

### ES quality assurance programme, 2013/14

Assessing the role of advice and support on the establishment of HLS agreements.

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#### **Glossary of Terms**

- AH Agreement Holder
- CI Capital Item
- ES Environmental Stewardship
- HLS Higher Level Stewardship
- IoS Indicator of Success
- MP Management Prescription
- NE Natural England

#### **EXECUTIVE SUMMARY**

#### Introduction

In 2014, a study of 102 Higher Level Stewardship (HLS) agreements which had recently started was carried out using a combination of field survey and agreement holder (AH) interviews. The aim was to evaluate the quality of agreement set up under new Natural England (NE) guidance on development and operational delivery of HLS agreements introduced in early 2013. Specifically, the work reported here was a field assessment of the quality of set-up and the agreement holders' understanding of and attitude to, their agreements, in order to understand the impact of agreement holder engagement on the potential to achieve agreement outcomes. The work was undertaken to complement and support an NE desk-based Quality Assurance (QA) exercise which was carried out to test the new NE guidance. Information complementing the NE QA exercise is reported throughout. Specific elements of results from the field survey and interviews were compared with results from the NE QA exercise to establish the degree of complementarity between the desk-based and 'field' approaches.

This project was run in parallel with another study (Defra Omnicom ref LM0432) of agreements established before 2009, which aimed to evaluate the progress towards achievement of agreement objectives and the influence of advice and support on this progress. Whilst the two projects were both concerned with the impact of advice and support, LM0432 was concerned with progress towards agreement outcomes, whereas LM0433 is focussed on new agreements and has more emphasis on the process of agreement establishment.

This summary of the field-based work reported here is presented against each of the specific project objectives and in terms of the complementarity of the desk and field-based approaches.

#### Methodology

#### Sample structure

A random stratified sample of 112 agreements was selected by NE for the QA exercise and, in each of seven English regions, was proportional to the number of new agreements started in 2013. In a total of 102 agreements it was possible both to interview the agreement holder and complete field surveys.

The fieldwork focussed on specific land parcels and the options to be surveyed (up to four options) were selected to include a range of objectives which were key to the specific agreement. Options for access and historic buildings were excluded because the fieldwork programme for this project was not able to assess these features. Interviews with agreement holders considered the agreement as a whole but also considered the same parcels addressed by the field survey. Supplementary options and Capital Items present in the selected parcels were also assessed.

#### **Field surveys**

Field surveys were undertaken between February and August with the timing determined by the appropriate time of year to assess the different variables involved. To support the field survey, aerial photography was assessed for all parcels on each agreement holding to identify possible missed opportunities in terms of features and option selection. Where possible, variables which were used in Indicators of Success (IoS) were measured.

Field assessments evaluated:

- The accuracy of the Farm Environment Plan (FEP) (features and condition);
- Suitability of options applied to individual features and parcels;
- Appropriateness of Indicators of Success (IoS) (type and level);
- Progress with implementing Capital Items (CIs);
- Any missed opportunities (in conjunction with the remote sensing exercise).

Core options were selected for survey and any supplementary options and CIs associated with the specified option and land parcel were also assessed. Botanical monitoring was done on all grassland options to identify the FEP habitat. For other features, variables required to identify the FEP feature and condition and any included in IoS were recorded.

#### Interviews

A structured questionnaire was developed and submitted to the Survey Control Liaison Unit for approval (Appendix 4). In order to gather data on agreement holder understanding for this project the intention was to undertake a face-to-face interview with as many of the sample agreement holders as possible. The interviews were developed to:

- Provide a thorough assessment of the role that advice and support played in the establishment of the HLS agreement;
- Establish the level of agreement holder understanding and the importance they place on the advice and support received;
- Consider whether the advice and support was appropriate, relevant and assisted the agreement holder to understand the requirements of the HLS agreement; and
- Assess the impact of the advice and support on the interventions and the achievement of high quality environmental outcomes.

