Natural England Commissioned Report NECR117

# Evaluating the impacts of limiting free choice in management option selection by Entry Level Stewardship (ELS) applicants

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# Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

## Background

Under Entry Level Stewardship (ELS) applicants are required to achieve a specific number of points based on their eligible land. Each option provides points based on income foregone. As long as applicants achieve the minimum number of points they can select whatever management options they want to make up their ELS agreement.

In 2011- 2012 the Defra/Natural England project *Making Environmental Stewardship More Effective (MESME)* identified some options as providing high environmental value. The work being reported in this document was commissioned to test the possibility of restricting applicants' option choice by requiring a certain proportion of their ELS points to be allocated to options identified as providing high environmental value.

The specific aims of the project, were to:

- evaluate the potential impacts on the delivery of environmental benefits, ELS scheme uptake and applicant satisfaction; and
- determine the optimal mechanism for directing option choice and the optimal parameters of that mechanism.

Natural England and others will use the findings to inform the development of future agri-environment schemes.

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**Further information**
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# Evaluating the impacts of limiting free choice in management option selection by Entry Level Stewardship (ELS) applicants

## ELS Directed Option Choice Trial

## Final report

**Contract Ref: 24144**





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# Executive Summary

## Introduction

- Environmental Stewardship (ES) is the current agri-environment scheme in England, with Entry Level and Higher Level strands. In the Entry Level strands, applicants select management options, each of which has a points value, in order to achieve a 'points target' which is based on the area of their farm holding. At present, applicants have a free choice of options from which to make up their agreement. This project aims to test the possibility of restricting option choice by requiring a certain proportion of ELS points to be allocated to options identified as providing High Environmental Value, as recommended by the 'Making Environmental Stewardship More Effective (MESME)' exercise conducted by Defra and Natural England.
- The aims of the project, which was carried out in the second half of 2012, were to:
    - evaluate the potential impacts on the delivery of environmental benefits, ELS scheme uptake and applicant satisfaction; and
    - determine the optimal mechanism for directing option choice and the optimal parameters of that mechanism.
- For this purpose, two scenarios with restricted choice were compared with a free choice scenario based on options which would be available from January 2013. In the first restricted scenario, known as 'split list', options are categorised as standard or 'High Environmental Value (HEV), and applicants are asked to accumulate a minimum proportion of their points target from the high value list. In the second, known as 'option bundles', the applicant selects one thematic option bundle and is asked to accumulate a minimum proportion of their ELS points target from that bundle.

## Methods

- Details of 400 agreement holders from each of four farm types (arable, dairy, lowland beef & sheep, and upland beef & sheep) were provided by Natural England and these were contacted to ask if they would be willing to take part in the study, with the aim of carrying out 200 on-farm interviews, divided equally among the four farm types. Insufficient responses were received from arable and dairy farmers, so a second, smaller mailing was sent out to complete the sample.
- For the 'option bundles' scenario, a number of environmental themes were defined by Natural England, each of which had an associated set, or 'bundle', of appropriate options and, in most cases, priority areas, i.e. spatially defined areas where the bundles would be most appropriately targeted.
- Surveyors carrying out interviews were provided with a pack including generic information (instructions for the interview, priority area designations, lists of options for the restricted scenarios, etc.), farm specific information, (including agreement maps, Farm Environment Records (FERs) and lists of options in the current agreement (supplied by Natural England)), and a range of forms to be filled in at each interview.
- Interviews followed a standard format, with scenarios tackled in order of increasing complexity. The free option choice scenario was discussed first, followed by the split list and finally the option bundle scenario.
- One of the tasks was to estimate the proportion of points that should be devoted to high environmental value (HEV) options under a limited choice scenario. In order to do this, two approaches to the split list and bundle scenarios were followed in turn:

the first requested the interviewee to indicate what HEV options he/she could include in a new agreement and how much of each regardless of preference (approach (a)); the second asked which HEV options they would actually include (and how much of each) bearing in mind their preference, the appropriateness of the options and match to the farm system (approach (b)). After each scenario variant had been discussed, the interviewee was asked the questions about whether they would apply and how satisfied they were with the process.

- When the point was reached for discussion of the option bundle scenario, the interviewee was informed which priority area(s) the farm was in, and invited to choose options from a bundle linked to the relevant environmental theme or sub-theme, though this was not obligatory and they could choose a bundle that was not a priority for the area in which the farm was located if they wished.
- Statistical analysis was carried out on results for scheme uptake, need for advice to complete an application, satisfaction of agreement holders with the application process and the clarity of scheme requirements, and the contribution to agreement points of HEV or bundle options.
- The percentage of points targets accounted for by HEV options in the free choice and split list scenarios was compared with the percentage accounted for by options from the selected bundle options only in the bundle scenario, and also, in a separate analysis, the percentage accounted for by all HEV options in the bundle scenario. Finally, pairwise comparisons were made between scenarios allowing for uptake; when the interviewee indicated that he would not enter an agreement under a specific scenario/approach combination, the percentage contribution of HEV (or bundle) options was set to zero.

**Results**

- In total, 202 interviews were carried out. Breakdown by farm type was 48 arable, 56 lowland beef and sheep, 47 dairy and 52 upland beef and sheep.
- Nearly 99% of interviewees indicated that they would have submitted an application under the 2013 free choice scenario, but potential uptake was significantly lower for both restricted scenarios under approach (b), and lower still under approach (a). Predicted uptake under approach (b) was lower for the split list scenario than for the bundle scenario. Among the different farm types, upland farmers were most likely to apply under all scenarios.
- Seventy percent of respondents felt that they could complete an application without advice under the free choice scenario; this dropped to 63% under the split list and 56% under the option bundle scenarios. Arable and upland farmers were most positive, and dairy farmers least, with less than 50% of dairy farmers considering that they could complete an application including option bundles without advice.
- There was a high level of satisfaction with both the application process and the scheme requirements for the free choice scenario. However, levels of satisfaction were lower under the split list scenario for the application process and the scheme requirements and lower still for the option bundle scenario. The least satisfied with the application process were generally the dairy farmers. Similar levels of satisfaction with the clarity the scheme requirements were expressed by lowland and upland beef and sheep farmers; similar levels of satisfaction were also expressed by arable and dairy farmers, but these were slightly lower than for beef and sheep farmers.
- The most popular ELS options under the free choice scenario were Hedgerow management on both sides (EB1) or one side (EB2), Permanent grassland with low inputs (EK2), Enhanced hedgerow management (EB3), Maintenance of traditional

farm buildings (ED1) (Permanent grass with very low inputs (EK3). Potential uptake of non-HEV options generally decreased under restricted choice scenarios, whilst HEV options almost always increased. The amount of this increase was linearly related to the amount of option taken up under the free choice scenario, for both restricted scenarios. However, three new options (Hedgerow restoration EB14, Establishment of hedgerow trees by tagging EC23, and Maintenance of watercourse fencing EJ11) were taken up to a greater extent than expected under the split list and bundle scenarios.

- For UELS agreements, the most popular options in the free choice scenario were Cattle grazing on upland grassland and moorland, (UL18), Stone wall protection and maintenance on/above the moorland line (UB11) and Haymaking (UL20). In contrast to the results for ELS options, there was generally little change in uptake of non-HEV UELS options. Most HEV options increased under the restricted scenarios, but a few did not.
- The most widely chosen bundles were the landscape and historic, and climate change bundles. The least popular were the arable plant, shellfish/bathing water and groundwater bundles. Although most bundles chosen were relevant to the priority area(s) within which the agreement was situated, some were not, especially for the landscape and historic bundle.
- Percentages of agreement points targets accounted for by HEV options were higher under approach (a), where agreement holders were asked to maximise the points devoted to HEV options, than under approach (b), when they were allowed to select only those HEV options they were happy with. The contribution of HEV options to the points target was higher for the split list and bundle scenarios than for the free choice scenario under both approaches when all HEV options were considered, but not necessarily for the bundles when only the options from the selected bundle were considered.
- The lowest contribution of HEV points was observed for potential agreements in the free choice scenario on lowland beef and sheep farms. Arable farms had a higher contribution under free choice than the other farm types, whereas dairy and upland farms had a similar percentage accounted for by HEV points.
- For split lists, there was no significant difference between farm types under approach (a), with around two thirds of the points target devoted to HEV options. Under approach (b), the percentage was reduced to less than 50% on average, though slightly higher for upland farms.
- When only options relevant to the selected bundle were considered, a higher percentage of target points were accounted for by bundle options on dairy and lowland beef and sheep farms than on arable and upland farms under approach (a), but levels were similar for all farm types under approach (b), at around a quarter of the points target. However, when all HEV options were taken into account, proportions of target points devoted to HV options were similar for all farm types at c. 50-60% under option (a), but lower (c. 38%) for dairy and lowland beef and sheep under approach (b).
- Further analyses were carried out to estimate the proportions of points targets accounted for by HEV options when taking account of differences in scheme uptake between the scenarios. Pairwise comparisons between scenarios were made to determine which performed best under each approach.
- When all HEV options were taken into account, and not just those from the selected bundle, both restricted scenarios gave better results than the free choice scenario under approach (b), but there was no significant difference under approach (a). The outcome for the option bundle scenario was slightly better than for the split list

scenario, though when compared directly, the difference was not statistically significant.

- There were some differences in responses between farm types. Best results were obtained with the bundle scenario under approach (b) for cereals farms, whereas for lowland and upland beef and sheep farms there was little to choose between split list and bundle scenarios, though both performed better than the free choice scenario. For dairy farms, there was no significant difference between any of the scenarios under either approach.
- Calculation of percentage of the target accounted for by HEV points under the different scenario variants indicated that, when taking all HEV points into account (not just those in the chosen bundle), the bundle scenario under approach (b) gave the best outcome, with 46-47% of points devoted to HEV options.

**Discussion**

- In considering the results, it needs to be borne in mind that there were a number of differences between the scenarios used in this project and those applying in the scheme itself as currently implemented.
    - Firstly, the options identified as being of High Environmental Value (HEV) in the split lists, and options included in the bundles, were not the same as those currently in use by ETIP and other advisers, and several options that are widely taken up in agreements were not included in the lists used for this project, but were included in the lists posted on the Natural England website.
    - Secondly, in this project, interviewees were asked to choose one bundle, even if they were in more than one priority area. However, common practice among ETIP advisers is to advise that applicants can include HEV options from more than one bundle if the farm is in more than one priority area.
    - Thirdly, the interview process necessarily differed from the completion of an ELS application form. The scenarios and approaches were completed in the same order in every interview, and this could have affected the results, however for operational reasons this was felt to be the most effective way of carrying out the survey.
    - Finally, as with any survey of this type, there was an element of self selection among the participants which could have influenced the outcomes.
- The more onerous the restrictions, the less likely farmers were to want to participate in the scheme. Farmers who are most ambivalent about participating in ES are likely to be those who face the most additional cost, and hence are also most likely to be delivering additionality in the scheme. If these farmers exit the scheme, then there will be an offsetting negative environmental impact, although it is not possible to comment on the extent to which this impact may negate the positive impact from a higher amount of HEV options deployed.
- In conclusion, both restricted scenarios resulted in a higher uptake of HEV options than the free choice scenario when farmers were allowed to select HEV options that they were comfortable with, and the evidence suggested that the option bundle scenario performed slightly better than the split list scenario. However, satisfaction scores were higher for the split lists than for option bundles, and fewer respondents thought they would need advice to complete an application under the split list scenario. Taking these considerations into account, the split list scenario might be preferred. It is suggested that around 45% of the target should be required to be derived from HEV options, under the conditions stipulated for this project.

# 1 Introduction

Environmental Stewardship (ES) is the current agri-environment scheme in England, providing farmers and land managers with support to carry out environmentally beneficial management and maintain habitats and features. The scheme's primary objectives are to:

- Conserve wildlife (biodiversity)
- Maintain and enhance landscape quality and character
- Protect the historic environment
- Protect natural resources (water and soil)
- Promote public access and understanding of the countryside

There are also secondary objectives for genetic conservation and flood risk management as well as an overarching objective to contribute to climate change adaptation and mitigation.

There are four key strands within Environmental Stewardship: Entry Level Stewardship (ELS), Uplands Entry Level Stewardship (UELS), Organic Entry Level Stewardship (OELS) and Higher Level Stewardship (HLS). ELS. UELS and OELS constitute the 'entry level' strands of the scheme, open to all farmers and land managers who are able to achieve a 'points target' which is based on the area of their farm holding. To achieve the target, applicants select management options, each of which has a points value. In contrast, HLS requires a higher level of management and agreement offers are restricted to those that offer high value in terms of environmental delivery. The project described in this report relates only to the entry level elements of ES, which for convenience will be referred to in general as ELS, except where specific reference is made to UELS.

The Environmental Stewardship Review of Progress (2008) identified the need to better target entry level options to enhance the environmental outcomes, which led to the development of the ELS Training and Information Programme (ETIP), which provides advice to ELS applicants with the aims of ensuring high renewal rates into ELS and strong uptake of UELS; bringing new entrants to the scheme; and improving option choice and implementation). While such advice should improve targeting of options, the applicant may still ignore it and exercise free choice of options. An additional approach to improve targeting would be to restrict option choice by requiring a certain proportion of ELS points to be allocated to options identified as providing High Environmental Value. The testing of such an approach was one of the recommendations arising out of the 'Making Environmental Stewardship More Effective (MESME)' exercise conducted by Defra and Natural England.

The project reported here tested two scenarios involving such restriction, in comparison with the modified free choice system becoming operational in January 2013. The project aimed to aassess the potential impact(s) of limiting the extent of free choice that ELS applicants have in the selection of land management options, through interviews with current agreement holders. In particular, objectives were to:

- evaluate the potential impacts on the delivery of environmental benefits, ELS scheme uptake and applicant satisfaction; and
- determine the optimal mechanism for directing option choice and the optimal parameters of that mechanism.

The scenarios defined in the project specification were as follows:

- Split List: each ELS option is categorised as "standard" or "higher value". Applicants are then asked to accumulate a minimum proportion of their ELS points target from the high value list.
- Option Bundles: The applicant selects one thematic option bundle and is asked to accumulate a minimum proportion of their ELS points target from that bundle.

- Jan 2013 version of ELS. Applicants have a free choice from all options present in this iteration of the scheme. This acts as the comparator against which to test the Split List and Option Bundle scenarios.

The results of this project are intended to contribute to a wider analysis of Environmental Stewardship delivery and provide input to the formulation of the next Rural Development Programme for England.

# 2 Methodology

## 2.1 Sample selection

A target of two hundred interviews with agreement holders was set, to be divided equally among four farm types: arable, dairy, lowland beef & sheep, and upland beef & sheep (as set out in the project specification). A randomly selected group of 1600 ELS agreement holders (400 of each farm type) was contacted in advance to ask if they would be willing to take part. This is a larger number than would normally be contacted in order to obtain a final sample of 200, but it was decided that this was necessary in view of the limited time available in which to carry out the interviews in order to deliver the report at the time required, and the fact that the survey would be carried out at a busy time of year for farmers, particularly those with arable land who would be harvesting and drilling crops for the following year during the period of the survey.

A draft letter and questionnaire forms were submitted to the Defra Survey Control Unit for approval, and once this was approved, Natural England supplied names and addresses for agreement holders fitting the criteria specified. In addition to filtering according to farm type, the following restrictions were applied prior to carrying out the selection:

- all cases with transfer activity were excluded;
- OELS cases were excluded;
- only Live cases on 7 June 2012 were included;
- all agreements with end dates between August 2012 end of 2013 were excluded (in order to prevent duplication of visits to those due ETIP visits);
- all cases without recorded phone numbers were removed;
- all cases where farm type was unknown were removed;
- all cases with ELS agreement area < 15 Ha were removed;
- cases with addresses well outside of England were removed;
- all cases where land was easily identifiable as remote from agreement holder address were removed;
- all Isle of Wight cases were removed;
- all cases with multiple agreements were removed.

The letter sent to the 1600 agreement holders on the final list is included in Appendix 1.

Sufficient responses were received within the allotted time period for the lowland and upland beef and sheep categories, but a few more were required for the arable and dairy categories, so a further 50 farms in each of these two categories were contacted. The returns from this second send out resulted in a sufficient number of farms in each category to proceed with the interviews. A letter was sent to those who returned a positive response, thanking them for agreeing to take part and enclosing a template for the interview to make them aware of the format and what information they would be expected to provide. Details of farms to be visited were supplied to Natural England, who then supplied current agreement maps, Farm Environment Records (FERs) and lists of options in the current agreement for each farm to be visited.

Because of the length of time required to cover the necessary material, all interviews were carried out face to face at the interviewee's farm or office. Potential interviewees were contacted by telephone to confirm their availability and arrange a mutually convenient time for the visit. Where an interview was not possible (e.g. due to illness or other commitments), a reserve was selected.

## 2.2 Defining restricted option scenarios and priority areas

The split lists and option bundles were defined by Natural England (NE) for the project. There were some differences between the bundles used for the project and those appearing on the Natural England website at the time of the project, so the results need to be considered in relation to the specific lists used for the project (see Appendix 2). It should be noted that priority area maps for water relate to a different set of sub-themes than those applicable within farms (ground water, surface water, and shellfish/bathing water). A table showing the applicability of priority options within these two classifications is included in Appendix 2.

Priority areas for farmland birds, lowland wildlife, and water were the same as those on the Natural England website[1]. However, priority areas for upland wildlife, landscape and the historic environment and climate change had not been defined. For the purposes of the current project, the priority areas for upland wildlife were defined as being within the boundaries of the Severely Disadvantaged Areas (SDAs), those for landscape and the historic environment were defined as National Parks, Areas of Outstanding Natural Beauty and Nature Improvement Areas, whilst priorities for climate change were identified as 'intensively managed' farms, defined in his case as arable and dairy farms.

In order to determine which area a farm lay within, spatial layers for use in Geographical Information Systems (GIS) were provided by Natural England for farmland birds, farmland wildlife and water priority areas. Similar layers were available for SDAs, National Parks, Areas of Outstanding Natural Beauty and Nature Improvement Areas. Farm locations were identified from SPS data available via the Defra CLAD database, and matched against the priority area layers to determine which priority area(s) each farm lay within. Where a farm did not lie within a high priority area but lay in a medium priority area, this was used instead. This was only applicable to lowland beef and sheep farms, as upland, arable and dairy farms fell by definition into a high priority area for upland or climate change. No visited farms lay outside all priority areas. Surveyors were notified of the priority area(s) in which the farms that they visited lay prior to the visit.

## 2.3 Resources provided to surveyors

Each surveyor was provided with a 'surveyors pack', consisting of generic information, agreement specific information and documents to be completed during the interview. The contents of the pack included the following:

*Generic information:*

- Interview template (see Appendix 3)
- Spreadsheet giving priority area designation(s) for the agreements
- Option split lists and bundles (as in Appendix 2)
- Water and soil options to correspond with priority area maps (as in Appendix 2)
- NE Information note on new options and option changes from Jan 2013
- Descriptions of new options (for reference).

*Farm specific information:*

- Cover sheet with farm details
- Lists of options for current agreement:

[1] http://www.naturalengland.org.uk/ourwork/farming/funding/es/agents/elsoptions/default.aspx

- Part 1
- Part 2A
- Part 2B
- FER
- Agreement map

*Forms to be filled in (see Appendix 4):*

- Interview preparation sheet
- Main Questionnaire
- One copy of Annexes for Jan 2013
- Two copies of Annexes for split lists
- Two copies of Annexes for bundles
- Free text questions

The interview template took the surveyor through the interview, with instructions at intervals on which documents were required and what forms to fill in at particular points. Further instructions were provided in the main questionnaire, which included some general questions about the farm, calculation of points target, and questions about whether the interviewee would still apply for an agreement under each scenario, and how satisfied they were with the process on a 1-5 scale.

Separate worksheets, based on ELS application forms, were used to record the options that would be included and the amount of points for each one under the agreement scenarios.

### 2.4 Interview process

Surveyors were based in different parts of England, and farm visits were allocated to surveyors according to the proximity to their home base, in order to minimise travel costs and energy usage. Visits were arranged whenever possible so that two visits could be carried out on the same day within a short distance of each other.

The interview followed a pre-set order, with scenarios tackled in order of increasing complexity. The free option choice scenario was discussed first, followed by the split list and finally the option bundle scenario. Guidance was provided as to which options would be appropriate for the farm, but it was made clear that the interviewee did not have to follow this guidance if he/she didn't wish to.

One of the tasks set in the project specification was to estimate the proportion of points that should be devoted to high environmental value (HEV) (priority) options under a limited choice scenario. In order to do this, two approaches to the split list and bundle scenarios were followed in turn: the first (approach (a)) requested the interviewee to indicate what HEV options he/she could include in a new agreement and how much of each regardless of preference; the second (approach (b)) asked which HEV options they would actually include (and how much of each) bearing in mind their preference, the appropriateness of the options and match to the farm system. After each scenario variant had been discussed, the interviewee was asked the questions about whether they would apply, whether they felt that they would be able to complete an application without advice, and how satisfied they were with the application process and clarity of the scheme requirements.

When the point was reached for discussion of the option bundle scenario, the interviewee was informed which priority area(s) the farm was in, and invited to choose options from the bundle linked to the relevant environmental theme or sub-theme (or to choose a bundle from

among those available if the farm was in more than one priority area). However, the interviewee was not constrained to do this if he/she did not want to; in this instance they could choose a different bundle not related to the priority area. For example, a farmer might wish to select options to benefit birds even though the farm was not in a high priority area for farmland birds, because that was his/her particular interest.

Where HEV options were available to the interviewee but they did not want to adopt them, they were asked why and the reasons recorded as free text on a separate form.

