use additional land to meet their Environmental Management obligation. Or, they may choose to amend their agreements and replace their stand alone ELS management options with the new 'top-up' options, so their existing in-field areas could count towards their XC1 obligations. If they choose the second course of action, they will need to add in more options elsewhere on the holding to maintain their points threshold. It will be possible to encourage a choice of options that contribute to the natural environment of the local area, but the overall habitat area provided by cross-compliance and ELS in-field options will be reduced. We have factored this into the consideration of the percentage requirement.

**3. Extent to which farmers will withdraw from ELS, and/or show less commitment to the scheme, thus counterbalancing the gains from XC1** –The risk of large scale withdrawal/disengagement from ELS is very difficult to quantify, but could significantly reduce the net benefits of option XC1. It could be at least partially mitigated if the changes being developed for ES in 2010 increase the overall attractiveness of ELS to arable farmers. Timely provision of advice and support may also help. We believe ELS is a financially sensible option for farmers with XC1 obligations and, once the current period of uncertainty is behind us, it should be possible to get this message across and encourage farmers to join ELS through positive promotion and advice at the local level

**4. Uneven uptake of cross-compliance options** – Both Alternatives are designed to reduce this risk by including a range of options designed to appeal to different sets of farmers. Advice and support would also help farmers make appropriate choices. The residual risk is probably greater for Alternative 2, which is one reason why a slightly higher percentage rate is suggested for this Alternative.

### **1.11 Implications for Natural England**

Three major implications have been identified:

- The workloads that could arise to service a potentially large number of ES amendments, with the necessary increase in management capacity, training and accommodation costs.
- The stakeholder and customer disengagement that could accrue from the need for a large number of amendments to existing agreements to accommodate XC1.
- The impact on Natural England's 70% target for agri-environment coverage of a drop in support for ELS

Up to 18,500 agreements may need to be amended, with many of the requests coming at the same time as one of the peaks of ELS renewals and the launch of the ES2010 changes. This would impact on Natural England's advisory programmes as well as on the processing of amendments.

The scale of any likely drop in support for ELS will depend on the percentage rate set for Environmental Management land and on the cumulative effect of the ES2010 changes. It is unlikely this risk could be fully mitigated, but it could be reduced through the provision of good advice and support.

### **1.12 Impacts to RPA**

In the event that Defra decides that XC1 will be implemented through cross-compliance, there are four major implications to RPA

- Given this will be a new requirement on farmers there is a chance of increased mistakes being made by farmers. This will in turn result in more cross-compliance breaches being found, which may in turn trigger a need for an escalation in the number of inspections (3, 6 or 10 times) in the following year under current EU rules, which could impact on the ability to make the correct SPS payments to farmers in a timely fashion.
- A proportion of farmers may try to move or reclassify their land under different crop codes to minimise their exposure to XC1. This may impact on the SPS process by introducing more queries and scanning errors resulting in the risk of potential delays to payments across the SPS community.
- All of the above, plus the significant increase in costs, the additional effort involved in managing and inspecting XC1 (both on RPA and the farmer), especially under Alternative 2, and the recently published Health Check requirement to implement a significant number of compulsory cross-compliance changes will elevate the level of risk to RPA in meeting Ministerial targets for improving customer satisfaction levels and shortening the time taken in the claim to pay cycle.

### **1.13 Implementation costs<sup>1</sup>**

The total implementation costs will depend to some extent on the percentage set for Environmental Management land and the options that are provided.

If the Environmental Management rate were set at 5%, it is estimated that the administrative cost, for both options, on the arable farming industry of introducing XC1 would be between £6 and £8 million in the first year and would then decline to a level of approximately £4-6m annually, depending on the amount of annual variation of EM options selected by farmers after the first year. The impacts to the individual farmer could range from as little as £8 for farmers to confirm their ineligibility to £176 for farmers with a more complex make up of land.

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<sup>1</sup> On the grounds of commercial confidentiality, RPA and Natural England costs are not being released, although there are significant cost increases for RPA and Natural England and these have been made available to the Secretary of State.