#### Evaluation

Spearman's rank correlation was used to test the relationship between inputs to establishment of HLS agreements (AH knowledge and advice) and set-up indicators (FEP accuracy, option selection and setting IoS). This analysis used the indicators available from the AH interviews and field survey work, testing for correlations between each paired input/set-up indicator. A comparative analysis was also undertaken to test the correlation between field survey scores and the NE QA exercise scores.

#### **Sample Overview**

The sample was broadly representative of HLS agreements which started during 2013/14 according to holding size. It may not have been typical of HLS agreements as a whole, because 2013 was the final year for new HLS agreements and, rather than being open to anyone who applied, the scheme was largely open only to those who had been invited to apply by NE. Also, a large number were transferring from previous schemes, however the proportion (63%) in this sample entering HLS from classic schemes (Environmentally

Sensitive Areas and Countryside Stewardship Scheme) was similar to a study of agreements signed prior to 2009 (58%).

In terms of business type, the sample was dominated by commercial farm businesses (78%). However, these have been sub-divided into two categories, the larger group (65%) form an Agriculture dependent group that are heavily reliant on agricultural enterprises, including Agri-Environment Scheme (AES) and Single Payment Scheme (SPS) payments, for more than half their business income. The smaller category (13%) of Agriculture non-dependent farms did not rely on agriculture for most of their business income. This leaves a third group (22%) who said that their businesses were non-agricultural or operated on a non-commercial basis. This includes some environmental groups, e.g. Wildlife Trusts, environmental Non-Government Organisations (NGOs) and local authorities, which tended not to be involved in conventional farming.

# Project Objective 1. To assess the appropriateness of option placement, intended agreement outcomes and management prescriptions, given the physical assets of the holding and the local targeting objectives.

Under this objective we consider those elements of the work that relate to the agreement as a whole. The detail of the quality of set-up at the parcel scale is addressed under objective 3.

No valuable, parcel-scale habitats were identified that had been missed from the Farm Environment Plan. Missed opportunities were more likely to relate to sub-parcel scale habitats or to alternative parcels that could have been entered into HLS options. However, it was beyond the scope of this work to fully assess missed opportunities because a complete audit of features was not possible and the full background of reasons for including/excluding options/parcels was not available.

In the agreement holder survey, almost nine out of ten agreement holders (89%) felt that the advice and support had a very significant (62%) or fairly significant (27%) influence on 'the overall package of options selected for their HLS agreement'.

Where target statements existed for the area, most agreements included a high proportion of target options (mean 83%) and on only 4% of agreements were fewer than 50% of options in the relevant target statement.

## Project Objective 2. To assess agreement holder understanding of, engagement with and attitude towards agreement requirements, intended outcomes and prescriptions.

#### **Motivation for entering HLS**

The reasons given by agreement holders for taking up their agreements related mainly to the objectives of HLS and to the financial contribution of the agreement. With regard to HLS objectives many agreement holders wanted to continue the work started under other AES agreements and for others management of a Site of Special Scientific Interest (SSSI) was the priority. Some interviewees also had a focus on resource protection. Agreement holder views on the scheme payments supported the notion that for some farm businesses the contribution made by AES is important for the viability of the business, notably in the

uplands. Clearly these initial motivations for joining may affect how advice and support are received.

#### Provision of advice and support

Looking in detail at the agreement holder's experience of the stages of agreement development, 85% said that they were satisfied overall with the advice and support provided by their NE officer during all stages they were engaged with. Of those who felt something was unsatisfactory, 9% said this was the case for only one of the six stages. Satisfaction for each of the stages was higher than 90% in every case. In a fifth of cases (22%) only the NE officer was involved in offering advice and support. Most (58%) had another third party adviser but a fifth (20%) had at least two third party advisers. In most cases the third adviser offered specialist advice. Two thirds of agreement holders felt stages 2-4 (initial visit, preparing the FEP and formal visit to assess the application) were the most influential in shaping the agreement. In particular, agreement holders really valued the fact that advisers carried out site visits and felt them to be a key part of the development process. NE officers had carried out site visits on 99% of the agreements in the sample and had the most influence on option selection. Generally, agreement holders had limited influence over the choice of options, although for agreements delivered by professional organisations, there was some evidence of option renegotiation. Other advisers also had a key role to play in offering specialist advice and most visited the site as well.