Where the farmland bird bundle was chosen, agreement holders were asked to include options from each of three categories 'in-field nesting habitat', 'winter/early spring seed food' and 'insect-rich foraging habitats', with minimum amounts per 100ha as follows:

*In-field nesting habitat:* 20 skylark plots in winter cereals (EF8), a 1 ha fallow plot (EF13) or 1 ha of extended overwintered stubbles (EF22)

*Seed food during the winter and early spring:* 2 ha of wild bird seed mixture (EF2) or 5 ha of weedy overwintered stubbles (EF22 / EG4) or a combination of the two.

*Insect-rich foraging habitats:* 1 ha made up of one or more of the following options: unharvested or unfertilised conservation headlands (EF9, EF10), reduced-herbicide cereal crop (EF15) undersown spring cereals (EG1), cultivated margins (EF11), nectar flower mixtures (EF4).

## 2.5 Data processing

A bespoke database was constructed to hold the data from the interviews. The database held on a central server database with data input effected through an MS Access front end. On completion of the interviews, surveyors completed the forms from their notes and submitted them to Fera headquarters, where they were entered promptly onto the database.

Once all the data had been input, checking and data cleaning was carried out. Then queries were written to output data in the format required for statistical analysis.

## 2.6 Analysis of results

The main outcomes of the three scenarios were measured in terms of three quantities: scheme uptake, satisfaction of agreement holders, and the contribution to agreement points of HEV or bundle options.

Impacts of the three scenarios on scheme uptake, need for advice to complete an application, were subjected to regression analysis with a Bernoulli distribution and a Logit link function. Applicant satisfaction scores for the application process and clarity of the scheme requirements were subjected to regression analysis with a multinomial distribution and a Logit link function.

Statistical analysis was carried out on the proportion of points in each agreement devoted to HEV options, as defined by Natural England. It should be noted that the classification used for the project differed from that used by advisors and provided in advisory material for actual ES agreements, and results are not therefore comparable with data derived from real ES agreements. For the bundle scenario, the proportion of points devoted to options addressing a chosen high priority environmental theme linked to the location of the farm was also analysed.

The proportion of target points at the agreement level related to high priority environmental themes for the location of the farm was analysed using a General Linear Mixed Model (GLMM), with logit link and farm identifier as a random term, to account for the link between the data for the three scenarios (free choice, bundle and split list) collected on each farm.

The method of Schall was used, however comparison with the alternative method of Breslow & Clayton indicated that similar results would have been obtained. Analyses were carried out comparing the effect of scenario and farm type on the proportion of points accounted for by HEV options or option bundles, for the maximum proportion of points in each agreement that could be devoted to HEV options ('approach (a)'), and assuming that only options that the agreement holder is happy with are adopted ('approach (b)').

In a number of cases, the proportion of points accounted for by HEV options exceeded 100%, especially under approach (a), where the agreement holder had more potential land or features available that could be put into HEV options than was required to reach the points target. Where this occurred, the value was corrected to 100% for the purposes of the analysis. The reasoning behind this decision was that there was no guarantee that an agreement holder would manage land or features under prescriptions in excess of his/her points target. However, it is worth noting that on average, ES participants overshoot their target to ensure it is met, so in some cases that the uptake of HEV options could be greater than 100% of the agreement

The above analysis assumes that interviewees would still be prepared to enter the scheme even if they were obliged to undertake options they did not want to do. In reality, some would withdraw and not take part, leading to a fall in scheme uptake. The overall environmental outcome will therefore be the product of option uptake at the agreement level and changes in scheme uptake under the different scenarios. In order to analyse this, each agreement was reassessed for both levels of HEV option uptake (approaches 'a' and 'b'). Where the interviewee indicated that they would not apply for ELS under the scenario in question, the proportion of points devoted to options for high priority themes was reset at zero. This generates, for each scenario and approach, a frequency distribution of 'scores' measured as proportions of points devoted to HEV options. For each pair of scenarios, a frequency distribution of differences in scores at the agreement level was generated by a process of re-sampling with replacement, and tested for significance of the difference from zero. These last analyses were carried out for the whole sample, scaled according to the occurrence of farm types in the population of agreement holders as a whole, using data provided by Natural England, produced by combining Environmental Stewardship uptake data for March 2012 with farm types from the 2010 June Agricultural Survey[2]. The percentage occurrence of farm types in Environmental Stewardship was as follows: cereals 31.5%, dairy 16%, lowland beef and sheep 33%, upland 19%.

[2] NB The June Agricultural Survey excludes very small holdings, so the results may be skewed towards larger holdings to some extent.

# 3 Results

In total, 202 farms visits were carried out. Because of the number of surveyors involved, loss of potential visits for various reasons, and the limited number of replacements available, it was difficult to hit the target numbers exactly. Farm types, according to the data supplied, were 49 cereals, 54 lowland beef and sheep, 48 dairy and 51 upland beef and sheep farms. However, one of the 'cereals' farms was found when visited to be a small grassland farm with only sheep and horses, and another had formerly been dairy but had changed to beef and sheep. Final numbers were therefore 48 cereals, 56 lowland beef and sheep, 47 dairy and 52 upland beef and sheep farms.

## 3.1 Scheme uptake under each scenario

Nearly 99% of interviewees indicated that they would have submitted an application under the 2013 free choice scenario. However, analysis indicated significant differences between scenarios/approaches in projected uptake (chi$^2$ probability <0.001). Uptake under the restricted scenarios was significantly lower than under free choice. There were also significant differences at P<0.05 between approaches (a) and (b) for both split lists and option bundles, and between split lists and bundles for approach (b) (though not for approach (a)) (Figure 1).

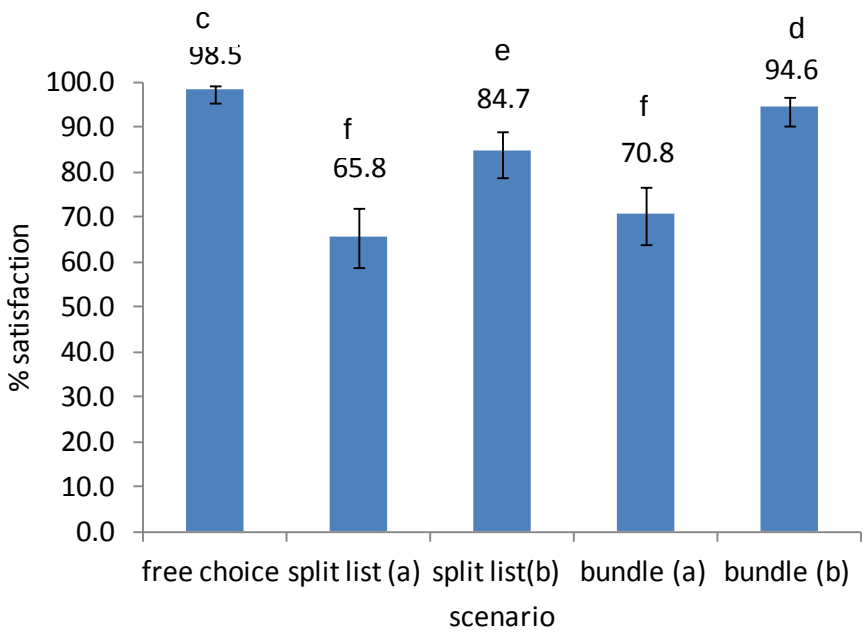



**Figure 1 Percentage of respondents who would submit an application under the free choice scenario, and approaches (a)[3] and (b)[4] to the split list and option bundle scenarios. Error bars are confidence intervals. Columns with different letters above are significantly different at P<0.05.**

[3] including HEV/priority options regardless of preference.
[4] taking into account individual preference, the appropriateness of the options and match to the farm system.

Under the most restrictive approach (a), where respondents were asked to include as large an amount as possible of HEV options, regardless of their own preferences, only between 66 and 70% of those interviewed thought they would still submit an application. However, when allowed to take into consideration their own individual preference, the appropriateness of the options and match to the farm system, the percentage who were prepared to apply rose to nearly 85% under the split list scenario, and 95% under the option bundle scenario (Figure 1).

Consideration of different farm types reveals that upland farmers were most likely to apply to the scheme under all scenarios (Table 1). Dairy farmers were particularly unlikely to apply under the split list scenario approach (a), with only around 55% prepared to submit an application in this situation. Otherwise, application levels for cereals, dairy and lowland beef/sheep were around two-thirds of respondents for approach (a) under both restricted scenarios, just over 80% for the split list scenario, approach (b), and 90% or more for the bundle scenario, approach (b) (Table 1).

**Table 1 Percentage of respondents from different farm types who would submit an application under the free choice scenario, and approaches (a)[1] and (b)[2] to the split list and option bundle scenarios.**

| Farm type | Scenario | | | | |
|---|---|---|---|---|---|
| | free choice | split list (a) | split list (b) | option bundle (a) | option bundle (b) |
| Cereals | 97.9 | 66.7 | 83.3 | 64.6 | 93.8 |
| Dairy | 97.9 | 55.3 | 80.9 | 66.0 | 95.7 |
| Lowland beef & sheep | 98.2 | 62.5 | 80.4 | 71.4 | 89.3 |
| Upland | 100.0 | 78.4 | 94.1 | 80.4 | 100.0 |

[1] including HEV/priority options regardless of preference.
[2] taking into account individual preference, the appropriateness of the options and match to the farm system

### 3.2 Need for advice

There was a statistically significant effect of scenario on the need for advice in order to complete applications (chi$^2$ probability P=0.008). Seventy one percent of respondents felt that they could complete an application without advice under the free choice scenario; this dropped to 63% under the split list and 56% under the option bundle scenarios (Figure 2). There was a significant difference at P<0.05 between the free choice scenario and the option bundle scenario, but the split list scenario was not significantly different from either of the other two.

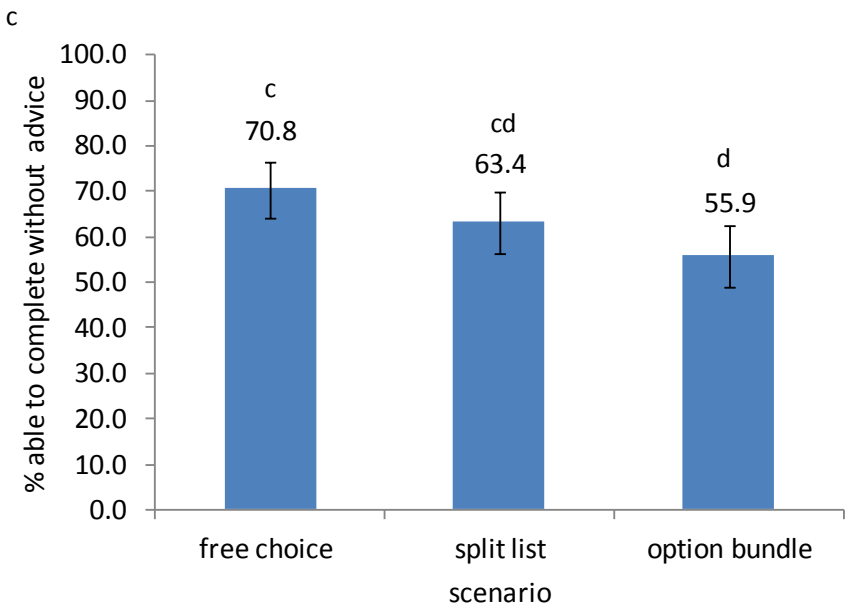



**Figure 2 Percentage of respondents who felt that they could complete an application without advice for each scenario. Error bars are confidence intervals. Columns with different letters above are significantly different at P<0.05.**

Considering the different farm types, cereals and upland farmers were most positive, and dairy farmers least, with less than 50% of dairy farmers considering that they could complete an application including option bundles without advice (Table 2).

**Table 2 Percentage of respondents from different farm types who felt that they could complete an application without advice for each scenario**

| Farm type | Scenario | | |
|---|---|---|---|
| | free choice | split list | option bundle |
| Cereals | 75.0 | 68.8 | 62.5 |
| Dairy | 61.7 | 59.6 | 47.9 |
| Lowland beef & sheep | 69.6 | 62.5 | 55.4 |
| Upland | 76.5 | 62.7 | 56.9 |

### 3.3 Satisfaction scores

Overall, there was a high level of satisfaction with both the application process and the scheme requirements for the free choice scenario, 91.6% and 93.1% respectively being either satisfied or very satisfied (Figure 3). However, there were significant differences between the free choice and the restricted scenarios (F probability P=0.004 for application process and <0.001 for the clarity of the requirements). Levels of satisfaction were lower under the split list scenario for the application process (76.2% satisfied or very satisfied) and the scheme requirements (78.2%), and lower still for the option bundle scenario (56.9% and 59.4% respectively), though differences between split list and bundle scenarios were not

significant for either process or clarity. The percentage of respondents that were dissatisfied or very dissatisfied with the application process rose from 4.0% for the free choice to 5.4% under the split list scenario, but was 21.3% for the option bundle scenario. This was mirrored for the clarity of scheme requirements, the equivalent percentages being 1.5%, 6.4% and 17.3% (Figure 3).

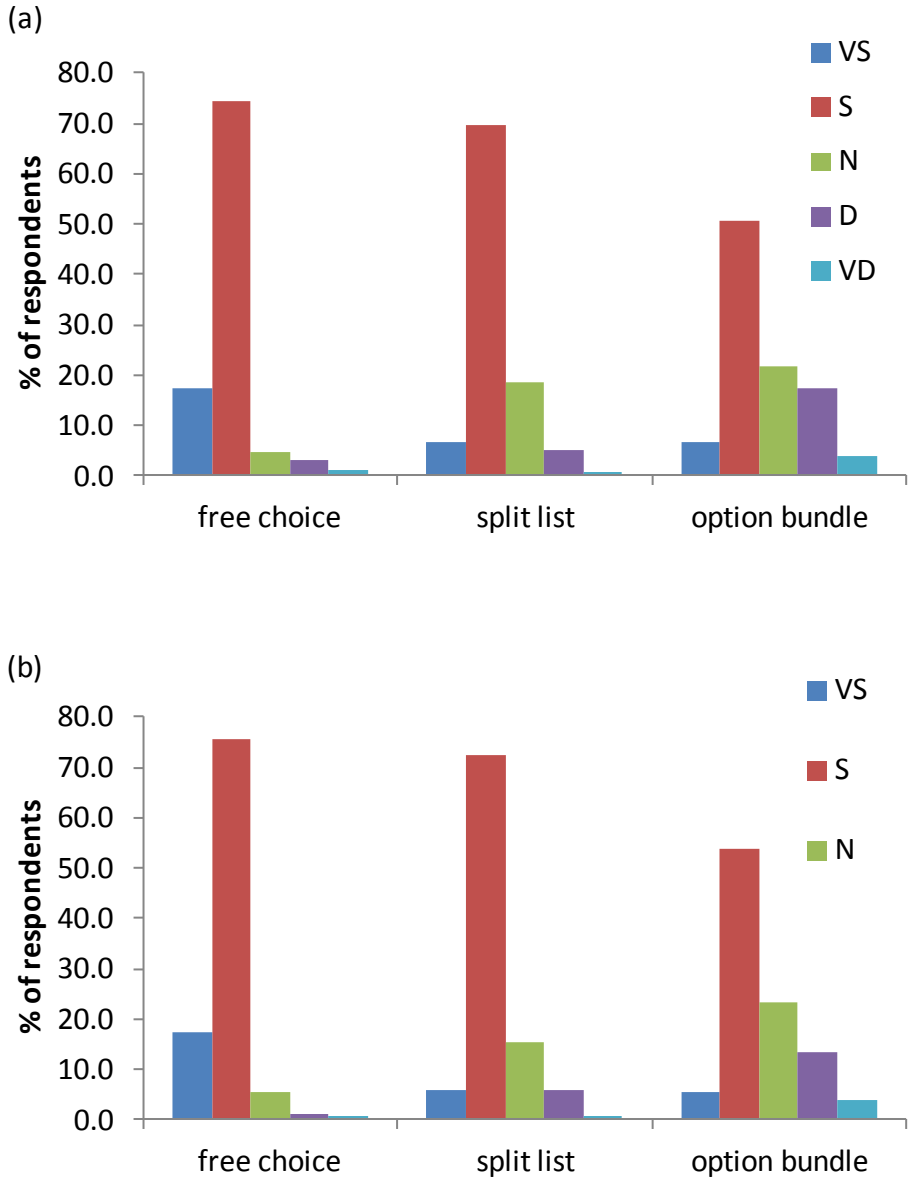



**Figure 3 Overall satisfaction scores for (a) application process; (b) clarity of scheme requirements (whole sample).**

Satisfaction scores for the application process are shown for the different farm types in Figure 4. The highest level of satisfaction for all scenarios was exhibited by the upland farmers: 96%, 80% and 69% were either satisfied or very satisfied with the process for the free choice, split lists or bundles process respectively. Only 2% were dissatisfied or very dissatisfied with the process for free choice and split list scenarios, but 16% were dissatisfied with the process for option bundles.

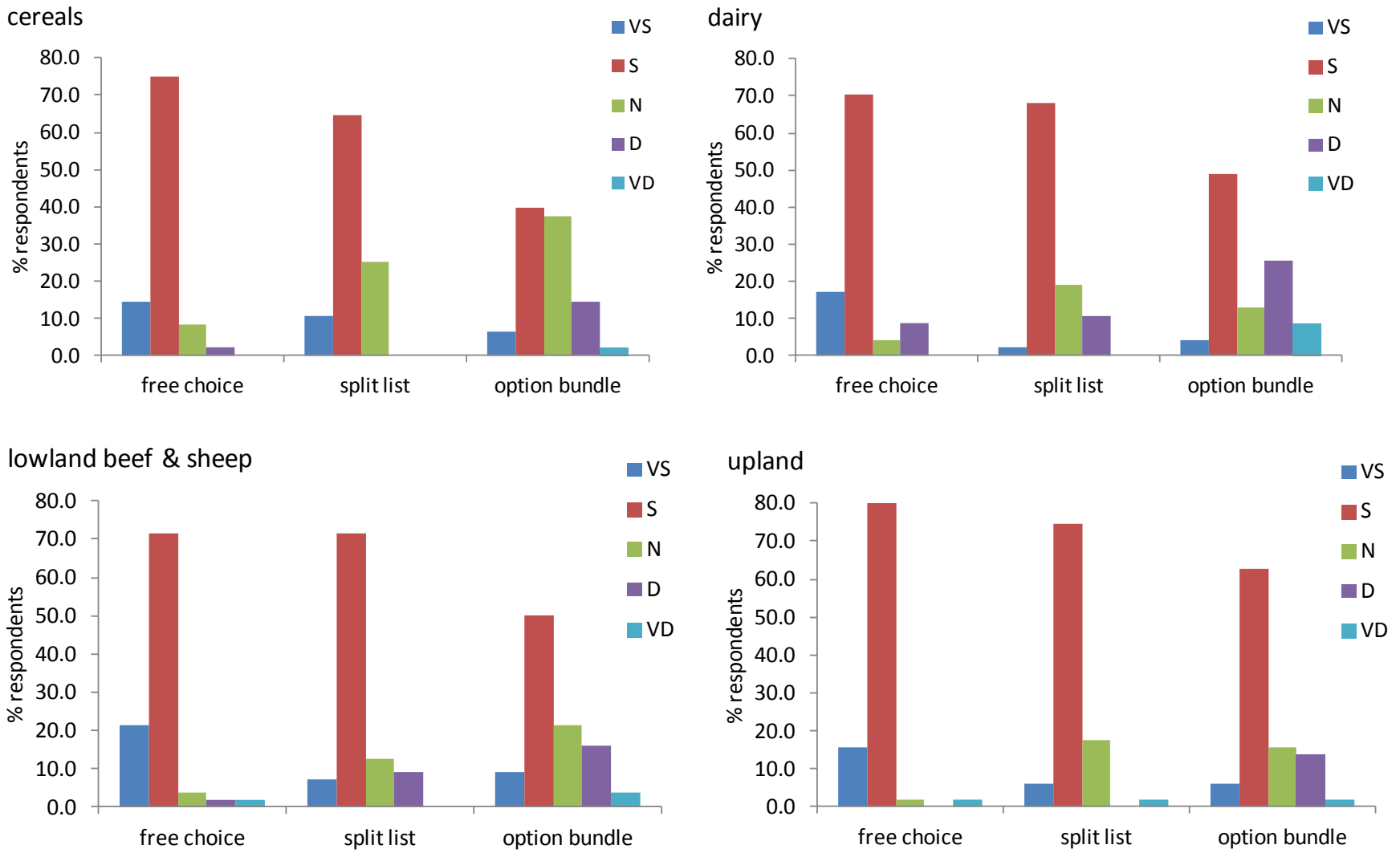



**Figure 4 Overall satisfaction scores for application process by farm type**

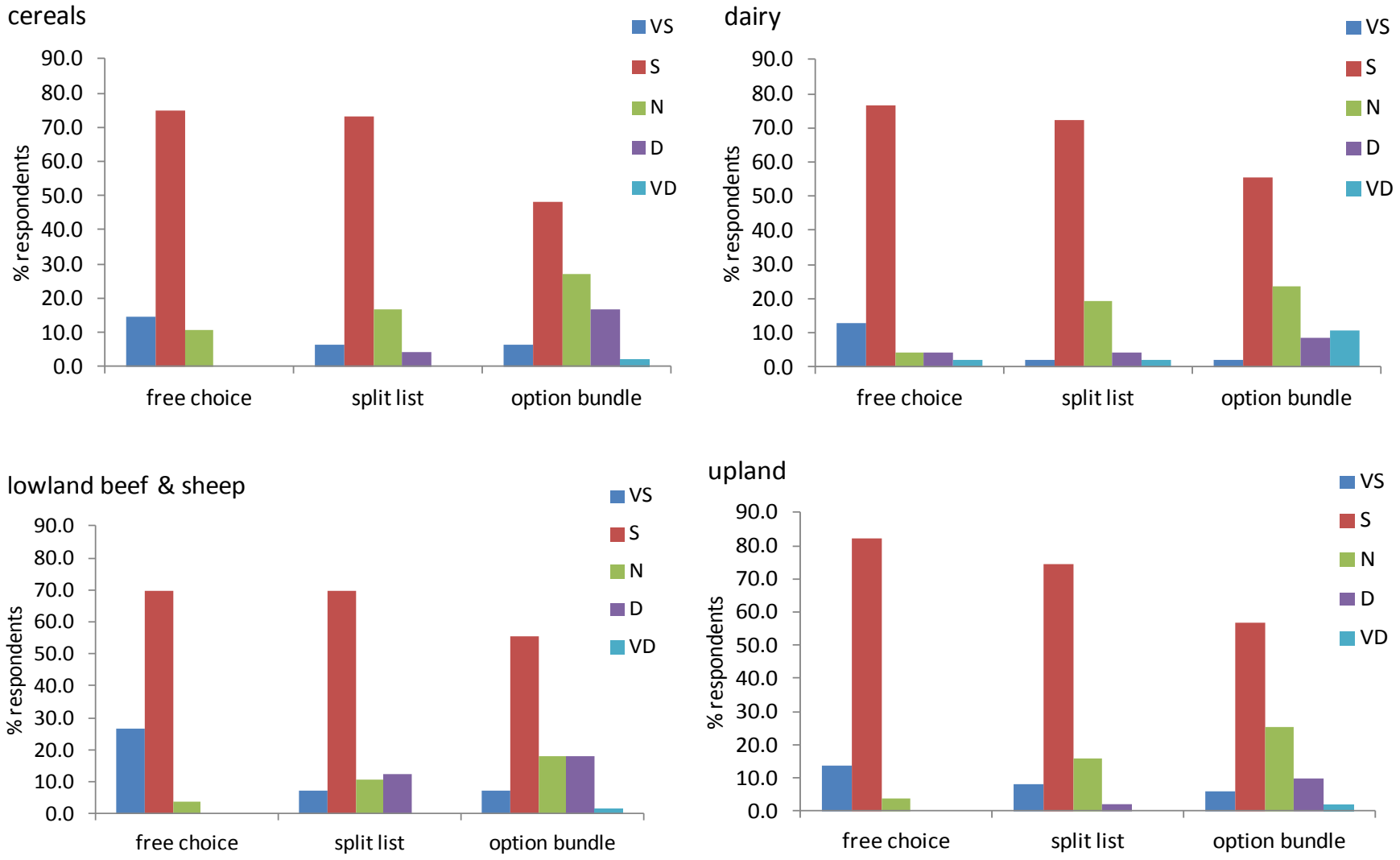



**Figure 5 Overall satisfaction scores for clarity of scheme requirements by farm type**

The least satisfied were generally the dairy farmers; 87% were satisfied or very satisfied with the process for the free choice scenario, 70% for the split list, and 53% for the option bundles; however satisfaction with the bundle scenario fell to 46% for cereals farmers. Levels of dissatisfaction were also highest for dairy farmers: 8.5% were dissatisfied or very dissatisfied with the free choice process, 11% with the split list process and 34% with the process for the option bundles scenario.