| Stage of HLS agreement establishment                     | Key findings  |
|--|---|
| Stage 1: responding to the expression of interest        | 34% of AH mentioned stage, 96% satisfied with this stage of the process. NE officer key.                                    |
| Stage 2: The initial visit                               | 57% of AH indicated that NE officer was present at the initial visit, 98% were satisfied with the outcome of the visit.     |
| Stage 3: Help in preparing and submitting the FEP        | 87% of AH received help in preparing and submitting<br>the FEP from a non-NE adviser. 94% were satisfied<br>with this help. |
| Stage 4: Formal visit to discuss the FEP and application | 67% of AH identified that their NE officer was part of the formal visit.  |
| Stage 5: Checking and signing the agreement              | 47% of AH stated NE officer participated in the checking and signing of the agreement.                                      |
| Stage 6: Implementation                                  | 47% of AH had received advice on implementation since signing the agreement, most likely the NE officer.                    |

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Most agreements involved two or more advisers (78%). The role of the NE officer was consistent across the establishment process, with the exception of the FEP where a non-NE adviser worked with the agreement holder. The most influential stages were seen as the initial visit, development of the FEP and the formal visit associated with the signing of the agreement.

The advice offered by the NE officer was seen by the agreement holder as very appropriate to their HLS agreement in two thirds (68%) of cases and 'appropriate' in the remaining cases. None of the agreement holders thought the advice was 'inappropriate'. In terms of suiting the farm business it was very appropriate in over half (54%) of cases and felt to be inappropriate in just 7% of cases. The other advisers received similar ratings. The advice delivered as part of the process outlined in the table above was judged to be of high quality and the right quantity, across all of the advisers, NE officers and other advisers involved. Overall the impression is of a well-balanced process that provides advice and support that agreement holders were very satisfied with.

#### Impact of advice and support

Overall, the vast majority of agreement holders felt that their agreements are manageable but a small number of agreement holders felt that they are complex to understand and implement. Almost half the agreement holders said they consulted their agreement documentation on a regular basis (48%) with 44% doing so 'occasionally'. Only eight per cent said they looked at their documentation 'hardly at all'. In terms of understanding of the options, the responses provided by the agreement holders when discussing the selected options were assessed and placed into three categories by the interviewers. The largest group (44% of agreement holders) were considered to have 'High' understanding, 37% 'Medium' understanding and 19% 'Low' understanding.

Discussing the advice in a wider context in terms of the package of advice and support and its influence on the establishment of the agreement, over two thirds of agreement holders felt that the advice and support had a 'very significant' (68%) influence on the preparation of the agreement. A further quarter said it was 'fairly significant' (26%) to give an overall approval rate of 94%.

#### **Capacity to deliver**

Agreement holders with capacity to do the work (76%) on the options tended to indicate that they will do the work themselves or use their own farm labour. Agreement holders without the capacity to do the work (24%) tended to rely on contractors and others. In some cases this concerned grazing and other significant management and no suitable source had been identified at the point of interview. The agreement holders were of the view that the majority of HLS options fitted well with current farm practice. Overall, eight out of ten options (81%) were either a very good fit (59%) or a good fit (22%) with the current farm management.

#### Agreement holder perception of success

In terms of the success of the agreement, the majority of agreement holders (73%) identified primarily with the environmental objectives of the scheme while 16% identified success primarily in terms of business and financial criteria. A further 11% of agreement

**Executive Summary** 

holders mentioned both environmental and business and financial criteria. When this response was compared with the response regarding the success of the agreement those agreement holders who offered both environmental and financial reasons as a measure of a successful agreement were the most confident that the agreement would be successful. Those agreement holders who were not at all confident of being able to achieve a successful HLS agreement tended to identify success solely in terms of business and financial criteria (13%).

#### Wider impact of advice

Overall two thirds of the agreement holders said that the advice and support received had made them more aware of the management requirements and this was fairly consistent across the main option types. It was highest in arable options (72%) and lowest in wetland options (55%). Those with agreements containing arable options seemed to be more wary about the effectiveness and likely success of the management prescriptions but they are able to do the work, are more aware of the feature, how it should be managed and that this is the most appropriate management.

These findings suggest that the overall impact of the advice and support is strong and that the agreement holders receive considerable benefit from it. Moreover they are aware of this and of what the intended outcomes of the agreement should be.

## Project Objective 3. To assess the quality of agreement establishment as a foundation for future delivery.

#### Identification of features in the FEP

Most (84%) of the 368 habitats or features assessed had been accurately identified in the agreements. On 59% of agreements, all features assessed had been identified correctly. Features that were least well recorded were: grasslands for botanical diversity (66% correct) and wetlands (78% correct).

There were three key reasons for misclassification of features:

- Poor mapping on large parcels with habitat mosaics and omission of habitats present at a sub-parcel scale
- Inflation of feature quality, particularly for grassland habitats G01-G09
- Difficulties of classification against FEP codes because of a lack of clarity in the FEP criteria (tree/woodland features) or where features were borderline between two categories.

Condition associated with individual FEP codes could not be assessed where condition codes were not available or where FEP codes allocated on the FEP and by the field surveyor did not match. Of those FEP condition codes that could be assessed, nearly two thirds (63%) were allocated a suitable condition in the agreement. Condition codes were correct for all features assessed on 36% of agreements, but on 33% of agreements less than half of features assessed were correct. Of those that were not considered correct, nearly two thirds of features were considered to be a lower category than the agreement stated. This was most common for grassland and moorland habitats.

#### Suitability of options selected

Of the 258 core options assessed against 352 FEP codes, 84% were considered suitable for the habitat or feature. On 53% of agreements, all the options assessed against FEP codes were considered appropriate. Only 4% of options (on ten agreements) were assessed as inappropriate for the feature. There was no relationship between the accuracy of the FEP code allocated and the suitability of the options applied; a correct option could be applied where the feature had been misidentified. Reasons for misapplied options were: a different management level was required (maintenance, restoration, creation), options were applied to a larger area than appropriate, more cost-effective options were available and outcomes were too ambitious.

#### **Target outcomes (Indicators of Success)**

A total of 1613 Indicators of Success (IoS) relating to 307 options could be assessed in the field. Surveyors judged whether each IoS was an appropriate type and set at an appropriate level. IoS are the principal means of evaluating progress and are based on NE templates for each option, however there were some issues with the template indicators, including:

- That outcomes are not measurable (e.g. the outcomes related to change, but baseline data were not available)
- They are only measureable on repeated visits (e.g. birds regularly seen)
- Lack of clarity or assessments are subjective (e.g. proportion of forbs in flower).

IoS were more likely to be considered an appropriate type (88%) than to be set at an appropriate level (68%). Although, most were therefore judged to be suitable, a significant minority of indicators were flawed.

The main issues with the IoS were: overambitious targets given current condition; targets too easy to achieve; baseline information to assess targets absent; inappropriate for the feature in question; relate to a subset of the parcel; broad target ranges; subjective assessments; incorrect management level; inappropriate for AH to assess; lack of clarity; absence of/incorrect species lists; features not present; indicators listed in additional documentation; features not present and conflicting indicators.

Overall, the underlying reason for IoS being an inappropriate type or set at an inappropriate level was because they had been copied from templates with insufficient consideration of the feature to which they were being applied.