Similar levels of satisfaction with the clarity the scheme requirements were expressed by lowland and upland beef and sheep farmers. For both farm types, 99% were satisfied or very satisfied with the clarity of requirements for free choice, 77% (lowland) and 82% (upland) for split lists, and 63% for option bundles. However, more lowland farmers were dissatisfied or very dissatisfied with the clarity for split lists (13%; *cf* 2% for upland) or bundles (20%, *cf* 12% for upland). Similar levels of satisfaction were also expressed by cereals and dairy farmers: 89-90% were satisfied or very satisfied with the clarity of the free choice requirements. 75% (dairy) and 79% (cereals) for the split lists, and 57% (dairy) or 54% (cereals) for the option bundles. Only 4-6% were dissatisfied or very dissatisfied with clarity of the requirements for the split lists, but the figure was 19% for both cereals and dairy regarding the option bundles.

Where there were concerns about the application process these were generally linked to the increased complexity connected with the restricted scenarios. With respect to clarity of requirements, those who were most likely to be dissatisfied were those who were struggling to find sufficient points under the bundle scenario.

## 3.4 Option choice under the three scenarios

### *3.4.1 ELS*

The most popular ELS options under the free choice scenario were hedgerow options EB1 and EB2 (hedgerow management on both sides or one side respectively) and EK2 (Permanent grassland with low inputs), none of which were classed as HEV options. More than 50% of respondents in this scenario said they would take up these options (Table 3). Options that 30-50% % said they would take up included EB3 (Enhanced hedgerow management, a HEV option); also ED1 (Maintenance of traditional farm buildings) and EK3 (Permanent grass with very low inputs), neither of which are HEV options. Between 20 and 30% of interviewees said they would take up EB6 (Ditch management), EC2 (Protection of in-field trees in grassland) and EC3 (Maintenance of woodland fences), all three of which are HEV options. A further 14 options would be taken up by between 10 and 20% of respondents, including the HEV options EB7 (Half ditch management), EB10 (Combined hedge and ditch management, based on EB3), EB14 (a new option for hedgerow restoration in the lowlands), EC1 (Protection of in-field trees), ED5 (Management of archaeological features on grassland), EE9 (6m buffer strips next to a watercourse), EF2 (Wild bird seed mixture), and EJ11 (Maintenance of watercourse fencing) and the non-HEV options EB8 and 9 (Combined hedgerow and ditch management based on EB1 and 2 respectively), EB11 (Stone wall protection and maintenance), EE3 (6m buffer strips on cultivated land), EF1 (Field corner management), and EF6 (Over-wintered stubbles). All other ELS options were likely to be taken up be fewer than 10% of interviewees under the free choice scenario.

The remaining columns of Table 3 show the difference in uptake between the free choice scenario and the other scenario/approach combinations. Potential uptake of non-HEV options generally decreased (or only increased slightly) under restricted choice scenarios, whilst HEV options almost always increased. The amount of this increase was linearly related to the amount of option taken up under the free choice scenario, for both restricted scenarios (Figure 6), i.e. options which were more likely to be chosen under free choice also showed a greater level of increased uptake under the restricted scenarios. There were three outliers (labelled on the graphs), for which there was a greater than expected increase under

the restricted scenarios. These were all new options for 2013, and appeared to be attractive to farmers asked to maximise their uptake of HEV options. EB14 is Hedgerow restoration (formerly only available under UELS), EC23 is Establishment of hedgerow trees by tagging, and EJ11 is Maintenance of watercourse fencing.

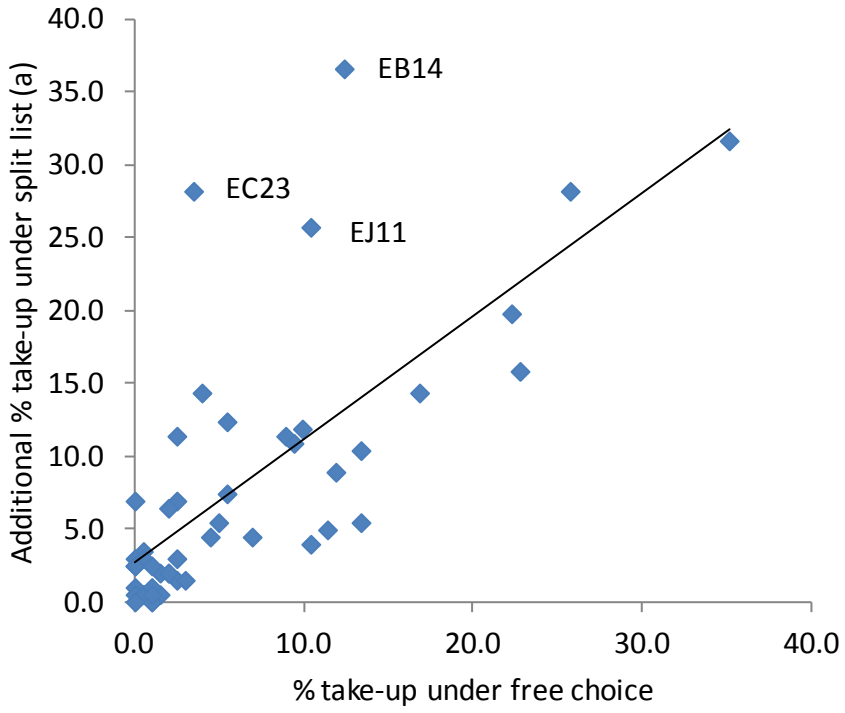
**Table 3 Percentage of all respondents choosing each ELS option under the free choice scenario, and change in percentage uptake under the split list and option bundle scenarios, approaches (a)[1] and (b)[2]. HEV options are highlighted in pale yellow.**

| Option code | % uptake under free choice | Change in % uptake under restricted scenarios[3] | | | |
|---|---|---|---|---|---|
| | | split list (a) | split list (b) | bundles (a) | bundles (b) |
| EB1 | 50.5 | -11.9 | -5.4 | -13.9 | -7.4 |
| EB2 | 56.9 | -7.4 | -3.0 | -9.4 | -2.5 |
| EB3 | 35.1 | 31.7 | 16.8 | 26.7 | 16.3 |
| EB4 | 3.5 | -0.5 | -0.5 | -1.0 | 0.0 |
| EB5 | 4.0 | -1.0 | -0.5 | -2.0 | -1.0 |
| EB6 | 22.8 | 15.8 | 10.9 | 10.4 | 7.4 |
| EB7 | 13.4 | 5.4 | 2.0 | 2.5 | 2.0 |
| EB8 | 14.4 | -5.4 | -2.0 | -4.5 | -2.5 |
| EB9 | 18.3 | -4.5 | -2.5 | -4.5 | -2.0 |
| EB10 | 11.9 | 8.9 | 5.9 | 5.9 | 5.0 |
| EB11 | 15.8 | 2.0 | 0.5 | 1.0 | 0.0 |
| EB12 | 7.4 | -3.5 | -1.5 | -3.5 | -2.0 |
| EB13 | 4.5 | -2.5 | -0.5 | -2.5 | -2.0 |
| EB14 | 12.4 | 36.6 | 21.3 | 33.7 | 22.3 |
| EC1 | 10.4 | 4.0 | 2.5 | 3.0 | 2.0 |
| EC2 | 25.7 | 28.2 | 20.8 | 19.3 | 16.3 |
| EC3 | 22.3 | 19.8 | 11.9 | 16.8 | 11.4 |
| EC4 | 9.9 | 11.9 | 3.5 | 10.4 | 6.4 |
| EC23 | 3.5 | 28.2 | 15.3 | 23.8 | 13.4 |
| EC24 | 4.5 | 4.5 | 1.0 | 3.0 | 0.0 |
| EC25 | 4.0 | 14.4 | 5.9 | 11.4 | 5.4 |
| ED1 | 33.7 | 3.5 | 2.0 | 1.5 | -1.5 |
| ED2 | 0.0 | 2.5 | 0.5 | 1.5 | 0.5 |
| ED3 | 1.0 | 0.0 | 1.0 | 0.0 | 0.5 |
| ED4 | 1.5 | 0.5 | 0.5 | 1.0 | 0.5 |
| ED5 | 13.4 | 10.4 | 5.4 | 6.9 | 5.0 |
| EE1 | 6.9 | -1.5 | -0.5 | -2.0 | -0.5 |
| EE2 | 6.9 | -3.0 | -1.5 | -1.5 | -1.5 |
| EE3 | 14.9 | -4.0 | -2.5 | -4.0 | -4.0 |
| EE4 | 2.0 | 1.5 | 0.0 | 0.5 | -1.0 |
| EE5 | 1.5 | 0.0 | -0.5 | 0.5 | -0.5 |
| EE6 | 4.5 | -2.0 | -2.5 | -2.5 | -2.5 |
| EE7 | 2.5 | 6.9 | 2.0 | 3.0 | 1.0 |
| EE8 | 2.5 | 1.5 | 1.0 | 1.0 | 0.0 |
| EE9 | 11.4 | 5.0 | 3.5 | 2.0 | 1.5 |
| EE10 | 5.4 | 7.4 | 3.0 | 3.5 | 3.0 |
| EE12 | 0.5 | 3.5 | 2.0 | 3.0 | 3.0 |
| EF1 | 18.3 | -0.5 | -3.0 | -1.5 | -2.5 |
| EF2 | 16.8 | 14.4 | 5.0 | 3.5 | 2.0 |
| EF4 | 8.9 | 11.4 | 2.5 | 7.4 | 2.5 |
| EF6 | 11.9 | -1.5 | 0.5 | -3.0 | -2.0 |
| EF7 | 0.5 | 0.5 | 0.0 | 0.5 | 0.0 |
| EF8 | 2.0 | 6.4 | -0.5 | 5.4 | 0.5 |
| EF9 | 0.0 | 3.0 | 0.5 | 4.5 | 2.0 |

| Option code | % uptake under free choice | Change in % uptake under restricted scenarios[3] | | | |
|---|---|---|---|---|---|
| | | split list (a) | split list (b) | bundles (a) | bundles (b) |
| EF10 | 0.0 | 1.0 | 0.0 | 1.5 | 0.0 |
| EF11 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 |
| EF13 | 1.5 | 2.0 | 0.0 | 1.0 | 0.5 |
| EF15 | 0.0 | 2.5 | 0.5 | 1.5 | 0.5 |
| EF22 | 2.0 | 2.0 | 0.5 | 1.0 | 0.5 |
| EF23 | 9.4 | 10.9 | 2.5 | 4.5 | 1.0 |
| EG1 | 0.5 | 3.0 | 0.5 | 2.0 | 1.0 |
| EG4 | 0.5 | 0.5 | 0.0 | 1.0 | 0.0 |
| EJ2 | 2.0 | 2.0 | -0.5 | 1.0 | -1.0 |
| EJ5 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 |
| EJ9 | 2.5 | 3.0 | -1.0 | 2.5 | 0.5 |
| EJ10 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 |
| EJ11 | 10.4 | 25.7 | 17.8 | 19.8 | 14.4 |
| EJ13 | 0.0 | 2.5 | 1.0 | 3.5 | 0.5 |
| EK1 | 5.4 | 12.4 | 4.5 | 8.9 | 10.4 |
| EK2 | 55.0 | -5.9 | -5.4 | -5.4 | -3.5 |
| EK3 | 32.2 | 1.0 | -0.5 | -6.9 | -7.4 |
| EK4 | 5.0 | 5.4 | 3.5 | 4.5 | 2.5 |
| EK5 | 9.4 | 1.0 | -1.5 | 1.0 | 0.5 |
| EK20 | 0.0 | 6.9 | 0.0 | 5.0 | 1.0 |
| EK21 | 2.5 | 11.4 | 2.5 | 6.9 | 2.0 |
| EL1 | 1.0 | 2.5 | 1.0 | 0.5 | -0.5 |
| EL2 | 8.9 | -1.0 | -1.5 | -1.0 | -1.0 |
| EL3 | 6.9 | 4.5 | 1.5 | 3.5 | 2.0 |
| EL4 | 3.0 | 1.5 | 0.5 | 1.0 | 0.5 |
| EL5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| EL6 | 1.0 | 0.5 | 0.5 | 0.0 | 0.0 |

[1] including HEV/priority options regardless of preference.
[2] taking into account individual preference, the appropriateness of the options and match to the farm system
[3] i.e. restricted minus free choice. Uptake under each scenario/approach can be determined by adding the number in each cell to the number in the corresponding free choice cell, for example, 50.5 -11.9 = 38.6% of respondents said they would adopt EB1 under the split list scenario, approach (a).

(i)




(ii)

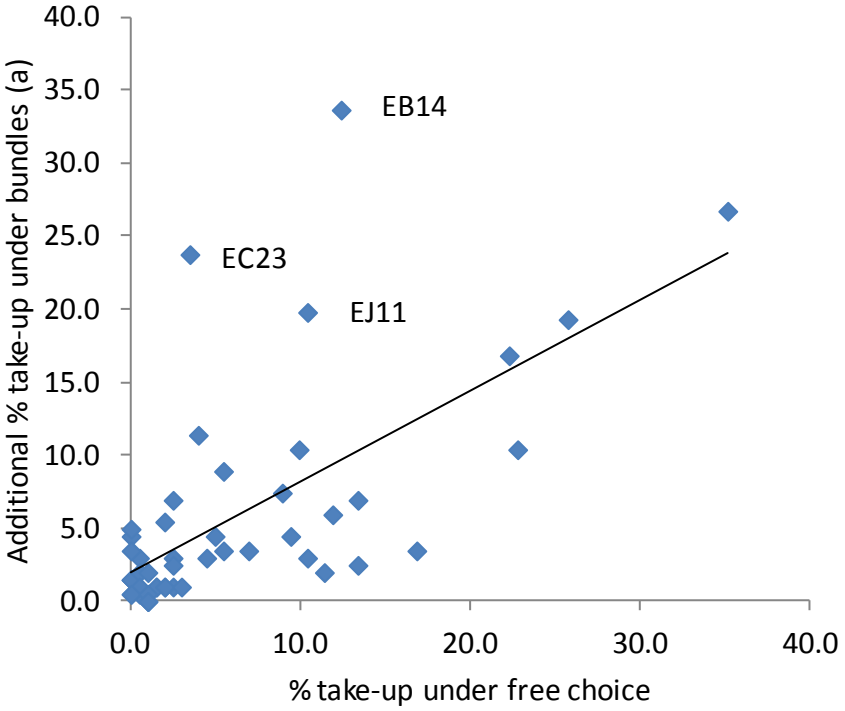
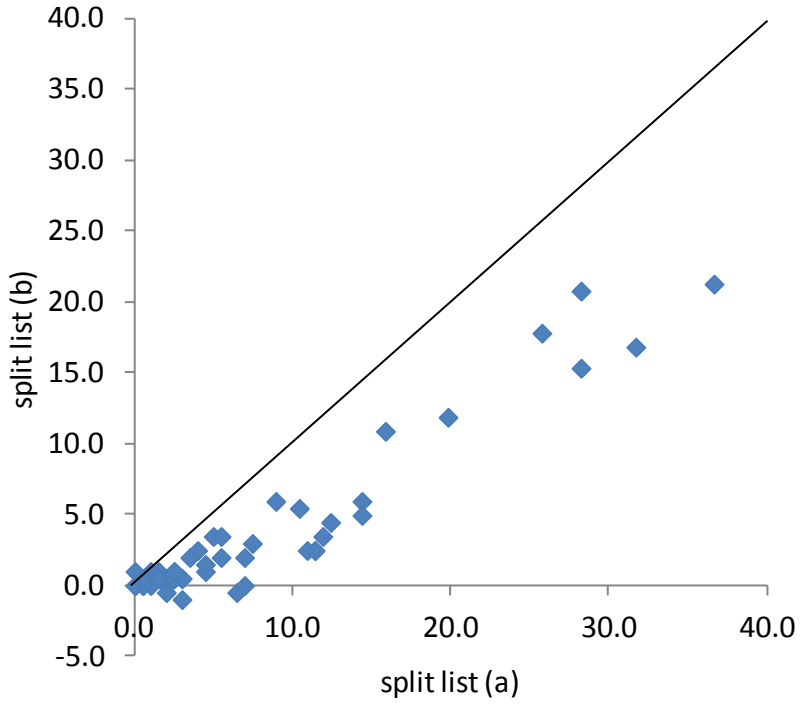



**Figure 6 Relationship between additional HEV option uptake under restricted scenarios (i) split lists; (ii) option bundles, and uptake under the free choice scenario, with fitted regression lines.**

(i)




(ii)

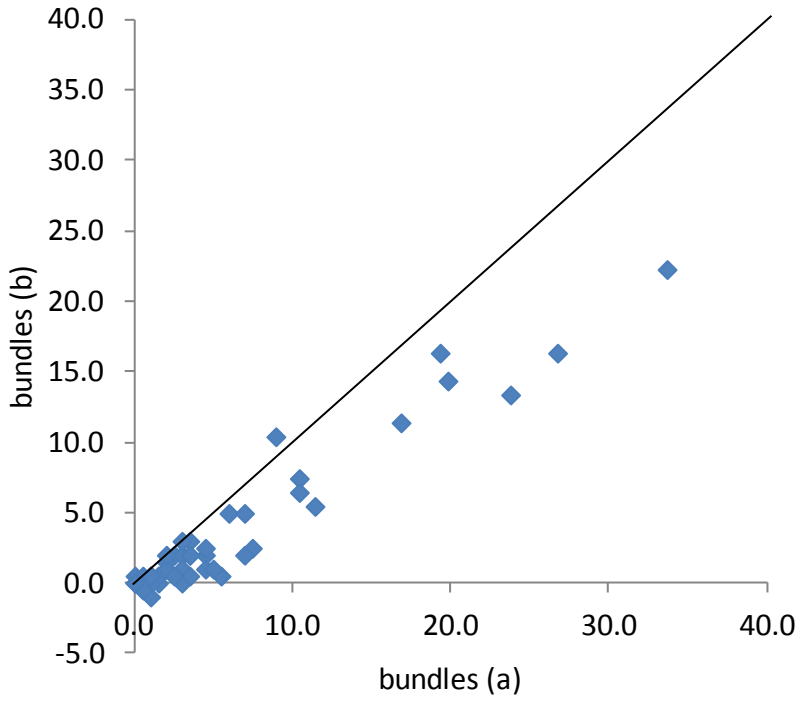



**Figure 7 Relationship between additional HEV option uptake under approaches (a) and (b) for (i) split list and (ii) option bundle scenarios. Diagonal lines represent equal values on both axes.**

As expected, projected uptake of HEV options under approach (a) was generally greater than under approach (b), though differences varied (Figure 7). Lines of equal value for both

axes have been plotted on the graphs in Figure 7 to indicate where points would fall if uptake of HEV options were equal under both approaches. The size of difference between approaches (a) and (b) (i.e. the distance from each point to the diagonal line) gives an indication of the extent to which farmers are willing to adopt each option.