#### **Capital Items**

Progress with Capital Items (CIs) could not be fully evaluated because field visits were made within the first 16 months of the agreement start dates, whilst most were due to be completed within the first two years. One fifth of CIs had already been completed and these were often fencing which is inherently linked to the management associated with the option.

**Executive Summary** 

#### Advice input

The site visit is clearly a critical stage in agreement establishment. The advice is seen as appropriate for the farm as well as the agreement itself and rated very highly by the agreement holders. This is also evidence that the high quality of agreement establishment might act as a foundation for the future delivery of the agreement (Project Objective 3).

# Project Objective 4. To assess the impact of agreement holder understanding and engagement and quality of agreement establishment on the potential to achieve agreement outcomes.

Input indicators summarised agreement holder characteristics and their views on the advice and support received and were scored by interviewers on a scale of 1-5 where 1 is very low and 5 very high. Similarly the field surveyors scored agreement set-up indicators (FEP accuracy, option selection and appropriateness of IoS) on a scale of 0-2 for each agreement/option. Individual parameters were then ranked according to score (low to high) and compared in pairs (input vs. set-up) using the Spearman's rank correlation.

#### Impact of agreement holder on agreement establishment

The analysis found little evidence of correlation between any input and agreement set-up indicators. This is due to clustering of scores (for both input and set-up indictors) at the higher end (3 or more on a scale of 1-5), which meant that ranking was unreliable. Additionally, it was evident that the AH had limited influence on the key set-up indicators, at this early stage in the agreement, namely FEP accuracy, appropriateness of selection and setting of IoS as these are generally undertaken by external advisers and NE officers.

Agreement holders' confidence in the success of the agreement was different depending on their agricultural dependency. Across all of the agreement holders almost 40% of agreement holders were 'very confident'. However in the 'non-commercial group' (which included bodies such as Wildlife Trusts and County Councils) this was over 50% compared to under 40% in the other two more agricultural groups. This suggests that those agreement holders where agriculture played a more significant role require a strong agreement establishment period in order to prepare them for the implementation stage and develop confidence in the proposed management.

However, a qualitative analysis of outlier agreements from the correlation analysis found that AHs with good knowledge may have suboptimal agreements and that AHs with poor knowledge can have good agreements. Nevertheless, a high level (quantity and quality) of advice input during preparation of the agreement and choice of options is a key success factor for some.

This was a study of new agreements and it has shown that the AH has limited influence on the agreement set-up. The role of the AH becomes more significant after the agreement is set up and the role of advice and support in building capacity and commitment in delivering good outcomes is likely to be greater. The main reasons for poor set-up scores are the complexity of the management required for the site (e.g. SSSI) and the application of inappropriate options (creation rather than maintenance) and these areas are perhaps where advice should be focused at this stage of the agreement.

#### Comparison of desk-based and field evaluations

Comparison of the results of this work with the NE QA exercise revealed no correlation between the NE scores and either the input indicators (AH characteristics and their views on advice received) or the set-up indicators (field survey of FEP, options and IoS). The two evaluations have a different focus, notably NE's assessments were process based, whereas the results of the field monitoring represent an assessment of the outcomes (agreement set-up). A desk-based assessment cannot identify design issues and therefore is not a substitute for field monitoring. However set-up issues identified in the field were often accompanied by process issues highlighted in the NE QA exercise, therefore a desk-based assessment is one way of identifying agreements with issues which warrant further investigation.

#### Discussion

This work has shown that, for the elements of agreement set-up assessed in this study, most agreements were well set up and the advice and support is considered by agreement holders to be appropriate and is highly valued. However, many agreements had at least some elements that could have been improved. Although the HLS scheme is now closed to new entrants, a series of recommendations is made for improved design and implementation of the scheme which are likely to be relevant for the new Countryside Stewardship launched in 2015.

The FEP generally represented a good audit of the holding on which to base the agreement, although there was some inflation of feature quality, particularly for grasslands. Suitable options had usually been selected and NE targeting statements had apparently been considered. However there was generally limited input from the agreement holder to this set-up phase and only agreement holders who are professional organisations had an influence over the options. The role of advice and support is likely to become more important through implementation of the agreement.

Field surveyors thought the agreement documentation was long and complex and could be better structured. Although agreement holders initially found the documentation complex, most rapidly became comfortable with it, although they did not routinely refer to it. More concise and focussed documentation might improve the AH understanding and thus the agreement set-up and outcomes.

There were usually no overarching objectives for an agreement and Indicators of Success (IoS) form the basis against which the agreement is judged. Very few AHs were aware of the detail of the IoS and field surveyors suggested that they were too technical to be of value to most AHs. A number of IoS could not be used to monitor progress without additional information or an intensive monitoring programme. An overview of justification for selection and non-selection of options and specific parcels would have been helpful in making a holistic assessment of the quality of agreements. Agreement holders could be encouraged to learn more about their agreement by training and through the use of IoS

**Executive Summary** 

which are more appropriate for a non-specialist. To be a more effective and resource efficient tool for monitoring progress IoS should be measureable (preferably during a single visit) and not liable to different interpretation.

Natural England Officers were central to agreement establishment because of the complexity of the agreement and its documentation. However, field assessment of elements of the agreement documentation suggests that not all NE officers have the appropriate experience or can devote sufficient time to agreements and AHs and we suggest that further guidance is required.

The lack of correlation between the scores derived from this field survey and the NE QA exercise indicate that a desk-based QA exercise cannot replace field assessment, but will identify some agreements with issues for further investigation.

#### Recommendations

**Agreement documentation** should include a **summary justification** of options chosen and specific parcels entered. Equally important is a justification of features/parcels of environmental value which have not been included in the agreement.

**The Target Area and Theme lists** should be designed to include a ranking of priorities or preferred option combinations.

**Option selection should consider the feasibility of implementing the option** in terms of the demand on the existing business in terms of change in management and in the presence of important infrastructure and knowledge. Perhaps recommend training or courses in areas of poor knowledge or a 'buddy' who has implemented this option successfully.

**Update FEP guidance** to ensure accurate identification of features or where there is potential to restore a habitat and include evidence to justify decisions.

**Ensure that all applicants**, including those moving from one scheme to another have a full **opportunity to review the previous management and fully engage** in the preparation of the FEP in order for the strongest foundation for the agreement to be formed.

**Improved guidance** for some inexperienced or overstretched NE officers to ensure agreements are set up to a high standard, and those AHs who most need it should receive appropriate advice and support. The agreement should look to build on existing knowledge and provide some back-up where new management is being implemented. This can be discussed and agreed with the agreement holder.

It is possible that uncertainty could be reduced by linking NE officers or other advisers with particular expertise in the particular options or types of agreement holders. Also the development of discussions groups would provide a further mechanism for agreement holders to engage with other agreement holders and advisers.

**Overall objectives** for the agreement as a whole should be defined to provide a more holistic representation of the purpose of the agreement and how it links with neighbouring land (e.g. SSSI) and the wider ecological networks.

**The agreement documentation could be revised and restructured** to present information in a format that is both more accessible to a farmer/landowner in terms of content and structured in a way more compatible with farming practice.

**The purpose of IoS** should be defined and some indicators should be revised or removed from the templates to ensure that IoS are appropriate for their stated purpose.

**Training in general environmental principles** and more specifically to allow agreement holders to monitor the progress of their agreements would improve engagement and could be delivered as part of the application process.

Monitoring and evaluation should retain an in-field element.

Agreement data should be supplied in a database format such as Access or Excel.

The utility of geostore to deliver data to contractors should be reviewed. While the system works very well for individual orders of a small spatial extent it is not feasible for large datasets over disparate locations.