### *3.4.2 UELS*

Table 4 shows uptake of UELS options on upland farms. The most popular options in the free choice scenario were UL18 (Cattle grazing on upland grassland and moorland, a HEV option), UB11 (Stone wall protection and maintenance on/above the moorland line, non-HEV) and UL20 (Haymaking, non-HEV).

**Table 4 Percentage of upland respondents choosing each UELS option under the free choice scenario, and approaches (a)[1] and (b)[2] to the split list and option bundle scenarios. HEV options are highlighted in pale yellow.**

| Option code | % uptake under free choice | Change in % uptake under restricted scenarios[3] | | | |
|---|---|---|---|---|---|
| | | split list (a) | split list (b) | bundles (a) | bundles (b) |
| UB4 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB11 | 15.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB15 | 1.9 | 1.9 | 1.9 | 0.0 | 0.0 |
| UB16 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| UB17 | 3.8 | 7.7 | 3.8 | 5.8 | 3.8 |
| UC5 | 0.0 | 3.8 | 1.9 | 3.8 | 1.9 |
| UC22 | 5.8 | 9.6 | 3.8 | 7.7 | 3.8 |
| UD12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| UD13 | 0.0 | 1.9 | 0.0 | 1.9 | 0.0 |
| UJ3 | 0.0 | 7.7 | 1.9 | 5.8 | 0.0 |
| UJ12 | 3.8 | 5.8 | 0.0 | 3.8 | 1.9 |
| UL17 | 3.8 | 3.8 | 1.9 | 1.9 | 1.9 |
| UL18 | 28.8 | 0.0 | 0.0 | -1.9 | 0.0 |
| UL20 | 15.4 | 7.7 | -1.9 | 1.9 | 0.0 |
| UL21 | 9.6 | 19.2 | 5.8 | 15.4 | 7.7 |
| UL22 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| UL23 | 0.0 | 0.0 | 0.0 | 3.8 | 1.9 |

[1] including HEV/priority options regardless of preference.
[2] taking into account individual preference, the appropriateness of the options and match to the farm system
[3] i.e. restricted minus free choice (see footnote to Table 3 for further details).

In contrast to the results for ELS options, there was little change in uptake of non-HEV UELS options, apart from UB11 (stone wall protection and maintenance), which only appeared under the free choice scenario, and UL20 (Haymaking), which increased under approach (a) in both restricted scenarios, but declined or stayed constant under approach (b) (Table 4). Most HEV options did however increase under the restricted scenarios, though some,

including UB16 (Earth bank restoration), UL18 (Cattle grazing on upland grassland and moorland) and UL22 (Management of enclosed rough grazing for birds), did not. UL18 is of particular interest, because it was one of the most popular options under the free choice scenario, but did not increase under the restricted scenarios, in contrast to the general trend for both ELS and UELS for HEV options with high uptake under the free choice scenario to increase more under the other scenarios. This suggests that all those interviewees who were in a position to take up this option had already done so through free choice.

### 3.5 Choice of option bundles

The most widely chosen bundles were the landscape and historic, and climate change bundles (Table 5). The least popular were the arable plant and shellfish/bathing water bundles, with no agreement holders selecting these despite them being available on around a quarter of the farms visited. Ground-water was also infrequently selected. Although most bundles chosen were relevant to the priority area(s) within which the agreement was situated, a number were not, and this applied particularly to the landscape and historic bundle which was chosen as many times outside priority areas as inside. The farmland birds bundle was also frequently chosen outside priority areas.

**Table 5 Bundles chosen under the 'option bundles' scenario**

| Bundle | total chosen | Available | chosen when priority | chosen when not priority |
|---|---|---|---|---|
| **Farmland Birds** | 21 | 65 | 12 | 9 |
| **Lowland Farmland Wildlife** | | | | |
| Arable Plants | 0 | 43 | 0 | 0 |
| Bats & Dormice | 15 | 57 | 11 | 4 |
| Bees & Butterflies | 14 | 51 | 10 | 4 |
| Water Voles | 12 | 88 | 11 | 1 |
| Farm wildlife (sub-theme not specified) | 16 | | | |
| **Upland Wildlife**[1] | 13 | | | |
| **Soil & Water** | | | | |
| Surface water | 12 | 77 | 10 | 2 |
| Groundwater | 4 | 29 | 0 | 4 |
| Shellfish/Bathing | 0 | 56 | 0 | 0 |
| Soil and water (sub-theme not specified) | 18 | | | |
| **Landscape & Historic** | 39 | 57 | 19 | 20 |
| **Climate Change**[1] | 36 | | | |

[1] These bundles were identified by farm type, but in some instances the availability was incorrectly assigned at interview so choice in relation to availability is not tabulated.

## 3.6 Percentage of points devoted to HEV options under the three scenarios

### *3.6.1 Comparison of percentage HEV points under free choice and split lists with points from options under selected bundle*

The mean percentages of agreement points targets accounted for by HEV options under the free choice and split list scenarios, and options from the selected bundle under the bundle scenario are shown in Table 6. Note that this gives equal weight to all agreements, regardless of farm size. As expected, percentages were higher under approach (a), where agreement holders were asked to maximise the points devoted to HEV options, than under approach (b), when they were allowed to select only those HEV options they were happy with. The contribution of HEV options to the points target was higher for the split list under both approaches than under the free choice scenario, but not necessarily for the bundles. This is not surprising, as the number of options available under individual bundles was far fewer than under the split lists.

**Table 6 Percentage of target points accounted for by HEV options (free choice and split list scenarios) and bundle options (bundle scenario) under approaches (a) and (b).**

| Scenario and Approach | Farm type | | | |
|---|---|---|---|---|
| | Cereals | Dairy | Lowland Beef and Sheep | Upland |
| **Free choice** | 45.1 | 31.9 | 18.9 | 37.5 |
| **Split (a)** | 64.9 | 64.9 | 66.2 | 66.5 |
| **Bundle (a)** | 32.2 | 47.5 | 41.3 | 32.5 |
| **Split (b)** | 51.8 | 47.2 | 37.7 | 54.4 |
| **Bundle (b)** | 26.3 | 28.0 | 24.0 | 28.2 |

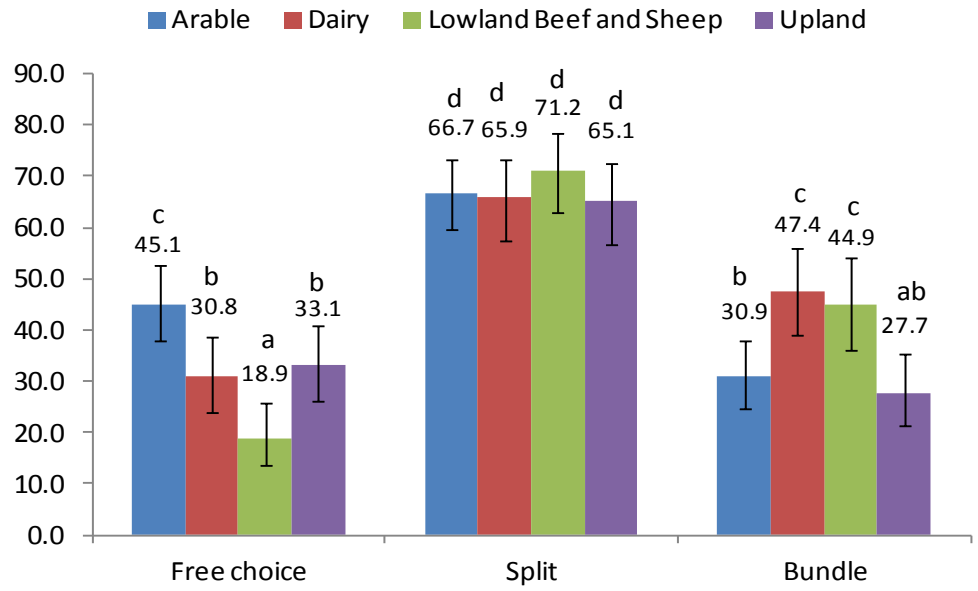
Statistical analysis of results under approach (a) did not show any overall significant effect of farm type, but there was a significant effect of scenario ($P<0.001$), and also a significant interaction between scenario and farm type ($P<0.001$). Under approach (b), There were significant effects for farm type ($P<0.02$), scenario ($P<0.001$), and a significant interaction between scenario and farm type ($P<0.001$).

The significance of differences between means for individual farm type for each scenario was tested using Fisher's Least Significant difference (LSD). Predicted means arising from the statistical analysis, are shown in Figure 8 for approaches (a) and (b), with confidence intervals and indications of statistical differences between individual scenario/farm type combinations. Note that the predicted means differ from the observed means because the model predictions are done on the logit scale, assuming a normal distribution of the random term on that scale. This is the result of including 'farm' as a random variable. For the same reason, predicted means vary slightly between approach (a) and approach (b) for the free choice scenario.

The lowest contribution of HEV points was observed for potential agreements in the free choice scenario on lowland beef and sheep farms, which were significantly different from other farm types. Cereals farms had a significantly higher contribution under free choice than the other farm types, whereas dairy and upland farms had a similar percentage accounted for by HEV points.

Under approach (a), there was no difference between farm types in the split list scenario; all showed significantly (and substantially) higher contributions of HEV points than in the free choice scenario, with around two thirds of the points target devoted to HEV options. The pattern for bundles was different; the lowest contribution of bundle options was on upland and cereals farms, with dairy and lowland beef and sheep significantly higher (Figure 8).

Approach (a)




Approach (b)

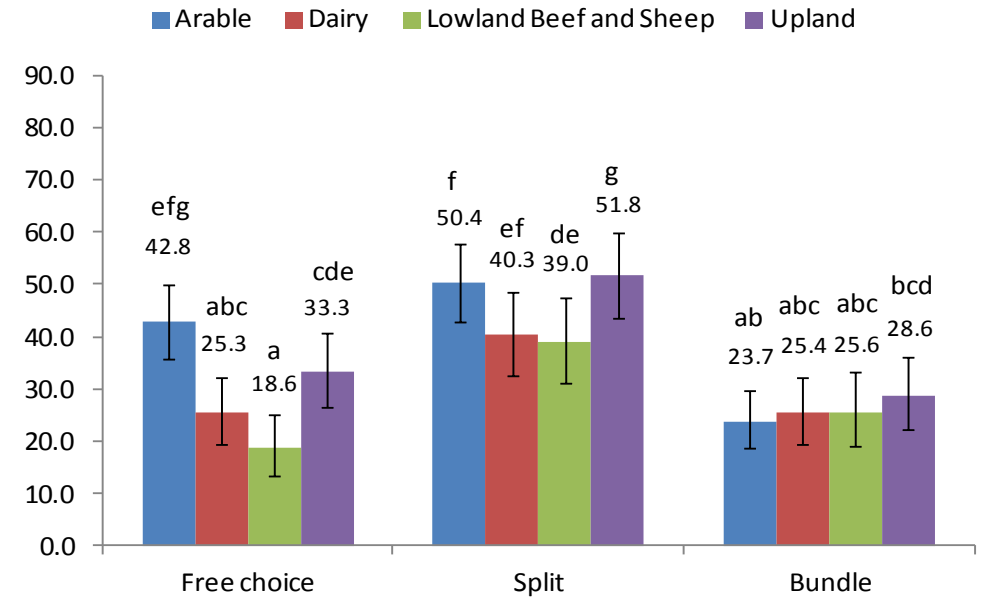



**Figure 8 Percentage of target points accounted for by HEV options (free choice and split list scenarios) and bundle options (bundle scenario) under approaches (a) and (b), as predicted by GLMM analysis. Means are back-transformed; error bars are confidence intervals. Columns with the same letters above are not significantly different at P<0.05.**

As expected, under approach (b), in general a lower proportion of the points target was composed of HEV options (split list scenario) or options from the chosen bundle, though this was not always the case; proportions were similar for the bundle scenario in upland farms.

The degree of reduction varied between farm types, with lowland livestock farms (both dairy and beef/sheep) exhibiting significantly lower proportions of HEV points than cereals and upland farms in the split list scenario under approach (b). There was also a greater reduction in proportions of bundle points for the two lowland livestock farm types in comparison with approach (a). This led to levels of contribution from bundle options being relatively similar, with no significant differences between farm types in the bundle scenario under approach (b) (Figure 8).

### *3.6.2 Comparison of percentage HEV points under free choice and split lists with percentage HEV points under option bundle scenario*

In the option bundle scenario, interviewees were asked to concentrate on choosing HEV options from the selected bundle, and the analysis of the results in these terms was presented in the previous section. However, the range of options available within individual bundles is much lower than in the split list scenario, and interviewees could also choose HEV options that were not included in the bundle but would contribute to their points target. Therefore, in order to assess the overall environmental benefit arising from the HEV options in the potential agreements under the bundles scenarios, the results were re-analysed as the percentage contribution of all HEV options to the points target for all three scenarios, regardless of whether they were in the selected bundle. This provides a direct comparison on a common basis for all three scenarios.

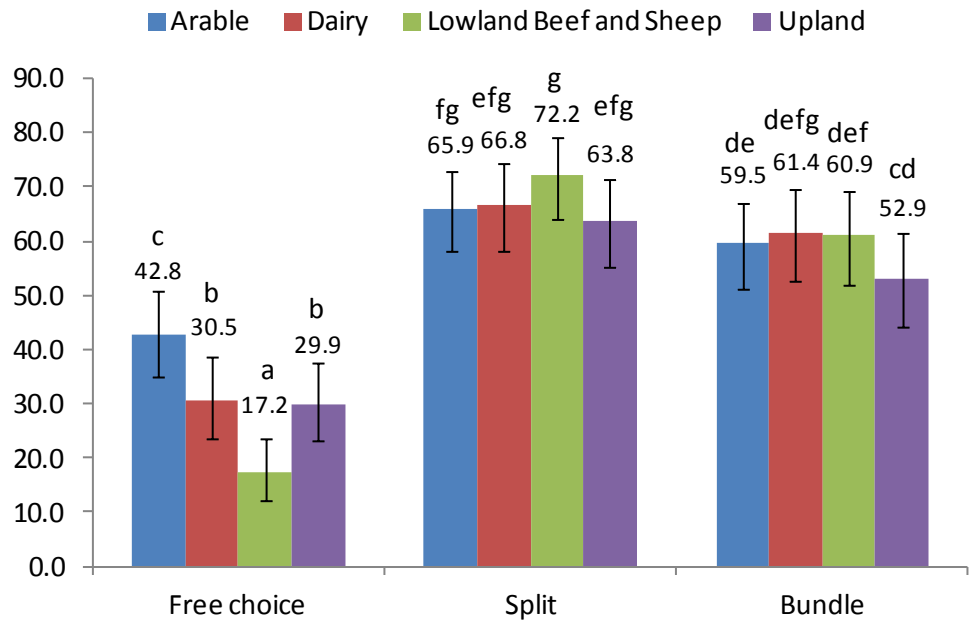
**Table 7 Percentage of target points accounted for by HEV options in all three scenarios, under approaches (a) and (b).**

| Scenario and Approach | Farm type | | | |
|---|---|---|---|---|
| | Cereals | Dairy | Lowland Beef and Sheep | Upland |
| **Free choice** | 45.1 | 31.9 | 18.9 | 37.5 |
| **Split (a)** | 64.9 | 64.9 | 66.2 | 66.5 |
| **Bundle (a)** | 59.5 | 60.0 | 55.3 | 57.5 |
| **Split (b)** | 51.8 | 47.2 | 37.7 | 54.4 |
| **Bundle (b)** | 53.7 | 39.0 | 38.0 | 52.1 |

Percentages of points targets accounted for by the bundle scenarios were slightly lower than for the split list scenarios under approach (a), but were similar under approach (b) except for the dairy farm type (though statistical analysis indicated that this difference was not significant; see below) (Table 7).

Statistical analysis of results under approach (a) did not show any overall significant effect of farm type, but there was a significant effect of scenario ($P<0.001$), and also a significant interaction between scenario and farm type ($P<0.001$). Under approach (b), There was a significant farm type effect ($P<0.001$), and well as a significant effect of scenario ($P<0.001$), but scenario x farm type interaction was not significant ($P<0.054$).

Approach (a)




Approach (b)

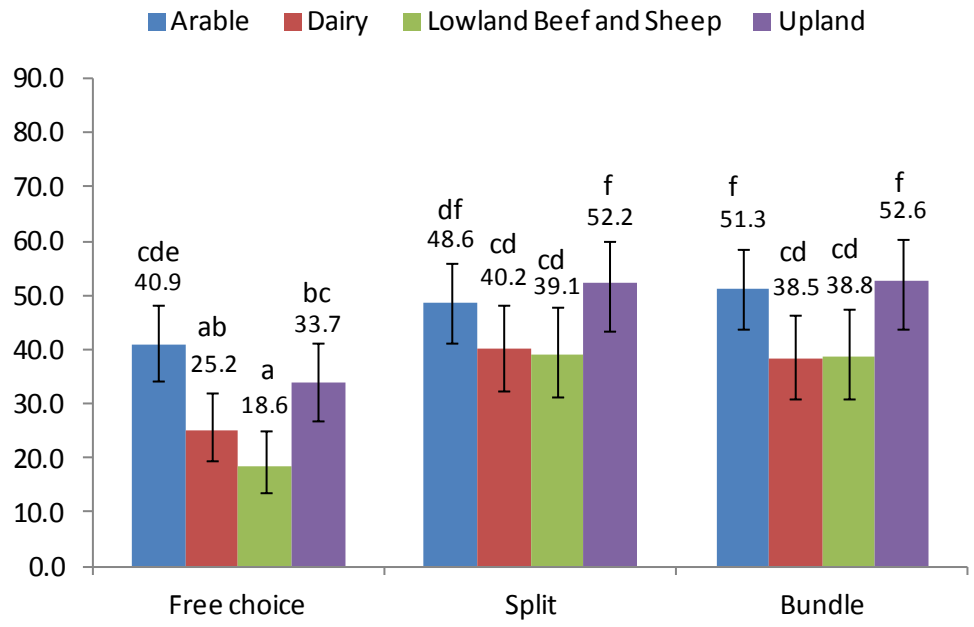



**Figure 9 Percentage of target points accounted for by HEV options for all three scenarios under approaches (a) and (b), as predicted by GLMM analysis. Means are back-transformed; error bars are confidence intervals. Columns with the same letters above are not significantly different at P<0.05.**

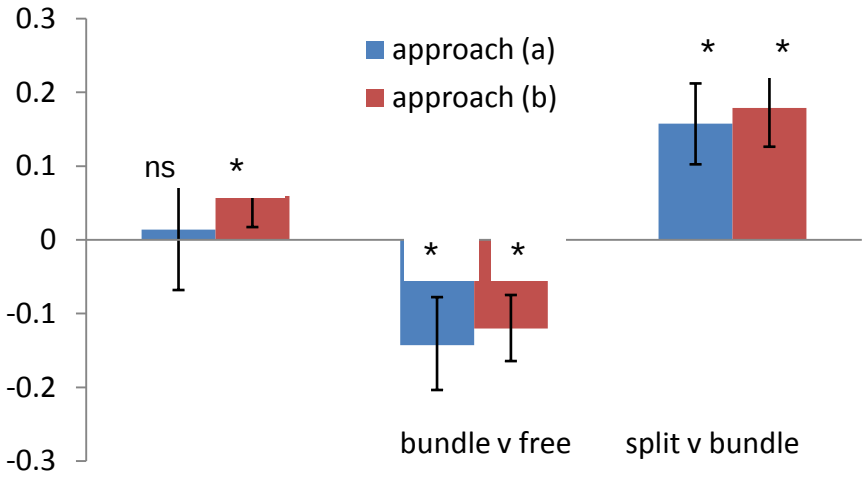
There were no significant differences between farm types for either the split lists or bundles under approach (a) (Figure 9). Contribution of HEV options towards the points target was significantly lower in the bundles scenario than in the split list scenario for cereals, lowland beef and sheep, and upland farms.

Under approach (b), a different picture emerges. Results for both restricted scenarios were significantly higher than the free choice scenario, but there were no significant differences between corresponding farm types in the split list and bundle scenarios. In both of these scenarios the proportion of the points target accounted for by HEV options was lower for both lowland livestock farm types than for cereals and upland, but still greater than the free choice scenario.

### 3.7 Scenario outcomes taking scheme uptake into account

In these analyses, outcomes in terms of percentages of HEV points under each scenario/approach combination were considered after taking into account the decision of the agreement holder as to whether they would complete an application for the scheme in that situation. The more demanding the scenario, the fewer interviewees were prepared to enter the scheme (see section 3.1).