Introduction \ Background

#### **1 INTRODUCTION**

#### 1.1 Background

Higher Level Stewardship (HLS) was introduced in 2005, to provide support to farmers in managing land for important environmental benefits. It is run under the Rural Development Programme for England (RDPE) and contributes to strategic priorities for biodiversity, natural resource protection, sustainable farming and food and sustainable rural communities. HLS agreements are developed by the land manager with support from Natural England (NE) Officers and input from other organisations that give advice to farmers.

It is widely recognised that the provision of good quality advice and support can help to ensure that option choices are appropriate, and improve the agreement holder's understanding of what is required, potentially improving achievement of outcomes. In response to recommendations from the Making Environmental Stewardship More Effective (MESME) project, NE has developed new guidance for the development and operational delivery of HLS agreements. This has been in place since February 2013 and NE has carried out a desk based quality assurance (QA) exercise on new agreements to test its implementation. This project aims to provide additional evidence to complement and support the internal NE QA exercise.

#### 1.2 Higher Level Stewardship Agreements

In order to set the work into context, we here present a brief summary of the documentation involved in HLS agreements. For further detail, see the HLS handbook (Natural England, 2013).

The Farm Environment Plan (FEP) (Natural England, 2010) is an audit of environmental features on the holding which was a pre-requisite for HLS. It was usually carried out by an independent professional body. The FEP consisted of:

- FEP Map annotated map of environmental features;
- Part 1 Farm and surveyor details;
- Part 2 Environmental Features Data Sheet listing all features by land parcel with details of feature quantity and condition;
- Farm Overview and Opportunities form a summary description of the farm and its management;
- Part 6 record of consultations and checklists.

The FEP formed the basis for selecting options in the HLS agreement and was guided by targeting<sup>1</sup> statements in 110 areas of the country. The agreement documentation consisted of a series of sections detailing different aspects of the requirements:

<sup>&</sup>lt;sup>1</sup>http://webarchive.nationalarchives.gov.uk/20140523111208/http://www.naturalengland.org.uk/ourwork/far ming/funding/es/hls/targeting/default.aspx

Introduction \ Natural England Quality Assurance Exercise

- Part 1 details of annual Entry Level Stewardship (ELS) or Organic ELS (OELS) and HLS payments;
- Part 2 a summary showing options within the ELS or OELS and HLS agreement;
- Part 3 a description of the management required for each HLS option chosen, the prescriptions to be followed and the target outcomes known as 'indicators of success';
- Part 4 schedule for the Capital Works Plan;
- Part 5 specifications for the minimum standard of work for Capital Works;
- Part 6 a list of all fields under permanent grass and the total area of temporary grass, along with the permitted maximum stocking density;
- Part 7 maps showing the location of ELS or OELS and HLS options.

The dossiers of information compiled for the researchers for each agreement included: The FEP Part 2 and map and Parts 3, 4, 5 and 7 of the agreement documentation.

#### 1.3 Natural England Quality Assurance Exercise

The NE QA exercise assessed HLS agreements within one month of the agreement start date and each region was visited on two occasions between three and ten months apart. This was a desk-based exercise carried out by a small group of NE staff who visited the NE offices in each region on two occasions. It aimed, as far as possible, to assess the quality of agreement set-up through an evaluation of agreement documentation held on the NE Genesis system, which holds all records of HLS agreements. The exercise involved assessment of agreements against the following elements:

- Right place targeting and Farm Environment Plans (FEPs) must identify the places which maximise environmental outcomes for the investment.
- Right options/management the agreement must use the right options for the features and clearly explain the objectives, the required management and how success will be judged.
- Right process Genesis and other agreed processes must be followed in order to satisfy audit trails.
- Compliance the agreement must comply with EU regulations and fit within the programme and present no accreditation risk.