(i) Comparisons with points from selected bundle only in option bundle scenario




(ii) Comparison of HEV points across all three scenarios

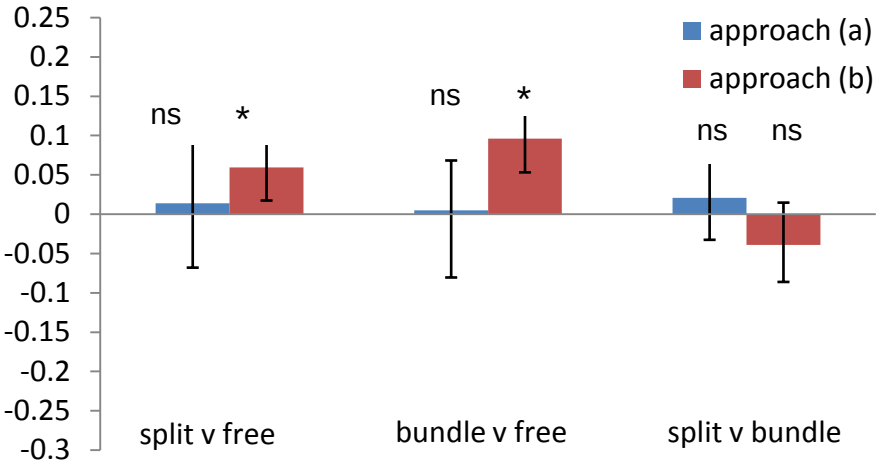



**Figure 10 Comparisons of differences of proportions of points targets accounted for by HEV options, with confidence intervals: (i) taking into account only options from selected bundle in bundle scenario; (ii) taking into account all HEV options in bundle scenario**

### *3.7.1 Explanation of graphical presentation*

The outcome of the statistical analysis is shown in Figure 10. This shows the results of two-way comparisons between the three scenarios for approach (a) and approach (b), with the option bundle scenario treated in two different ways. In Figure 10(i), only the points from the options in the selected bundle are included in the calculations. In Figure 10(ii), all HEV options taken up are included in the calculations for the bundle scenario, including those HEV options that were not in the selected bundle. In the analysis, the selection of farms during re-sampling was adjusted to account for the proportion of each of the four farm types in the total population of agreement holders, as detailed in section 2.6.

The quantities that are plotted in Figure 10 are the differences in the proportions of target points accounted for by HEV options for the two scenarios in question, e.g. for the free *v* split comparison, the quantity is:

sum (HEV pts split)/sum (target pts split) - sum (HEV pts free)/sum (target pts free)

The first scenario in each pairing is the one that appears positive on the graph if the proportion is higher. Thus, for the first pairing, the proportion is higher for the split list scenario than for the free choice scenario under both approaches, in both graphs.

Where the confidence intervals overlap zero, the difference between the two scenarios is not significant (ns). Where the confidence interval does not overlap zero, the difference is statistically significant (marked * on graph).

### *3.7.2 Interpretation*

*Split list vs. free choice*

The split list scenario performed better than the free choice scenario, in terms of the proportion of the points target accounted for by HEV options, under both approaches, but the difference was only significant under approach (b).

*Bundle vs. free choice*

The results for the option bundle scenario depend on whether only the options from the selected bundle are considered or whether all HEV options are included in the calculations. In the first instance Figure 10(i), the free choice option appears to be preferable to the bundle option. However, this is not really a fair comparison, because it does not take into account other HEV options selected by the applicant that are not part of the option bundle. A more realistic indication of the overall environmental value of the scenario is given in Figure 10(ii), where these additional HEV options are taken into account. For approach (a), there is no significant difference between the two scenarios. However, under approach (b), the bundle scenario is significantly better than the free choice scenario.

*Split list vs. bundle*

Again, where only selected bundle options are considered, the split list scenario appears to be preferable (Figure 10(i)), but when all HEV options are considered (Figure 10(ii)), there is little to choose between the scenarios, with no significant difference under either approach.

### *3.7.3 Differences between farm types*

Figure 11 shows comparisons of differences of proportions of points targets accounted for by HEV options for the four farm types (equivalent to Figure 10(ii)). Where error bars do not overlap zero, differences are statistically significant. Clearly there are considerable differences between the farm types.

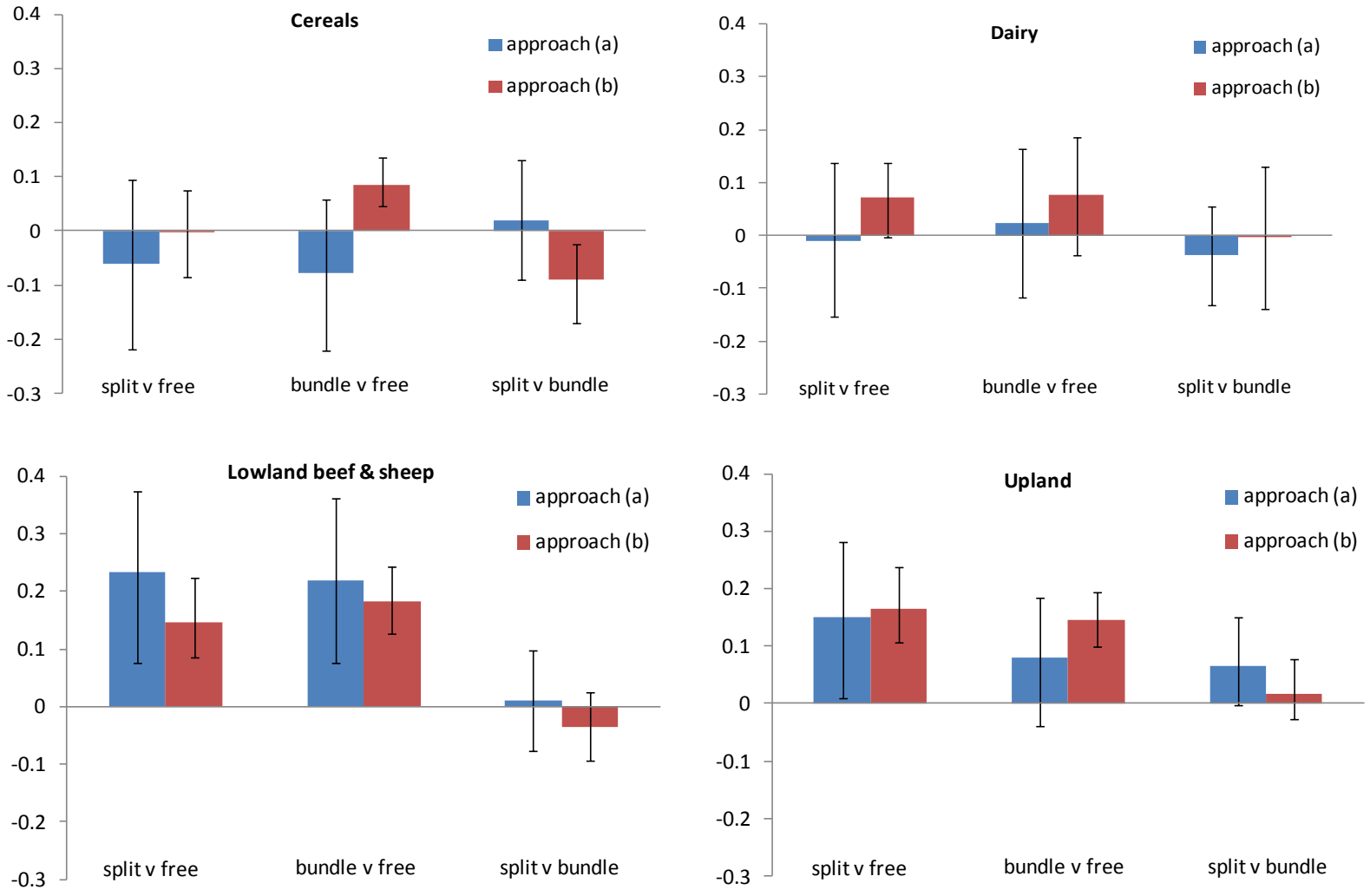



**Figure 11 comparisons of differences of proportions of points targets accounted for by HEV options, with confidence intervals, taking into account all HEV options in bundle scenario, for the different farm types**

On cereals farms, there were no significant differences between scenarios under approach (a), but the bundle scenario gave significantly better results than the free choice or the split list scenario under approach (b). However, for the dairy farms there was no significant difference between any of the scenarios, under either approach. In contrast, on lowland beef and sheep farms, significant differences were observed between both restricted scenarios and the free choice scenario, under both approaches. There was no difference between the split list and bundle scenarios, however. On upland farms, the split list scenario was only just significantly different from free choice under approach (a), but both split list and bundle scenarios were significantly different from the free choice scenario under approach (b). As for the lowland grazing livestock farms, there was no significant difference between the two restricted scenarios.

Although these results do highlight differences between farm types, they don't materially alter the main conclusion that approach (b) works better than approach (a). Only on lowland beef and sheep farms was there any indication that approach (a) might have performed slightly better than approach (b), though differences were not statistically significant. There is generally little difference between split lists and bundles apart from cereal farms, where the bundle scenario performs better than both free choice and split lists under approach (b). It is noteworthy that confidence intervals are generally larger under approach (a) than approach (b), indicating a wider range of responses.

### *3.7.4 HEV points as percentage of points target after allowing for scheme uptake*

The mean percentage of agreement points targets accounted for by HEV points under the different scenario variants described above and illustrated in Figure 10 was calculated from observed data, as this was not readily derived from the statistical model (Table 8). The table gives the percentages without weighting for farm type (i.e. calculated using the data collected in the proportions sampled), and with weighting for farm type (i.e. adjusting to proportions found in the total population of agreement holders, as used in the analysis above).

**Table 8 Percentages of points targets accounted for by HEV options, taking into account only options from selected bundle in bundle scenario (bundle points) or taking into account all HEV options in bundle scenario (bundle HEV), with and without weighting adjustment for proportions of agreements in the different farm types.**

| | without weighting | with weighting |
|---|---|---|
| free choice | 35.5 | 36.2 |
| **approach (a)** | | |
| split | 39.7 | 39.5 |
| bundle points | 25.0 | 24.7 |
| bundle HEV | 38.0 | 37.7 |
| **approach (b)** | | |
| split | 43.1 | 42.6 |
| bundle points | 25.9 | 25.5 |
| bundle HEV | 46.2 | 47.0 |

As can be seen from Table 8, it makes little difference whether the results are considered with or without weighting to allow for the proportion of the farm types in the population as a whole. Table 8 also shows that the highest percentages of HEV points overall arise under approach (b), where interviewees were allowed to choose only HEV options that they were happy with, because a larger number did not wish to enter the scheme under the more demanding approach (a). When taking all HEV points are taken into account for the bundle scenario, this gives the highest proportion of points under HEV options under approach (b).

*Conclusion*

In conclusion, when considering the weighted results for all HEV options over all three scenarios, approach (b) gives better results for both restricted scenarios when compared with the free choice scenario. The difference between between the bundle and free choice scenarios is slightly greater than that between the bundle and split list scenarios, though when directly compared the difference was not significant. Overall therefore, the analysis indicates that the option bundle scenario under approach (b) gives the best results. Examining the percentages of points targets accounted for by HEV points shows that the bundle scenario results in a slightly higher percentage under approach (b) than the split list approach. However, split list satisfaction scores were higher than those for the option bundle scenario, for both the application process and the clarity of requirements, indicating that farmers prefer the simpler split list scenario. This should be taken into account when weighing up the relative advantages of the different scenarios.

# 4 Discussion

## 4.1 Caveats

In considering the results it needs to be borne in mind that the options identified as being of High Environmental Value (HEV) in the split lists, and options included in the bundles, were not the same as those currently in use by ETIP and other advisers. In particular, several options that are widely taken up in agreements were not included in the lists used for this project, but were included in the lists posted on the Natural England website. These include ED1 (Maintenance of weatherproof traditional farm buildings), EF1 (Management of field corners), EK2 and EK3 (Permanent grassland with low and very low inputs respectively), and EF6 (Overwintered stubbles). EK2 and EK3 in particular are very popular options, occurring in 51.2% and 37.1%* of current agreements, and accounting on average for 21.8% and 10.7% of points respectively (G. Jones, pers. comm. from NE data analysed for the ETIP Value for Money project). This probably explains why the estimated percentages of HEV options are apparently low compared to the observed percentages in existing agreements, which are over 60% on average (G. Jones, pers. comm.).

It is also worth noting that the constraints placed on bundle choice differ from actual current practice. In this project, interviewees were asked to choose one bundle, even if they were in more than one priority area. However, common practice among ETIP advisers is to advise that applicants can include HEV options from more than one bundle if the farm is in more than one priority area.

The interview process necessarily differed from the completion of an ELS application form. Five different scenario/approach combinations were covered in sequence, concentrating on the choice of options in each case. Parts of the application form not concerned with option choice and points calculations were therefore not completed (e.g. location within fields). The scenarios and approaches were completed in the same order in every interview, progressing from the simplest (free choice) to the most complex (bundle) scenario, as it was felt that this would aid understanding by allowing additional information to be provided each time a transition was made to a new scenario. However, it is possible that the results obtained could have been influenced by the order in which the scenarios were considered. Ideally, they would have been considered in random order, but it was felt that this could make the interviews too difficult to carry out. Feedback from several of the surveyors indicated that the interviewees found the interviews to be quite lengthy and difficult, because they were repeatedly being asked to make hypothetical decisions under different scenarios. Most felt that they had 'had enough' by the end. Therefore anything that made comprehension more difficult could have jeopardised the whole data collection process.

## 4.2 Outcomes

The main purpose of this project was to provide guidance on whether directing choice of options under ELS and UELS would result in an improved environmental outcome overall, and if so, which of the two restricted scenarios (split lists or option bundles) would be likely to produce the best result. In order to assess this, we use the proportion of the agreement points target that is accounted for by high environmental value (HEV) options, as defined by Natural England, as a measure of the environmental value of the agreement. However, in calculating the overall outcome for the scheme as a whole, we need also to consider the impact of imposing restrictions on choice of options, on the uptake of the scheme as a whole, and the environmental impact of reduced uptake of non-HEV options. Any improvements in environmental value arising from restricting option choice need to be balanced against corresponding reductions in uptake of non-HEV options, whether through reduced uptake within agreements or reductions in uptake of agreements.

The comparative analysis of the scenarios indicates that approach (b), where farmers are allowed to choose the options that they are comfortable with, gives better outcomes because under approach (a), to many of the interviewees indicated that they would not submit an application. When all HEV options were taken into account, both restricted scenarios gave better outcomes, in terms of the proportion of target points accounted for by HEV options, with the option bundle scenario appearing to give marginally better results overall. All other factors being equal therefore, this would appear to be the best scenario to adopt. However, satisfaction scores were higher for the split lists than for option bundles, and there also appeared to be a greater need for advice under this scenario. Taking these aspects into account would suggest that the split list scenario might be preferable.

In terms of the proportion of the points target that should be devoted to HEV points through compulsion, if this route is adopted, the data in Table 8 suggest that around 45% should be achievable under the conditions defined for this project.

Finally, it is worth noting that farmers who are most ambivalent about participating in ES are likely to be those who face the most additional cost, and hence are also most likely to be delivering additionality in the scheme. If these farmers exit the scheme, then there will be an offsetting negative environmental impact, although it is not possible to comment on the extent to which this impact may negate the positive impact from a higher amount of HEV options deployed.

## Appendix 1: Letters and information sent to agreement holders and interviewees

### 1. Letter requesting participation in the survey

Date

Recipient's name

Recipient's Company

Address line 1

Address line 2

Address line 3

Address line 4

Dear Sir/Madam

**Evaluation of the impacts of changes to Entry Level Stewardship application process**

I am writing to ask if you would be prepared to take part in a survey to investigate the effects of possible changes to the application process for Entry Level Stewardship (ELS), to encourage greater uptake of high environmental value (HEV) options. This would involve completion of 'dummy' applications for 3 different scenarios. The interviewer would be interested in your potential choice of options under each scenario. We anticipate that the interview would take between one and two hours. If you take part, we will provide you with a summary report at the conclusion of the work.

I realise that this is a very busy time of year for many farmers, and apologise for sending this request to you at this time. Unfortunately we cannot wait until later in the year because the information is urgently needed to help Natural England formulate proposals for a revised scheme as part of the forthcoming reform of the Common Agricultural Policy in 2013. I very much hope therefore that you can find time to help us with this important work. The interviews will be carried out between September and November.

**If you are willing to be interviewed**, please complete and return the reply slip, including a telephone number on which you can be readily contacted. We will select a sample of 200 from the replies received, and if you are one of those selected, a member of the evaluation team will contact you in due course, by telephone, to arrange a mutually convenient time for a visit. If you are selected, Natural England will supply us with a copy of the options in your current agreement, your FER map and agreement map so that our surveyors are fully briefed for the interview.

Participation in this survey is entirely voluntary. The information you provide is covered by the 1998 Data Protection Act, and will not be used for any purpose other than the research described above. All individual farm data will be treated in confidence and only amalgamated results will be reported. I should emphasize that this is **not** an inspection, and no individual farm data will be passed to inspection agencies. Taking part in the survey will not have any effect on your existing agreement or any future agreements.

May I thank you in advance for your help with this exercise. It is important that Natural England hears your views about the proposed changes to the scheme so that they can improve the scheme design and make it more effective in future.

Yours sincerely

(signature)

(name)

telephone

e-mail

---

**Reply slip**

Reference number.....

Name.....

Address.....

.....

.....

Telephone.....

Mobile.....

I am willing to take part in this survey and to be contacted by a surveyor from Fera or ADAS to arrange an interview at a mutually convenient time. I agree to copies of my agreement map, FER map and option details being made available to the surveyor for the purposes of the interview. These will remain confidential and not be made available to any third parties.

Signed.....

## 2. Letter sent prior to interview

Date

Recipient's name

Recipient's Company

Address line 1

Address line 2

Address line 3

Address line 4

Enter 'Our Ref:' followed by Fera reference, or press space bar

Dear

**Evaluation of the impacts of changes to Entry Level Stewardship application process**

Thank you very much for agreeing to take part in our survey to investigate the effects of possible changes to the application process for Entry Level Stewardship (ELS), to encourage greater uptake of high environmental value (HEV) options. If your farm is selected, one of our surveyors will be in touch at some point during the next few weeks to arrange an interview. Meanwhile, I am enclosing a 'template' for the interview which you might like to look through before our surveyor arrives, to give you an idea of what will be covered during the process. There is no requirement to complete any paperwork in advance and at the interview all forms involved will be completed by the surveyor. I'm also enclosing a copy of the Natural England information note about some changes to the scheme which you might find useful.

Thanks again for helping us with this survey. I hope you find the interview interesting.

Yours sincerely

Ruth Laybourn

## 3. Information sent prior to interview (Interview template)

### Preamble

#### *The purpose of the interview*

We want to find out what your option choices would be under three scenarios which represent possible changes in the way that Entry Level Stewardship (ELS) might operate in the future. To do this, we ask that you assume you are applying for a new agreement and consider how you would meet the points requirement under each of the scenarios described below. In each case, the interviewer will give you guidance as to which options would be appropriate for your farm, but you do not have to follow this guidance if you don't wish to.

The first scenario is similar to the way the scheme operates at the moment, in that there is free choice from the list of options. However, some changes have been made which will come into operation from January 2013, and we would like you to take these into account when giving your response. Some new options have been introduced, and the points allocations for some existing options have been altered. A copy of the Natural England information note describing these changes is enclosed for information.

The second scenario, called 'split lists', assumes that you have to obtain a proportion of the points in your new agreement from a list of 'High Environmental Value' (HEV) options. The proportion is not specified at this time, but we would like to investigate two alternative approaches with you. Approach (a) assumes that you obtain as many points as possible from the list of HEV options. Approach (b) assumes that you only include the amount of HEV options that can be readily accommodated into your farming operation without major impacts on costs or convenience.

The third scenario, called 'option bundles', assumes that you have to obtain a proportion of the points from a 'bundle' of options related to a particular environmental theme, which could be concerned with farmland birds, farmland wildlife, soil and water, landscape and historic features, or climate change. You can choose which bundle you would work with, from the list available, but the interviewer will give you guidance as to which bundles would be most appropriate for your farm. As with the split list scenario, the proportion is not specified, but we would like to investigate the same two alternative approaches with you.

#### *Guidance on option choice*

Natural England has mapped the country in terms of 'priority areas' for the different environmental themes. The surveyor will tell you whether your farm is in one or more priority areas, and which ones, and identify the options that are considered to be most beneficial in your area. Please bear these lists in mind when you consider your option choice. The more you choose from this list, the higher the environmental benefit of your agreement is likely to be.

## Completing the dummy application forms

### *Scenario 1: Free choice, as at January 2013*

Under this scenario, there is no restriction on your choice of options, but please consider including the options identified as being particularly beneficial on your farm. You will need to take into account the changes that will be made to the scheme from January 2013 onwards when thinking about how you will reach your points target.

Firstly, the surveyor will work out your points target. Then you can decide which options you would like to include. Finally, decide how much of each option you will include in order to achieve or exceed your points target. You may wish to consider delivering options slightly in excess of your points target to make sure that there is some margin for error.

Then the surveyor will ask: "if you had to apply for an agreement with these changes in place, would you still submit an application?"

### *Scenario 2. Split list.*

Under this scenario, assume that you have to gain a certain proportion of points from the list of High Environmental Value (HEV) options.

Approach (a): Firstly, please decide which options you could include from the HEV list and how much of each you would include if you were trying to maximise the proportion of points from this list, irrespective of any issues there may be with your farming operations. Please consider including the options identified as being particularly beneficial on your farm, though you don't have to do this.

Then the surveyor will want to know: "if you had to follow approach (a), would you still be prepared to submit an application?"

Approach (b): Secondly, decide which options you would include from the list of HEV options to fit in well with your farming operation and environmental objectives, excluding any that you are not really happy with.

For any options you don't want to adopt, please give reasons.

Again, the surveyor will ask: "if you had to follow approach (b), would you still be prepared to submit an application?"

### *Scenario 3 Option bundles*

Under this scenario, you would have to gain a certain proportion of points from the list of options in your chosen bundle. When choosing the bundle, please consider choosing one that is linked to priority areas that include the location of your farm.

Approach (a): Firstly, please decide which options you could include from this list and how much of each you would include if you were trying to maximise the proportion of points from this list, irrespective of any issues there may be with your farming operations. Please consider including the options identified as being particularly beneficial on your farm, though you don't have to do this.

Answer the question "if you had to follow approach (a), would you still be prepared to submit an application?"

Approach (b): Secondly, decide which options you would include from the list of HEV options to fit in well with your farming operation and environmental objectives, excluding any that you are not really happy with.

For any options you don't want to adopt, please give reasons.

And again: “if you had to follow approach (b), would you still be prepared to submit an application?”

*Farmland bird bundle*

If the farmland bird bundle is chosen, you are asked to include options from each of three categories ‘in-field nesting habitat’, ‘winter/early spring seed food’ and ‘insect-rich foraging habitats’, with minimum amounts as follows:

*In-field nesting habitat:* 20 skylark plots in winter cereals (EF8), a 1 ha fallow plot (EF13) or 1 ha of extended overwintered stubbles (EF22)

*Seed food during the winter and early spring:* 2 ha of wild bird seed mixture (EF2) or 5 ha of weedy overwintered stubbles (EF22 / EG4) or a combination of the two.

*Insect-rich foraging habitats:* 1 ha made up of one or more of the following options: unharvested or unfertilised conservation headlands (EF9, EF10), reduced-herbicide cereal crop (EF15) , undersown spring cereals (EG1) ,cultivated margins (EF11), nectar flower mixtures (EF4).

Due to these restrictions it may not be possible to follow both approaches (a) and (b) described above, but if you can do so, please do.

**Satisfaction scores**

Finally, please answer the following questions.

*For Scenario 1:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

*For Scenario 2:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

*For Scenario 3:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

Thank you very much for your help with this survey.

## Appendix 2: Options included in split list and bundles

### Split list

| Code | Boundary, rotational and traditional farm buildings options | Split list allocation |
|---|---|---|
| EB1 | Hedgerow management (on both sides of hedge) | Standard |
| EB2 | Hedgerow management (on one side of hedge) | Standard |
| EB3 | Enhanced hedgerow management | High Value |
| EB4 | Stone faced hedge bank management on both sides | Standard |
| EB5 | Stone faced hedge bank management on one side | Standard |
| EB6 | Ditch management | High Value |
| EB7 | Half ditch management | High Value |
| EB8 | Combined hedge and ditch management | Standard |
| EB9 | Combined hedge and ditch management (based on EB2) | Standard |
| EB10 | Combined hedge and ditch management (based on EB3) | High Value |
| EB11 | Stone wall protection and maintenance | Standard |
| EB12 | Earth bank management (on both sides) | Standard |
| EB13 | Earth bank management (on one side) | Standard |
| EB14 | NEW lowland version of UB14 - Hedgerow Restoration | High Value |
| EC1 | Protection of in-field trees (arable) | High Value |
| EC2 | Protection of in-field trees (grassland) | High Value |
| EC3 | Maintenance of woodland fences | High Value |
| EC4 | Management of woodland edges | High Value |
| EC23 | Establishment of hedgerow trees by tagging | High Value |
| EC24 | Hedgerow tree buffer strips on cultivated land | High Value |
| EC25 | Hedgerow tree buffer strips on grassland | High Value |
| ED1 | Maintenance of traditional farm buildings | Standard |
| ED2 | Take archaeological features out of cultivation | High Value |
| ED3 | Low depth, non-inversion cultivation on archaeological features | High Value |
| ED4 | Management of scrub on archaeological features | High Value |
| ED5 | Management of archaeological features on grassland | High Value |
| EE1 | 2m buffer strips on cultivated land | Standard |
| EE2 | 4m buffer strips on cultivated land | Standard |
| EE3 | 6m buffer strips on cultivated land | Standard |
| EE4 | 2m buffer strips on intensive grassland | Standard |
| EE5 | 4m buffer strips on intensive grassland | Standard |
| EE6 | 6m buffer strips on intensive grassland | Standard |
| EE7 | Buffering in-field ponds in improved grassland | High Value |
| EE8 | Buffering in-field ponds in arable land | High Value |
| EE9 | 6m buffer strips on cultivated land next to a watercourse | High Value |
| EE10 | 6m buffer strips on intensive grass next to a watercourse | High Value |
| EE12 | NEW supplement for adding wildflowers to EE1 - EE3, EE9 & EJ9 | High Value |
| EF1 | Field corner management | Standard |
| EF2 | Wild bird seed mixture | High Value |

| Code | Boundary, rotational and traditional farm buildings options | Split list allocation |
|---|---|---|
| EF4 | Nectar Flower mixture | High Value |
| EF6 | Over-wintered stubbles | Standard |
| EF7 | Beetle banks | High Value |
| EF8 | Skylark plots | High Value |
| EF9 | Unfertilised cereal headland within arable fields | High Value |
| EF10 | Unharvested cereal headland within arable fields | High Value |
| EF11 | Uncropped, cultivated margins for rare plants-arable | High Value |
| EF13 | Uncropped cultivated area for birds - arable | High Value |
| EF15 | Reduced herbicide cereal preceding over-winter stubble | High Value |
| EF22 | Extended overwintered stubbles | High Value |
| EF23 | NEW Supplementary Feeding for Farmland Birds | High Value |
| EG1 | Under sown spring cereals | High Value |
| EG4 | Cereals for whole crop followed by over-winter stubbles | High Value |
| EJ2 | Management of maize crops to reduce soil erosion | High Value |
| EJ5 | In-field grass areas | High Value |
| EJ9 | 12m buffer strips for watercourses on cultivated land | High Value |
| EJ10 | Enhanced management of maize to reduce erosion and run-off | High Value |
| EJ11 | Maintenance of watercourse fencing | High Value |
| EJ13 | Winter cover crops | High Value |
| EK1 | Take field corners out of management: outside SDA & ML | High Value |
| EK2 | Permanent grass with low inputs: outside SDA & ML | Standard |
| EK3 | Permanent grass with very low inputs: outside SDA & ML | Standard |
| EK4 | Manage rush pastures: outside SDA & ML | High Value |
| EK5 | Mixed stocking | Standard |
| EK20 | NEW Ryegrass seed-set as winter/spring food for birds | High Value |
| EK21 | NEW Legume- and herb-rich swards | High Value |
| EL1 | Field corner management: SDA land | High Value |
| EL2 | Permanent grassland with low inputs: SDA land | Standard |
| EL3 | Permanent grassland with very low inputs: SDA land | High Value |
| EL4 | Manage rush pastures: SDA land & ML parcels < 15ha | High Value |
| EL5 | Enclosed rough grazing: SDA land & ML parcels < 15ha | High Value |
| EL6 | Moorland and rough grazing: ML land only | High Value |
| UB4 | Stone-faced hedgebank management (both sides) on/above ML | Standard |
| UB5 | Stone-faced hedgebank management (one side) on/above ML | Standard |
| UB11 | Stone wall protection & maintenance on/above the ML | Standard |
| UB12 | Earth bank management (both sides) on/above the ML | Standard |
| UB13 | Earth bank management (one side) on/above the ML | Standard |
| UB15 | Stone-faced hedgebank restoration | High Value |
| UB16 | Earth bank restoration | High Value |
| UB17 | Stone wall restoration | High Value |
| UC5 | Sheep fencing around small woodlands | High Value |
| UC22 | Woodland livestock exclusion | High Value |
| UD12 | Maintenance of remote traditional farm buildings | Standard |

| Code | Boundary, rotational and traditional farm buildings options | Split list allocation |
|---|---|---|
| UD13 | Maintaining visibility of archaeological features on moorland | High Value |
| UJ3 | Post and wire fencing along watercourses | High Value |
| UJ12 | Winter stock removal next to streams, rivers and lakes | High Value |
| UL17 | No supplementary feeding on moorland | High Value |
| UL18 | Cattle grazing on upland grassland and moorland | High Value |
| UL20 | Haymaking | Standard |
| UL21 | No cutting strip within meadows | High Value |
| UL22 | Management of enclosed rough grazing for birds | High Value |
| UL23 | Management of upland grassland for birds | High Value |

## Option Bundles

| Sub-theme | Option code | Option description |
|---|---|---|
| **Lowland Farmland Birds Bundle** | | |
| In-field nesting habitat | EF8/OF8 | Skylark plots |
| | EF13/OF13 | Un-cropped cultivated areas for ground nesting birds on arable land |
| | EF22 | Extended overwintered stubbles |
| Overwinter seed food | EF2/OF2 | Wild bird seed mixture |
| | EF22 | Extended overwintered stubbles |
| | EF23 | Supplementary food in winter for farmland birds |
| | EG4/OG3 | Cereals for whole crop silage followed by overwintered stubbles |
| | EK20/OEK20 | Rye Grass Seed-Set |
| Insect-rich foraging habitats | EF4/OF4 | Nectar flower mixture |
| | EF9 | Unfertilised cereal headlands within arable fields |
| | EF10 | Un-harvested cereal headlands within arable fields |
| | EF11/OF11 | Un-cropped cultivated margins for rare plants on arable land |
| | EF15 | Reduced herbicide cereal crops followed by overwintered stubbles |
| | EG1/OG1 | Undersown spring cereals |
| | | |
| **Farm Wildlife Bundle - Lowland and outside SDA** | | |
| Lowland Water voles, dragonflies, newts and toads | EB6/OB6 | Ditch management |
| | EB7/OB7 | Half ditch management |
| | EE7/OE7 | Buffering in-field ponds in improved permanent grassland |
| | EE8/OE8 | Buffering in-field ponds in arable land |
| | EJ9/OJ9 | 12m buffer strips for watercourses on cultivated land |
| | EJ11/OJ11 | Maintenance of watercourse fencing |
| Lowland Arable plants | EF9 | Unfertilised cereal headlands within arable fields |
| | EF10 | Un-harvested cereal headlands within arable fields |
| | EF11/OF11 | Un-cropped cultivated margins for rare plants on arable land |
| | EF13/OF13 | Un-cropped cultivated areas for ground nesting birds on arable land |
| | EF15 | Reduced herbicide cereal crops followed by overwintered stubbles |
| Lowland Bats and dormice | EB3/OB3 | Enhanced hedgerow management |
| | EB14/OB14 | Hedgerow Restoration (new - extension of UB14 to lowlands) |
| | EC3/OC3 | Maintenance of woodland fences |
| | EC4/OC4 | Management of woodland edges |
| | EC23/OC23 | Establishment of hedgerow trees by tagging |
| | EC24/OC24 | Hedgerow tree buffer strips on cultivated land |
| | EC25/OC25 | Hedgerow tree buffer strips on grassland |
| Butterflies, bees & vulnerable grassland | EB3/OB3 | Enhanced hedgerow management |
| | EC4/OC4 | Management of woodland edges |
| | EE12/OE12 | Supplement to add wildflowers to field corners & buffer strips |
| | EF4/OF4 | Nectar flower mixture |
| | EK20/OEK20 | Rye Grass seed set |
| | EK21/OK21 | Legume & Herb Rich Swards |

| Sub-theme | Option code | Option description |
|---|---|---|
| **Farm Wildlife Bundle – Upland (SDA)** | | |
| Upland Moorland | EL6 | Unenclosed moorland rough grazing |
| | UL17/UOL17 | No supplementary feeding on moorland |
| | UL18/UOL18 | Cattle grazing on upland grassland and moorland |
| | UL22/UOL22 | Management of enclosed rough grazing for birds |
| Upland Moorland edge | EL6 | Unenclosed moorland rough grazing |
| | UL18/UOL18 | Cattle grazing on upland grassland and moorland |
| | UL22/UOL22 | Management of enclosed rough grazing for birds |
| Upland Hay meadows & and in-bye grassland | EK21/OK21 | Legume & Herb Rich Swards (new) |
| | EL3/OL3 | Permanent grassland with very low inputs in SDAs |
| | UL21/UOL21 | No cutting strip within meadows |
| | UL23/UOL23 | Management of upland grassland for birds |
| Upland Small native woodlands and scrub | EC3/OC3 | Maintenance of woodland fences |
| | EC4/OC4 | Management of woodland edges |
| | UC5/UOC5 | Sheep fencing around small woodlands |
| | UC22/UOC22 | Woodland livestock exclusion |
| | | |
| **Landscape & Historic Environment Bundle** | | |
| Lowland & Upland Archaeology under cultivation | ED2/OD2 | Take out of cultivation archaeological features that are currently on cultivated land |
| | ED3/OD3 | Reduced depth, non-inversion cultivation on archaeological features (minimum till) |
| Lowland & Upland Archaeology under grass | ED4/OD4 | Management of scrub on archaeological features |
| | ED5/OD5 | Management of archaeological features on grassland |
| | UD13/UOD13 | Maintaining the visibility of archaeological features on moorland |
| Lowland Field Boundaries | EB3/OB3 | Enhanced hedgerow management |
| | EB6/OB6 | Ditch management |
| | EB7/OB7 | Half Ditch management |
| | EB10/OB10 | Combined Hedge and Ditch management (based on EB3) |
| | EB14/EOB14 | Hedgerow restoration (new - extension of UB 14 to lowlands) |
| Upland Traditional Field Boundaries | EB14/EOB14 | Hedgerow restoration (new - extension of UB14 to lowlands) |
| | UB15/UOB15 | Stone faced hedgebank restoration |
| | UB16/UOB16 | Earth bank restoration |
| | UB17/UOB17 | Stone wall restoration |
| Lowland & Upland Woodlands & Trees | EC1/OC1 | Protection of infield Trees on arable land |
| | EC2/OC2 | Protection of infield Trees on grassland |
| | EC3/OC3 | Maintenance of Woodland Fences |
| | EC4/OC4 | Management of Woodland Edges |
| | EC23/OC23 | Establishment of Hedgerow Trees Tagging |
| | EC24/OC24 | Hedgerow Tree Buffer strips on Cultivated Land |
| | EC25/OC25 | Hedgerow Tree Buffer strips on Grassland |
| | UC5/UOC5 | Sheep fencing around small woodlands |
| | UC22/UOC22 | Woodland livestock exclusion |
| | | |

| Sub-theme | Option code | Option description |
|---|---|---|
| **Climate Change Mitigation Bundle** | | |
| Climate Change | EB3/OB3 | Enhanced Hedgerow Management |
| | EB10/OB10 | Combined Hedge & Ditch Management |
| | EB14/OB14 | Hedgerow restoration (new - extension of UB14 to lowlands) |
| | EC23/OC23 | Establishment of hedgerow trees by tagging |
| | ED3/OD3 | Low depth, non-inversion cultivation on archaeo features |
| | EG1/OG1 | Under sown spring cereals |
| | EJ2/OJ2 | Management of maize crops to reduce soil erosion |
| | EJ10 | Enhanced mgmnt of maize to reduce erosion and run-off |
| | EJ13/OJ13 | Winter cover crops |
| | EK20/OEK20 | Rye Grass Seed-Set |
| | EK21/OK21 | Legume & Herb Rich Swards (new) |
| | UC5/UOC5 | Sheep fencing around small woodlands |
| | | |
| **Cleaner Water and Healthier Soil Bundle** | | |
| Tackle the Source - Lowlands | EJ2/OJ2 | Management of maize crops to reduce soil erosion |
| | EJ10 | Enhanced management of maize crops to reduce soil erosion and runoff |
| | EJ13/OJ13 | Winter cover crops |
| Tackle the Source - Uplands | EL5/OL5 | Enclosed rough grazing |
| | EL6 | Unenclosed moorland rough grazing |
| | UC22/UOC22 | Woodland livestock exclusion |
| | UL17/UOL17 | No supplementary feeding on moorland |
| Slow the Pathway - Lowlands | EB14/OB14 | Hedgerow Restoration (new - extension of UB14 to lowlands) |
| | EF7 / OF7 | Beetle banks |
| | EJ5/OJ5 | In field grass areas to prevent soil erosion and runoff |
| | EK1/OK1 | Take field corners out of management |
| | EK4/OK4 | Management of rush pastures |
| Slow the Pathway - Uplands | EB14/EOB14 | Hedgerow restoration (new - extension of UB14 to lowlands) |
| | EJ5/OJ5 | In field grass areas to prevent soil erosion and runoff |
| | EL1/OL0 | Take field corners out of management in SDAs |
| | EL1/OL1 | Take field corners out of management in SDAs |
| Protect the Receptor - Lowlands | EE9/OE9 | 6m buffer strip on cultivated land next to a watercourse |
| | EE10/ OE10 | 6m buffer strip on intensive grassland next to a watercourse |
| | EJ9/OJ9 | 12m buffer strips for watercourses on cultivated land |
| | EJ11/OJ11 | Maintenance of watercourse fencing |
| Protect the Receptor - Uplands | EE9/OE9 | 6m buffer strip on cultivated land next to a watercourse |
| | EE10/OE10 | 6m buffer strip on intensive grassland next to a watercourse |
| | EJ11/OJ11 | Maintenance of watercourse fencing |
| | EL3/OL3 | Permanent grassland with very low inputs in SDAs |
| | EL4/OL4 | Management of rush pastures in SDAs |
| | UJ3/UOJ3 | Post and wire fencing along watercourses |
| | UJ12/UOJ12 | Winter livestock removal next to streams, rivers and lakes |

## Matching of options within sub-themes for water to priority areas

| ELS Code | Option | Surface-water priority areas | Ground-water priority areas | Shellfish & bathing water |
|---|---|---|---|---|
| **Tackle the Source** | | | | |
| EJ13/OJ13 | Winter cover crops | X | X | |
| EJ10 | Enhanced management of maize crops to reduce soil erosion and run-off | X | | |
| EJ2/OJ2 | Management of maize crops to reduce soil erosion | X | | |
| EG1/OG1 | Undersown spring cereals | X | | |
| **Slow the Pathway** | | | | |
| EJ5/OJ5 | In-field grass areas to prevent erosion and run-off | X | | |
| EF1/OF1 | Management of field corners | X | | |
| EK1/OK1 | Take field corners out of management | X | | |
| EK2/OK2 | Permanent grassland with low inputs.<br>*N.B. Can also be used to tackle the source and protect the receptor* | | X | |
| EK3/OK3 | Permanent grassland with very low inputs.<br>*N.B. Can also be used to tackle the source and protect the receptor* | | X | |
| EK4/OK4 | Management of rush pastures. *N.B. Can also be used to tackle the source and protect the receptor* | | X | |
| EF7/OF7 | Beetle banks *N.B. Only effective when aligned on the contour to break up long field slopes* | X | | |
| **Protect the Receptor** | | | | |
| EE9/OE9 | 6 m buffer strips on cultivated land next to a watercourse | X | | |
| EE10/OE10 | 6 m buffer strips on intensive grassland next to a watercourse | X | | X |
| EJ9/OJ9 | 12 m buffer strips for watercourses on cultivated land | X | X | |
| EJ11/OJ11 | Maintenance of watercourse fencing | | | X |

## Appendix 3: Interview template

Guidance for interviewers is highlighted in grey.

### Preamble

#### *The purpose of the interview*

We want to find out what your option choices would be under three scenarios which represent possible changes in the way that Entry Level Stewardship (ELS) might operate in the future. To do this, we ask that you assume you are applying for a new agreement and consider how you would meet the points requirement under each of the scenarios described below. In each case, the interviewer will give you guidance as to which options would be appropriate for your farm, but you do not have to follow this guidance if you don't wish to.

The first scenario is similar to the way the scheme operates at the moment, in that there is free choice from the list of options. However, some changes have been made which will come into operation from January 2013, and we would like you to take these into account when giving your response. Some new options have been introduced, and the points allocations for some existing options have been altered.

The second scenario, called 'split lists', assumes that you have to obtain a proportion of the points in your new agreement from a list of 'High Environmental Value' (HEV) options. The proportion is not specified at this time, but we would like to investigate two alternative approaches with you. Approach (a) assumes that you obtain as many points as possible from the list of HEV options. Approach (b) assumes that you only include the amount of HEV options that can be readily accommodated into your farming operation without major impacts on costs or convenience.

The third scenario, called 'option bundles', assumes that you have to obtain a proportion of the points from a 'bundle' of options related to a particular environmental theme, which could be concerned with farmland birds, farmland wildlife, soil and water, landscape and historic features, or climate change. You can choose which bundle you would work with, from the list available, but the interviewer will give you guidance as to which bundles would be most appropriate for your farm. As with the split list scenario, the proportion is not specified, but we would like to investigate the same two alternative approaches with you.

#### *Guidance on option choice*

Natural England has mapped the country in terms of 'priority areas' for the different environmental themes. Your farm is in high priority areas for (*state high priority themes*). The options that have been identified as being most beneficial under these theme(s) are: (*present list(s) of options*). Please bear these lists in mind when you consider your option choice. The more you choose from this list, the higher the environmental benefit of your agreement is likely to be.

Interviewers will be provided with a spreadsheet showing which priority areas the farm falls into for the following themes:

- Farmland Birds
    - *In-field nesting habitat*
    - *Seed food during the winter and early spring*
    - *Insect-rich foraging habitats:*
- Lowland Farmland wildlife
    - *Water voles, dragonflies, newts & toads*
    - *Arable plants*

    - *Bats & dormice*
    - *Butterflies, bees & vulnerable grassland*
- Clean Water & Healthier Soil[5]
    - *Surface water*
    - *Ground water*
    - *Shellfish and bathing waters*
- Landscape and Historic[6]

For the rest, the priority areas are as follows:

- Upland wildlife: all farms with land in SDAs (i.e. eligible for the upland ELS)
- Climate change: all arable and dairy farms

Where the farm falls into more than one high priority area, the farmer is given the choice which bundle he will consider. He/she should be encouraged to choose a bundle relating to one of the priority areas which the farm is in, but he/she can choose a bundle outside the priority areas if he/she wishes. None of the holdings to be visited will fall outside of all priority areas.

**Completing the dummy application forms**

Section 1: Record name, address, telephone number (landline and mobile) and e-mail address if available.

Section 2: Record details of farm enterprise (number 12).

Section 3: Complete Table A, Part 1 (and Part 2 if the agreement includes uplands ELS) and Table B.

Section 4: Complete Annex 1 and Annex 2 for each of the three scenarios. Complete two versions of each Annex for Split List and Option Bundle scenarios, one for Approach (a) and one for Approach (b). NB it is not essential to complete details for each field in Annex 2 (though this can be done if it's helpful); the total points for each option is sufficient.

***Scenario 1: Free choice, as at January 2013***

Under this scenario, there is no restriction on your choice of options, but please consider including the options identified as being particularly beneficial on your farm. You will need to take into account the changes that will be made to the scheme from January 2013 onwards when thinking about how you will reach your points target. (present list of changes).

Firstly, work out your points target. Then decide which options you would like to include. Finally, decide how much of each option you will include in order to achieve or exceed your points target. You may wish to consider delivering options slightly in excess of your points target to make sure that there is some margin for error.

If you had to apply for an agreement with these changes in place, would you still submit an application? (Yes/No)

[5] please note that for soil and water, the mapping criteria are different from the option bundles – please use the file 'els-water-and-soil-options_tcm6-24130' to identify suitable options for these areas. If the farm is in a soil and water priority area, please advise that it's good practice to include options from each of the 'tackle the source', 'slow the pathway' and 'protect the receptor' categories.

[6] Priority areas are Areas of Outstanding Natural Beauty (AONBs), National Parks and Nature Improvement Areas (NIAs)

***Scenario 2. Split list.***

Under this scenario, assume that you have to gain a certain proportion of points from the list of High Environmental Value (HEV) options (present list of HEV options).

Approach (a): Firstly, please decide which options you could include from this list and how much of each you would include if you were trying to maximise the proportion of points from this list, irrespective of any issues there may be with your farming operations. Please consider including the options identified as being particularly beneficial on your farm, though you don't have to do this. (A column 'option possible' is provided in the form to record what could be done in terms of features present etc, e.g. stone wall option can only be done if stone walls are present on the farm, grassland options require presence of the right type of grassland etc.)

If you had to follow approach (a), would you still be prepared to submit an application? (Yes/No)

Approach (b): Secondly, decide which options you would include from the list of HEV options to fit in well with your farming operation and environmental objectives, excluding any that you are not really happy with.

For any options you don't want to adopt, please give reasons (record on free text form)

If you had to follow approach (b), would you still be prepared to submit an application? (Yes/No)

***Scenario 3 Option bundles***

Under this scenario, you would have to gain a certain proportion of points from the list of options in your chosen bundle. (present bundles). When choosing the bundle, please consider choosing one that is linked to priority areas that include the location of your farm.

Approach (a): Firstly, please decide which options you could include from this list and how much of each you would include if you were trying to maximise the proportion of points from this list, irrespective of any issues there may be with your farming operations. Please consider including the options identified as being particularly beneficial on your farm, though you don't have to do this.

If you had to follow approach (a), would you still be prepared to submit an application? (Yes/No)

Approach (b): Secondly, decide which options you would include from the list of HEV options to fit in well with your farming operation and environmental objectives, excluding any that you are not really happy with.

For any options you don't want to adopt, please give reasons (record on free text form)

If you had to follow approach (b), would you still be prepared to submit an application? (Yes/No)

*Farmland bird bundle*

If the farmland bird bundle is chosen, you are asked to include options from each of three categories 'in-field nesting habitat', 'winter/early spring seed food' and 'insect-rich foraging habitats', with minimum amounts **per 100ha** as follows:

*In-field nesting habitat:* 20 skylark plots in winter cereals (EF8), a 1 ha fallow plot (EF13) or 1 ha of extended overwintered stubbles (EF22)

*Seed food during the winter and early spring:* 2 ha of wild bird seed mixture (EF2) or 5 ha of weedy overwintered stubbles (EF22 / EG4) or a combination of the two.

*Insect-rich foraging habitats:* 1 ha made up of one or more of the following options: unharvested or unfertilised conservation headlands (EF9, EF10), reduced-herbicide cereal crop (EF15) , undersown spring cereals (EG1) ,cultivated margins (EF11), nectar flower mixtures (EF4).

Due to these restrictions it may not be possible to follow both approaches (a) and (b) described above, but if you can do so, please do.

**Satisfaction scores**

Finally, please answer the following questions.

*For Scenario 1:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

*For Scenario 2:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

*For Scenario 3:*

How satisfied are you with the application process? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

How satisfied are you with the clarity of the scheme requirements? (Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, Very dissatisfied)

Could you complete this process without advice?

Thank you very much for your help with this survey.

## Appendix 4: Forms completed by surveyors for each interview

### Interview preparation

Fera reference:..... Name of Surveyor:.....

Interviewee:.....

| Option description | Quantity(ha/100m/no) | Current points value | Current points total | 2013 points value | 2013 points total |
|---|---|---|---|---|---|
| FER | | 3 | | 1 | |
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# MAIN QUESTIONNAIRE

## Before interview

*Assemble the following documents:*

*Forms to be filled in:*

- *Main Questionnaire*
- *One copy of Annexes for Jan 2013*
- *Two copies of Annexes for split lists*
- *Two copies of Annexes for bundles*
- *Free text questions*

*Farm specific information:*

- *Cover sheet with farm details*
- *Lists of options for current agreement:*
- *Part 1*
- *Part 2A*
- *Part 2B*
- *FER*
- *Agreement map*

*Generic information:*

- *Interview template*
- *Spreadsheet giving priority area designation(s) for the agreements*
- *Option split lists and bundles*
- *Water and soil options to correspond with priority area maps*
- *Information note on new options and option changes from Jan 2013*
- *Descriptions of new options (for reference).*

## At the interview

*Describe the purpose of the interview and the three scenarios.*

*When you get to the part of the interview concerned with options bundles, show interviewee which priority areas his/her farm is in. Use spreadsheet provided but don't forget to add climate change for lowland arable and dairy farms, and upland wildlife for farms in the SDA. Present list of options identified as most beneficial in these priority areas. Ask interviewee to select a bundle and consider these options when making choices. Please note they don't have to choose a bundle that relates to the one of the priority areas they are in if they would rather choose a different one.*

## Completing the dummy application forms

See below

**Section 1:** *Record name, telephone number (landline and mobile) and e-mail address if available.*

| | |
|---|---|
| Fera reference | |
| Name of surveyor | |
| Name of interviewee | |
| Land line number | |
| Mobile number | |
| e-mail | |
| Farm type (from spreadsheet) | |

NB contact details are in case of any follow-up queries

**Section 2:** *Record details of farm enterprise (part 12).*

12. Details of farm enterprise

Please enter '**1**' in the box below which best describes your primary enterprise and '**2**' in the box which describes your secondary enterprise (if applicable).

| | | | |
|---|---|---|---|
| ☐ Dairy | ☐ Sheep | ☐ Mixed arable/livestock | ☐ Beef |
| ☐ Mixed beef/sheep | ☐ Arable | ☐ Top fruit | ☐ Horticulture |

*Section 3: Complete Table A, Part 1 (and Part 2 if the agreement includes uplands ELS) and Table B.*

## Section 3. Your ELS points target and choice of scheme options

Guidance on completing this section can be found in the ELS Handbook.

**Table A**

**Part 1: Refer to this part if you are applying for ELS without the Uplands strand**

| Your target | Points per unit | Area (ha) | POINTS TARGET |
|---|---|---|---|
| Total area and points target of land, excluding parcels of 15 ha or more above the Moorland Line and ineligible land | 30 per hectare (ha) | | |
| Total area and points target of parcels of 15 ha or more above the Moorland Line, excluding ineligible land | 8 per hectare (ha) | | |

**Total points target on your land**……

**Part 2: Refer to this part if you are applying for Uplands ELS**

| Your target | Points per unit | Area (ha) | POINTS TARGET |
|---|---|---|---|
| Total area and points target of non-LFA land, Disadvantaged land and parcels under 15 ha of Disadvantaged land above the Moorland Line, excluding ineligible land | 30 per hectare (ha) | | |
| Total area and points target of Severely Disadvantaged land, and parcels under 15 ha of Severely Disadvantaged land above the Moorland Line, excluding ineligible land | 62 per hectare (ha) | | |
| Total area and points target of parcels of 15 ha or more of Disadvantaged land above the Moorland Line, excluding ineligible land | 8 per hectare (ha) | | |
| Total area and points target of parcels of 15 ha or more of Severely Disadvantaged land above the Moorland Line, excluding ineligible land | 23 per hectare (ha) | | |

**Total points target on your land**……

You must record the individual options you have chosen by completing Annex 1 and Annex 2 and record your total points in Table B below:

**Section 4:** *Complete Annex 1 and Annex 2 for each of the three scenarios on separate sheets. Complete two versions of each Annex for Split List and Option Bundle scenarios, one for Approach (a) and one for Approach (b). NB it is not essential to complete details for each field in Annex 2 (though this can be done if it's helpful); the total points for each option is sufficient.*

*After completing Annexes 1 and 2 for Scenario 1 (Free choice) ask the following question:*

If you had to apply for an agreement with these changes in place would you still submit an application? Yes: ☐ No: ☐

*After completing Annexes 1 and 2 for Scenario 2 (Split Lists), Approach (a), ask the following question:*

If you had to apply for an agreement with these changes in place would you still submit an application? Yes: ☐ No: ☐

*After completing Annexes 1 and 2 for Scenario 2 (Split Lists), Approach (b), ask the following question:*

If you had to apply for an agreement with these changes in place would you still submit an application? Yes: ☐ No: ☐

*After completing Annexes 1 and 2 for Scenario 3 (Option Bundles), Approach (a), ask the following question:*

If you had to apply for an agreement with these changes in place would you still submit an application? Yes: ☐ No: ☐

*After completing Annexes 1 and 2 for Scenario 3 (Option Bundles), Approach (b), ask the following question:*

If you had to apply for an agreement with these changes in place would you still submit an application? Yes: ☐ No: ☐

*Finally, after completing all the annexes for the three scenarios, ask the following questions.*

*For Scenario 1:*

How satisfied are you with the application process?

Very satisfied ☐ Satisfied ☐ Neither/ nor ☐ Dissatisfied ☐ Very dissatisfied ☐

How satisfied are you with the clarity of the scheme requirements?

Very satisfied ☐ Satisfied ☐ Neither/ nor ☐ Dissatisfied ☐ Very dissatisfied ☐

Could you complete this process without advice? Yes: ☐ No: ☐

*For Scenario 2:*

How satisfied are you with the application process?

| Very satisfied | | Satisfied | | Neither/ nor | | Dissatisfied | | Very dissatisfied | |
|---|---|---|---|---|---|---|---|---|---|

How satisfied are you with the clarity of the scheme requirements?

| Very satisfied | | Satisfied | | Neither/ nor | | Dissatisfied | | Very dissatisfied | |
|---|---|---|---|---|---|---|---|---|---|

Could you complete this process without advice? Yes: ☐ No: ☐

*For Scenario 3:*

How satisfied are you with the application process?

| Very satisfied | | Satisfied | | Neither/ nor | | Dissatisfied | | Very dissatisfied | |
|---|---|---|---|---|---|---|---|---|---|

How satisfied are you with the clarity of the scheme requirements?

| Very satisfied | | Satisfied | | Neither/ nor | | Dissatisfied | | Very dissatisfied | |
|---|---|---|---|---|---|---|---|---|---|

Could you complete this process without advice? Yes: ☐ No: ☐

*Thank the interviewee for their help with this survey and inform them that they will receive a copy of a summary report in due course (early 2013)..*

## Annexes for Free choice, Jan 2013

| | |
|---|---|
| Fera reference | |
| Name of surveyor | |
| Name of interviewee | |

**Annex 1, Jan 2013 Version.** Please record your choice of ELS boundary, rotational and traditional farm buildings options on the table below. Completion of the Farm Environment Record and map and selection of option EA1 is compulsory.

| Code | Description | Points available | Measurement | Your points |
|---|---|---|---|---|
| EA1 | Farm Environment Record (FER) | 1 per ha | ha | |
| EB1 | Hedgerow management for landscape (on both sides of hedge) | 16 per 100m | m | |
| EB2 | Hedgerow management for landscape (on one side of hedge) | 8 per 100m | m | |
| EB3 | Hedgerow management for landscape and wildlife | 42 per 100m | m | |
| EB4 | Stone faced hedge bank management on both sides | 16 per 100m | m | |
| EB5 | Stone faced hedge bank management on one side | 8 per 100m | m | |
| EB6 | Ditch management | 24 per 100m | m | |
| EB7 | Half ditch management | 8 per 100m | m | |
| EB8 | Combined hedge and ditch management (incorporating EB1) | 38 per 100m | m | |
| EB9 | Combined hedge and ditch management (incorporating EB2) | 26 per 100m | m | |
| EB10 | Combined hedge and ditch management (incorporating EB3) | 56 per 100m | m | |
| EB11 | Stone wall protection and maintenance | 15 per 100m | m | |
| EB12 | Earth bank management (on both sides) | 14 per 100m | m | |
| EB13 | Earth bank management (on one side) | 7 per 100m | m | |
| EB14 | Hedgerow restoration | 10 per m | m | |
| EC3 | Maintenance of woodland fences | 4 per 100m | m | |
| EC23 | Establishment of hedgerow trees by tagging | 1 per tree(s) | Tree(s) | |
| ED1 | Maintenance of traditional farm buildings | 2 per m2 | m2 | |
| EF2 | Wild bird seed mixture | 450 per ha | ha | |
| EF4 | Nectar flower mixture | 450 per ha | ha | |
| EF6 | Over-wintered stubbles | 120 per ha | ha | |
| EF8 | Skylark plots | 5 per plot(s) | Plot(s) | |
| EF9 | Cereal headlands for birds | 100 per ha | ha | |
| EF10 | Unharvested cereal headland for birds and rare arable plants | 330 per ha | ha | |
| EF13 | Uncropped cultivated areas for ground-nesting birds - arable | 360 per ha | ha | |
| EF15 | Reduced herbicide cereal crop preceding over-wintered stubble | 195 per ha | ha | |
| EF22 | Extended overwintered stubbles | 410 per ha | ha | |
| EF23 | Supplementary feeding in winter for farmland birds | 630 per tonne | tonne | |
| EG1 | Under sown spring cereals | 200 per ha | ha | |

| Code | Description | Points available | Measurement | Your points |
|---|---|---|---|---|
| EG4 | Cereals for whole crop silage followed by over-wintered stubbles | 230 per ha | ha | |
| EJ2 | Management of maize crops to reduce soil erosion | 18 per ha | ha | |
| EJ10 | Enhanced management of maize crops to reduce erosion and run-off | 94 per ha | ha | |
| EJ11 | Maintenance of watercourse fencing | 4 per 100m | m | |
| EJ13 | Winter cover crops | 65 per ha | ha | |
| EK20 | Ryegrass seed-set as winter/spring food for birds | 80 per ha | ha | |
| EK21 | Legume and herb-rich swards | 200 per ha | ha | |

**The following options can only be chosen if you are applying for Uplands ELS.**

| | | | | |
|---|---|---|---|---|
| UB4 | Stone-faced hedgebank management (both sides) on /above ML | 24 per 100m | m | |
| UB5 | Stone-faced hedgebank management (one side) on/above ML | 12 per 100m | m | |
| UB11 | Stone wall protection and maintenance on/above the moorland line | 32 per 100m | m | |
| UB12 | Earth bank management (both sides) on/above the moorland line | 18 per 100m | m | |
| UB13 | Earth bank management (one side) on/above the moorland line | 9 per 100m | m | |
| UB15 | Stone-faced hedgebank restoration | 55 per m | m | |
| UB16 | Earth bank restoration | 12.5 per m | m | |
| UB17 | Stone bank restoration | 30 per m | m | |
| UC5 | Sheep fencing around small woodlands | 50 per 100m | m | |
| UD12 | Maintenance of remote weatherproof traditional farm buildings | 4 per m2 | m2 | |
| UJ3 | Post and wire fencing along watercourses | 50 per 100m | m | |

| **Total points for Annex 1**<br>Please enter this total in the box at Section 3 table B of this application form | |
|---|---|

**Annex 2, Jan 2013 Version.** Please record your choice of ELS non-rotational field options on the table below. Completion of the Farm Environment record and map and selection of option EA1 is compulsory.

| Code | Description | Points available | Measurement | Your points |
|---|---|---|---|---|
| EC1 | Protection of in-field trees (arable) | 16 per tree | trees | |
| EC2 | Protection of in-field trees (grassland) | 11 per tree | trees | |
| EC4 | Management of woodland edges | 380 per ha | ha | |
| EC24 | Hedgerow tree buffer strips on cultivated land | 400 per ha | ha | |
| EC25 | Hedgerow tree buffer strips on grassland | 400 per ha | ha | |
| ED2 | Take archaeological features out of cultivation | 460 per ha | ha | |
| ED3 | Low depth, non-inversion cultivation on archaeological features | 60 per ha | ha | |
| ED4 | Management of scrub on archaeological features | 120 per ha | ha | |
| ED5 | Management of archaeological features on grassland | 16 per ha | ha | |
| EE1 | 2m buffer strips on cultivated land | 255 per ha | ha | |
| EE2 | 4m buffer strips on cultivated land | 340 per ha | ha | |
| EE3 | 6m buffer strips on cultivated land | 340 per ha | ha | |
| EE4 | 2m buffer strips on intensive grassland | 255 per ha | ha | |
| EE5 | 4m buffer strips on intensive grassland | 340 per ha | ha | |
| EE6 | 6m buffer strips on intensive grassland | 340 per ha | ha | |
| EE7 | Buffering in-field ponds in improved grassland | 400 per ha | ha | |
| EE8 | Buffering in-field ponds in arable land | 400 per ha | ha | |
| EE9 | 6m buffer strips on cultivated land next to a watercourse | 400 per ha | ha | |
| EE10 | 6m buffer strips on intensive grass next to a watercourse | 400 per ha | ha | |
| EE12 | Supplement for adding wildflowers to EE1 - EE3, EE9 & EJ9 | 63 per ha | ha | |
| EF1 | Field corner management | 400 per ha | ha | |
| EF7 | Beetle banks | 580 per ha | ha | |
| EF11 | Uncropped, cultivated margins for rare plants-arable | 400 per ha | ha | |
| EJ5 | In-field grass areas | 454 per ha | ha | |
| EJ9 | 12m buffer strips for watercourses on cultivated land | 400 per ha | ha | |
| EK1 | Take field corners out of mgmnt: outside SDA & ML | 400 per ha | ha | |
| EK2 | Permanent grass with low inputs: outside SDA & ML | 85 per ha | ha | |
| EK3 | Permanent grass with very low inputs: outside SDA & ML | 150 per ha | ha | |

| Code | Description | Points available | Measurement | Your points |
|---|---|---|---|---|
| EK4 | Manage rush pastures: outside SDA & ML | 150 per ha | ha | |
| EK5 | Mixed stocking | 9 per ha | ha | |
| EL1 | Field corner management: SDA land | 100 per ha | ha | |
| EL2 | Permanent grassland with low inputs: SDA land | 35 per ha | ha | |
| EL3 | Permanent grassland with very low inputs: SDA land | 60 per ha | ha | |
| EL4 | Manage rush pastures: SDA land & ML parcels < 15ha | 60 per ha | ha | |
| EL5 | Enclosed rough grazing: SDA land & ML parcels < 15ha | 35 per ha | ha | |
| EL6 | Moorland and rough grazing: ML land only | 5 per ha | ha | |

**The following options can only be chosen if you are applying for Uplands ELS.**

| | | | | |
|---|---|---|---|---|
| UX1 | Moorland commons and shared grazing requirements | 5 per ha | ha | |
| UX2 | Upland grassland and arable requirements | 11 per ha | ha | |
| UX3 | Moorland requirements | 15 per ha | ha | |
| UC22 | Woodland livestock exclusion | 75per ha | ha | |
| UD13 | Maintaining visibility of archaeol features on moorland | 53 per ha | ha | |
| UJ12 | Winter stock removal next to streams, rivers and lakes | 35 per ha | ha | |
| UL17 | No supplementary feeding on moorland | 4 per ha | ha | |
| UL18 | Cattle grazing on upland grassland and moorland | 30 per ha | ha | |
| UL20 | Haymaking | 60 per ha | ha | |
| UL21 | No cutting strip within meadows | 250 per ha | ha | |
| UL22 | Management of enclosed rough grazing for birds | 35 per ha | ha | |
| UL23 | Management of upland grassland for birds | 37 per ha | ha | |

| **Total Points for Annex 2**<br>Please enter this total in the box at section 3 table B of this application form | |
|---|---|

| **Total ELS points target on your land**… | |
|---|---|

| **Total UELS points target on your land (if applicable)** | |
|---|---|

**Table B**

| **ELS Options Summary** | Points |
|---|---|
| Total points for Annex 1 | |
| Total points for Annex 2 | |
| **Total points**<br>(Your total points must be equal to or more than your ELS or Uplands ELS points target above.) | |

If you want to make sure that there is some margin for error, you may wish to consider delivering options slightly in excess of your target.

## Annexes for Split Lists

| | |
|---|---|
| Fera reference | |
| Name of surveyor | |
| Name of interviewee | |

Approach (a) or (b)? (tick one)

| | | | |
|---|---|---|---|
| Approach (a) | | Approach (b) | |

**Annex 1, Split List version.** Please record your choice of ELS boundary, rotational and traditional farm buildings options on the table below. *Options that have changed are in italics*. **New options are in bold.** High value options are highlighted in grey in the 'code' column.

| Code | Description | Points available | Option possible? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| *EA1* | *Farm Environment Record (FER)* | *1 per ha* | | *ha* | | |
| *EB1* | *Hedgerow management for landscape (on both sides of hedge)* | *16 per 100m* | | *m* | | |
| *EB2* | *Hedgerow management for landscape (on one side of hedge)* | *8 per 100m* | | *m* | | |
| *EB3* | *Hedgerow management for landscape and wildlife* | *42 per 100m* | | *m* | | |
| EB4 | Stone faced hedge bank management on both sides | 16 per 100m | | m | | |
| EB5 | Stone faced hedge bank management on one side | 8 per 100m | | m | | |
| EB6 | Ditch management | 24 per 100m | | m | | |
| EB7 | Half ditch management | 8 per 100m | | m | | |
| EB8 | Combined hedge and ditch management (incorporating EB1) | 38 per 100m | | m | | |
| EB9 | Combined hedge and ditch management (incorporating EB2) | 26 per 100m | | m | | |
| EB10 | Combined hedge and ditch management (incorporating EB3) | 56 per 100m | | m | | |
| *EB11* | *Stone wall protection and maintenance* | *15 per 100m* | | *m* | | |
| EB12 | Earth bank management (both sides) | 14 per 100m | | m | | |
| EB13 | Earth bank management (one side) | 7 per 100m | | m | | |
| **EB14** | **Hedgerow restoration** | **10 per m** | | **m** | | |
| EC3 | Maintenance of woodland fences | 4 per 100m | | m | | |
| *EC23* | *Establishment of hedgerow trees by tagging* | *1 per tree(s)* | | *Tree(s)* | | |
| ED1 | Maintenance of traditional farm buildings | 2 per m2 | | m2 | | |
| EF2 | Wild bird seed mixture | 450 per ha | | ha | | |
| *EF4* | *Nectar flower mixture* | *450 per ha* | | *ha* | | |
| EF6 | Over-wintered stubbles | 120 per ha | | ha | | |
| EF8 | Skylark plots | 5 per plot(s) | | Plot(s) | | |
| *EF9* | *Cereal headlands for birds* | *100 per ha* | | *ha* | | |

| Code | Description | Points available | Option possible? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| *EF10* | *Unharvested cereal headland for birds and rare arable plants* | *330 per ha* | | *ha* | | |
| EF13 | Uncropped cultivated areas for ground-nesting birds - arable | 360 per ha | | ha | | |
| EF15 | Reduced herbicide cereal crop preceding over-wintered stubble | 195 per ha | | ha | | |
| EF22 | Extended overwintered stubbles | 410 per ha | | ha | | |
| **EF23** | **Supplementary feeding in winter for farmland birds** | **630 per tonne** | | **tonne** | | |
| EG1 | Under sown spring cereals | 200 per ha | | ha | | |
| *EG4* | *Cereals for whole crop silage followed by over-wintered stubbles* | *230 per ha* | | *ha* | | |
| EJ2 | Management of maize crops to reduce soil erosion | 18 per ha | | ha | | |
| EJ10 | Enhanced management of maize crops to reduce erosion and run-off | 94 per ha | | ha | | |
| EJ11 | Maintenance of watercourse fencing | 4 per 100m | | m | | |
| EJ13 | Winter cover crops | 65 per ha | | ha | | |
| **EK20** | **Ryegrass seed-set as winter/spring food for birds** | **80 per ha** | | **ha** | | |
| **EK21** | **Legume and herb-rich swards** | **200 per ha** | | **ha** | | |
| | The following options can only be chosen if you are applying for Uplands ELS | | | | | |
| UB4 | Stone-faced hedgebank management (both sides) on/ above ML | 24 per 100m | | m | | |
| UB5 | Stone-faced hedgebank management (one side) on/ above ML | 12 per 100m | | m | | |
| UB11 | Stone wall protection and maintenance on/above ML | 32 per 100m | | m | | |
| UB12 | Earth bank management (both sides) on/above the moorland line | 18 per 100m | | m | | |
| UB13 | Earth bank management (one side) on/above the moorland line | 9 per 100m | | m | | |
| UB15 | Stone-faced hedgebank restoration | 55 per m | | m | | |
| UB16 | Earth bank restoration | 12.5 per m | | m | | |
| UB17 | Stone bank restoration | 30 per m | | m | | |
| UC5 | Sheep fencing around small woodlands | 50 per 100m | | m | | |

| Code | Description | Points available | Option possible? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| UD12 | Maintenance of remote weatherproof trad. farm buildings | 4 per m2 | | m2 | | |
| UJ3 | Post and wire fencing along watercourses | 50 per 100m | | m | | |

| | |
|---|---|
| **Total Points for Annex 1 Low value options** | |
| **Total Points for Annex 1 High value options**<br>Please enter this total in the box at section 3 table B of this application form | |
| **Total Points for Annex 1**<br>Please enter this total in the box at section 3 table B of this application form | |

**Annex 2, Split List version.** Please record your choice of ELS non-rotational field options on the table below. Completion of the Farm Environment record and map and selection of option EA1 is compulsory. **High value options are highlighted in grey.**

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| EC1 | Protection of in-field trees (arable) | 16 per tree | | trees | | |
| EC2 | Protection of in-field trees (grassland) | 11 per tree | | trees | | |
| EC4 | Management of woodland edges | 380 per ha | | ha | | |
| EC24 | Hedgerow tree buffer strips on cultivated land | 400 per ha | | ha | | |
| EC25 | Hedgerow tree buffer strips on grassland | 400 per ha | | ha | | |
| ED2 | Take archaeological features out of cultivation | 460 per ha | | ha | | |
| ED3 | Low depth, non-inversion cultivation on archaeological features | 60 per ha | | ha | | |
| ED4 | Management of scrub on archaeological features | 120 per ha | | ha | | |
| ED5 | Management of archaeological features on grassland | 16 per ha | | ha | | |
| *EE1* | *2m buffer strips on cultivated land* | *255 per ha* | | *ha* | | |
| *EE2* | *4m buffer strips on cultivated land* | *340 per ha* | | *ha* | | |
| *EE3* | *6m buffer strips on cultivated land* | *340 per ha* | | *ha* | | |
| *EE4* | *2m buffer strips on intensive grassland* | *255 per ha* | | *ha* | | |
| *EE5* | *4m buffer strips on intensive grassland* | *340 per ha* | | *ha* | | |
| *EE6* | *6m buffer strips on intensive grassland* | *340 per ha* | | *ha* | | |
| EE7 | Buffering in-field ponds in improved grassland | 400 per ha | | ha | | |
| EE8 | Buffering in-field ponds in arable land | 400 per ha | | ha | | |
| *EE9* | *6m buffer strips on cultivated land next to a watercourse* | *400 per ha* | | *ha* | | |
| *EE10* | *6m buffer strips on intensive grass next to a watercourse* | *400 per ha* | | *ha* | | |
| **EE12** | **supplement for adding wildflowers to EE1 - EE3, EE9 & EJ9** | **63 per ha** | | **ha** | | |
| EF1 | Field corner management | 400 per ha | | ha | | |
| EF7 | Beetle banks | 580 per ha | | ha | | |

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| EF11 | Uncropped, cultivated margins for rare plants-arable | 400 per ha | | ha | | |
| *EJ5* | *In-field grass areas* | *454 per ha* | | *ha* | | |
| EJ9 | 12m buffer strips for watercourses on cultivated land | 400 per ha | | ha | | |
| EK1 | Take field corners out of mgmnt: outside SDA & ML | 400 per ha | | ha | | |
| EK2 | Permanent grass with low inputs: outside SDA & ML | 85 per ha | | ha | | |
| EK3 | Permanent grass with very low inputs: outside SDA & ML | 150 per ha | | ha | | |
| EK4 | Manage rush pastures: outside SDA & ML | 150 per ha | | ha | | |
| EK5 | Mixed stocking | 9 per ha | | ha | | |
| EL1 | Field corner management: SDA land | 100 per ha | | ha | | |
| EL2 | Permanent grassland with low inputs: SDA land | 35 per ha | | ha | | |
| EL3 | Permanent grassland with very low inputs: SDA land | 60 per ha | | ha | | |
| EL4 | Manage rush pastures: SDA land & ML parcels < 15ha | 60 per ha | | ha | | |
| EL5 | Enclosed rough grazing: SDA land & ML parcels < 15ha | 35 per ha | | ha | | |
| EL6 | Moorland and rough grazing: ML land only | 5 per ha | | ha | | |
| | The following options can only be chosen if you are applying for Uplands ELS | | | | | |
| UX1 | Moorland commons and shared grazing requirements | 5 per ha | | ha | | |
| UX2 | Upland grassland and arable requirements | 11 per ha | | ha | | |
| UX3 | Moorland requirements | 15 per ha | | ha | | |
| UC22 | Woodland livestock exclusion | 75 per ha | | ha | | |
| UD13 | Maintaining visibility of archaeological features on moorland | 53 per ha | | ha | | |
| UJ12 | Winter stock removal next to streams, rivers and lakes | 35 per ha | | ha | | |
| UL17 | No supplementary feeding on moorland | 4 per ha | | ha | | |
| UL18 | Cattle grazing on upland grassland and moorland | 30 per ha | | ha | | |

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Your points (low value options) | Your points (high value options) |
|---|---|---|---|---|---|---|
| UL20 | Haymaking | 60 per ha | | ha | | |
| UL21 | No cutting strip within meadows | 250 per ha | | ha | | |
| UL22 | Management of enclosed rough grazing for birds | 35 per ha | | ha | | |
| UL23 | Management of upland grassland for birds | 37 per ha | | ha | | |

| | |
|---|---|
| **Total Points for Annex 2 Low value options** | |
| **Total Points for Annex 2 High value options**<br>Please enter this total in the box at section 3 table B of this application form | |
| **Total Points for Annex 2**<br>Please enter this total in the box at section 3 table B of this application form | |

| | |
|---|---|
| **Total ELS points target on your land**… | |

| | |
|---|---|
| **Total UELS points target on your land (if applicable)** | |

| **ELS Options Summary** | Points |
|---|---|
| Total points for Annex 1 | |
| Total points for Annex 2 | |

**Total points**

(Your total points must be equal to or more than your ELS or Uplands ELS points target above.)

If you want to make sure that there is some margin for error, you may wish to consider delivering options slightly in excess of your target.

| | |
|---|---|
| **Total Points for Annex 1 High value options** | |
| **Total Points for Annex 2 High value options** | |
| **Total High value option points** | |
| **Total High value option points as a % of total target points** | |

**Annexes for Option bundles**

| | |
|---|---|
| Fera reference | |
| Name of surveyor | |
| Name of interviewee | |

| Bundles available (please tick) | lowland | Upland |
|---|---|---|
| Soil & Water | | |
| Farmland Birds | | |
| Water voles, dragonflies, newts, toads | | |
| Arable Plants | | |
| Bats & dormice | | |
| Butterflies, bees, vulnerable grassland | | |
| Landscape & Historic | | |
| Climate change | | |
| Upland Wildlife | | |

| | |
|---|---|
| Bundle selected | |

Approach (a) or (b)? (tick one)

| | | | |
|---|---|---|---|
| Approach (a) | | Approach (b) | |

**Annex 1, Option bundles.** Please record your choice of ELS boundary, rotational and traditional farm buildings options on the table below. Completion of the Farm Environment Record and map and selection of option EA1 is compulsory. *Options that have changed are in italics*. **New options are in bold.**

| Code | Description | Points available | Option possible? (Y/N) | Measurement | Points – non bundle options | Points – from chosen bundle |
|---|---|---|---|---|---|---|
| *EA1* | *Farm Environment Record (FER)* | *1 per ha* | | *ha* | | |
| *EB1* | *Hedgerow management for landscape (on both sides of hedge)* | *16 per 100m* | | *m* | | |
| *EB2* | *Hedgerow management for landscape (on one side of hedge)* | *8 per 100m* | | *m* | | |
| *EB3* | *Hedgerow management for landscape and wildlife* | *42 per 100m* | | *m* | | |
| EB4 | Stone faced hedge bank management on both sides | 16 per 100m | | m | | |
| EB5 | Stone faced hedge bank management on one side | 8 per 100m | | m | | |
| EB6 | Ditch management | 24 per 100m | | m | | |
| EB7 | Half ditch management | 8 per 100m | | m | | |
| EB8 | Combined hedge and ditch management (incorporating EB1) | 38 per 100m | | m | | |
| EB9 | Combined hedge and ditch management (incorporating EB2) | 26 per 100m | | m | | |
| EB10 | Combined hedge and ditch management (incorporating EB3) | 56 per 100m | | m | | |
| *EB11* | *Stone wall protection and maintenance* | *15 per 100m* | | *m* | | |
| EB12 | Earth bank management (on both sides) | 14 per 100m | | m | | |
| EB13 | Earth bank management (on one side) | 7 per 100m | | m | | |
| **EB14** | **Hedgerow restoration** | **10 per m** | | **m** | | |
| EC3 | Maintenance of woodland fences | 4 per 100m | | m | | |
| *EC23* | *Establishment of hedgerow trees by tagging* | *1 per tree(s)* | | *Tree(s)* | | |
| ED1 | Maintenance of traditional farm buildings | 2 per m2 | | m2 | | |
| EF2 | Wild bird seed mixture | 450 per ha | | ha | | |
| *EF4* | *Nectar flower mixture* | *450 per ha* | | *ha* | | |
| EF6 | Over-wintered stubbles | 120 per ha | | ha | | |
| EF8 | Skylark plots | 5 per plot(s) | | Plot(s) | | |
| *EF9* | *Cereal headlands for birds* | *100 per ha* | | *ha* | | |
| *EF10* | *Unharvested cereal headland for birds and rare arable plants* | *330 per ha* | | *ha* | | |
| EF13 | Uncropped cultivated areas for ground-nesting birds - arable | 360 per ha | | ha | | |

| Code | Description | Points available | Option possible? (Y/N) | Measurement | Points – non bundle options | Points – from chosen bundle |
|---|---|---|---|---|---|---|
| EF15 | Reduced herbicide cereal crop preceding over-wintered stubble | 195 per ha | | ha | | |
| EF22 | Extended overwintered stubbles | 410 per ha | | ha | | |
| **EF23** | **Supplementary feeding in winter for farmland birds** | **630 per tonne** | | **tonne** | | |
| EG1 | Under sown spring cereals | 200 per ha | | ha | | |
| *EG4* | *Cereals for whole crop silage followed by over-wintered stubbles* | *230 per ha* | | *ha* | | |
| EJ2 | Management of maize crops to reduce soil erosion | 18 per ha | | ha | | |
| EJ10 | Enhanced management of maize crops to reduce erosion and run-off | 94 per ha | | Ha | | |
| EJ11 | Maintenance of watercourse fencing | 4 per 100m | | m | | |
| EJ13 | Winter cover crops | 65 per ha | | ha | | |
| **EK20** | **Ryegrass seed-set as winter/spring food for birds** | **80 per ha** | | **ha** | | |
| **EK21** | **Legume and herb-rich swards** | **200 per ha** | | **ha** | | |
| | The following options can only be chosen if you are applying for Uplands ELS | | | | | |
| UB4 | Stone-faced hedgebank management (both sides) on /above ML | 24 per 100m | | m | | |
| UB5 | Stone-faced hedgebank management (one side) on/above ML | 12 per 100m | | m | | |
| UB11 | Stone wall protection and maintenance on/above the moorland line | 32 per 100m | | m | | |
| UB12 | Earth bank management (both sides) on/above the moorland line | 18 per 100m | | m | | |
| UB13 | Earth bank management (one side) on/above the moorland line | 9 per 100m | | m | | |
| UB15 | Stone-faced hedgebank restoration | 55 per m | | m | | |
| UB16 | Earth bank restoration | 12.5 per m | | m | | |
| UB17 | Stone bank restoration | 30 per m | | m | | |
| UC5 | Sheep fencing around small woodlands | 50 per 100m | | m | | |
| UD12 | Maintenance of remote weatherproof traditional farm buildings | 4 per m2 | | m2 | | |
| UJ3 | Post and wire fencing along watercourses | 50 per 100m | | m | | |

| | |
|---|---|
| **Total Points for Annex 1 Non Bundle options** | |
| **Total Points for Annex 1 Bundle options**<br>Please enter this total in the box at section 3 table B of this application form | |
| **Total Points for Annex 1**<br>Please enter this total in the box at section 3 table B of this application form | |

**Annex 2, Option bundles.** Please record your choice of ELS non-rotational field options on the table below. Completion of the Farm Environment record and map and selection of option EA1 is compulsory. **High value options are highlighted in grey.**

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Points – non bundle options | Points – from chosen bundle |
|---|---|---|---|---|---|---|
| EC1 | Protection of in-field trees (arable) | 16 per tree | | trees | | |
| EC2 | Protection of in-field trees (grassland) | 11 per tree | | trees | | |
| EC4 | Management of woodland edges | 380 per ha | | ha | | |
| EC24 | Hedgerow tree buffer strips on cultivated land | 400 per ha | | ha | | |
| EC25 | Hedgerow tree buffer strips on grassland | 400 per ha | | ha | | |
| ED2 | Take archaeological features out of cultivation | 460 per ha | | ha | | |
| ED3 | Low depth, non-inversion cultivation on archaeological features | 60 per ha | | ha | | |
| ED4 | Management of scrub on archaeological features | 120 per ha | | ha | | |
| ED5 | Management of archaeological features on grassland | 16 per ha | | ha | | |
| *EE1* | *2m buffer strips on cultivated land* | *255 per ha* | | *ha* | | |
| *EE2* | *4m buffer strips on cultivated land* | *340 per ha* | | *ha* | | |
| *EE3* | *6m buffer strips on cultivated land* | *340 per ha* | | *ha* | | |
| *EE4* | *2m buffer strips on intensive grassland* | *255 per ha* | | *ha* | | |
| *EE5* | *4m buffer strips on intensive grassland* | *340 per ha* | | *ha* | | |
| *EE6* | *6m buffer strips on intensive grassland* | *340 per ha* | | *ha* | | |
| EE7 | Buffering in-field ponds in improved grassland | 400 per ha | | ha | | |
| EE8 | Buffering in-field ponds in arable land | 400 per ha | | ha | | |
| *EE9* | *6m buffer strips on cultivated land next to a watercourse* | *400 per ha* | | *ha* | | |
| *EE10* | *6m buffer strips on intensive grass next to a watercourse* | *400 per ha* | | *ha* | | |
| **EE12** | **supplement for adding wildflowers to EE1 - EE3, EE9 & EJ9** | **63 per ha** | | **ha** | | |
| EF1 | Field corner management | 400 per ha | | ha | | |
| EF7 | Beetle banks | 580 per ha | | ha | | |
| EF11 | Uncropped, cultivated margins for rare plants-arable | 400 per ha | | ha | | |
| *EJ5* | *In-field grass areas* | *454 per ha* | | *ha* | | |

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Points – non bundle options | Points – from chosen bundle |
|---|---|---|---|---|---|---|
| EJ9 | 12m buffer strips for watercourses on cultivated land | 400 per ha | | ha | | |
| EK1 | Take field corners out of mgmnt: outside SDA & ML | 400 per ha | | ha | | |
| EK2 | Permanent grass with low inputs: outside SDA & ML | 85 per ha | | ha | | |
| EK3 | Permanent grass with very low inputs: outside SDA & ML | 150 per ha | | ha | | |
| EK4 | Manage rush pastures: outside SDA & ML | 150 per ha | | ha | | |
| EK5 | Mixed stocking | 9 per ha | | ha | | |
| EL1 | Field corner management: SDA land | 100 per ha | | ha | | |
| EL2 | Permanent grassland with low inputs: SDA land | 35 per ha | | ha | | |
| EL3 | Permanent grassland with very low inputs: SDA land | 60 per ha | | ha | | |
| EL4 | Manage rush pastures: SDA land & ML parcels < 15ha | 60 per ha | | ha | | |
| EL5 | Enclosed rough grazing: SDA land & ML parcels < 15ha | 35 per ha | | ha | | |
| EL6 | Moorland and rough grazing: ML land only | 5 per ha | | ha | | |
| | The following options can only be chosen if you are applying for Uplands ELS | | | | | |
| UX1 | Moorland commons and shared grazing requirements | 5 per ha | | ha | | |
| UX2 | Upland grassland and arable requirements | 11 per ha | | ha | | |
| UX3 | Moorland requirements | 15 per ha | | ha | | |
| UC22 | Woodland livestock exclusion | 75per ha | | ha | | |
| UD13 | Maintaining visibility of archaeol features on moorland | 53 per ha | | ha | | |
| UJ12 | Winter stock removal next to streams, rivers and lakes | 35 per ha | | ha | | |
| UL17 | No supplementary feeding on moorland | 4 per ha | | ha | | |
| UL18 | Cattle grazing on upland grassland and moorland | 30 per ha | | ha | | |
| UL20 | Haymaking | 60 per ha | | ha | | |
| UL21 | No cutting strip within meadows | 250 per ha | | ha | | |

| Code | Description | Points available | Feature present? (Y/N) | Measurement | Points – non bundle options | Points – from chosen bundle |
|---|---|---|---|---|---|---|
| UL22 | Management of enclosed rough grazing for birds | 35 per ha | | ha | | |
| UL23 | Management of upland grassland for birds | 37 per ha | | ha | | |

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|---|---|
| **Total Points for Annex 2 Non bundle options** | |
| **Total Points for Annex 2 Chosen bundle options**<br>Please enter this total in the box at section 3 table B of this application form | |
| **Total Points for Annex 2**<br>Please enter this total in the box at section 3 table B of this application form | |

| **Total ELS points target on your land**… | |
|---|---|

| **Total UELS points target on your land (if applicable)** | |
|---|---|

| **ELS Options Summary** | Points |
|---|---|
| Total points for Annex 1 | |
| Total points for Annex 2 | |

**Total points**

(Your total points must be equal to or more than your ELS or Uplands ELS points target above.)

If you want to make sure that there is some margin for error, you may wish to consider delivering options slightly in excess of your target.

| | |
|---|---|
| **Total Points for Annex 1 Chosen bundle options** | |
| **Total Points for Annex 2 Chosen bundle options** | |
| **Total Chosen bundle option points** | |
| **Total Chosen bundle option points as a % of total target points** | |

**ELS Directed options project: reasons for not taking up priority options**

| | |
|---|---|
| Fera reference | |
| Name of surveyor | |
| Name of interviewee | |

Please give your reasons for not taking up these options on your farm

| Option code | Reasons |
|---|---|
| | |
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