Because this was a desk-based exercise, there was limited scope to assess whether options were appropriately placed and represented appropriate options and management for the features in question. Assessment of the process and compliance was therefore the main focus of the NE QA exercise. Scores were allocated on a four point RAG scale where:

- Green = no issues;
- Amber/green = minor issues;
- Amber/red = significant issues, or lack of evidence to show decisions reached;
- Red = potential or actual compliance issue, or significant concerns over the validity or viability of the agreement.

Introduction \ Project Objectives

#### 1.4 Project Objectives

The project objectives are, in conjunction with the NE internal QA exercise, to provide an assessment of:

- 1. the appropriateness of option placement, intended agreement outcomes and management prescriptions, given the physical assets of the holding and the local targeting objectives,
- 2. agreement holder understanding of, engagement with and attitude towards agreement requirements, intended outcomes and prescriptions,
- 3. the quality of agreement establishment as a foundation for future delivery,
- 4. the impact of agreement holder understanding and engagement and quality of agreement establishment on the potential to achieve agreement outcomes.

These objectives have been addressed through a combination of interviews, remote sensing analysis and field survey. Interviews with agreement holders established the agreement holders' level of understanding and attitude to their agreement. The remote sensing analysis and field assessments evaluated the quality of the agreement set-up.

#### 1.5 Relationship with other work

This project was run in parallel with another project (NE ref. LM0432), which studied agreements established before 2009, which had therefore been in progress for at least five years. The work aimed to assess progress towards achievement of agreement objectives and the influence of advice and support upon this progress in order to inform delivery of agri-environment schemes under the next Rural Development Programme.

The project objectives for LM0432 were:

- to assess progress towards the achievement of intended HLS agreement outcomes, including the assessment of feature condition in relation to agreement Indicators of Success,
- 2. to assess observed results of management in relation to agreement management prescriptions,
- 3. to gather and analyse information on advice and support provision in order to assess its quality and appropriateness, including information from agreement holders, NE staff and third parties,
- 4. to evaluate the relationship between quality, appropriateness and timing of advice provision and progress towards or achievement of agreement outcomes.

Whilst the two projects were both concerned with the impact of advice and support, and were similar in a number of ways, LM0432 was concerned with the progress towards agreement outcomes, whereas the emphasis of LM0433 was the processes of agreement establishment.

Methodology / Overview

#### 2 METHODOLOGY

There were similarities between the methods used for this project and those used in LM0432, but LM0432 focused on the impact of advice and support on agreement outcomes, the implementation of management prescriptions set out in the agreement documentation, and progress towards achievement of objectives as defined by Indicators of Success (IoS). In contrast LM0433 focussed more on the Farm Environment Plan (FEP) and the details of agreement set-up, and field work was used as a basis for assessing the quality of agreement establishment as a foundation for future delivery.

#### 2.1 Overview

Natural England (NE) provided a sample of 112 agreements that had been subjected to their QA exercise. These were selected from seven regions across England (Yorkshire & Humber and the North East were combined because in these regions a relatively small number of agreements had started within the time period of the NE QA exercise).

Face to face interviews were conducted with agreement holders to explore: their understanding of delivery requirements; their attitudes towards agreement requirements and environmental outcomes; their evaluation of the quality of advice and support received at different stages. The quality of agreement set-up was assessed through remote sensing and field survey. Identification of the appropriateness of option placement was initially carried out as a rapid analysis of the whole agreement, using remote sensing analysis to assess whether appropriate options had been applied to parcels and to identify potentially suitable options that had been omitted from the agreement. Subsequent field survey assessed the quality of agreement set-up as a foundation for future delivery in terms of the appropriateness of option selection/placement, potential missed opportunities and intended agreement outcomes.

For the purposes of the field-based project reported here, all agreement holders were contacted within one year of the start of their agreement and almost all were visited for interview within that time. Field visits were scheduled to maximise their value in terms of the options to be assessed and were completed between February and August.

Field assessments focussed on a sample of up to four core options on each agreement and one parcel was selected for each of the options chosen. All supplement options associated with the selected parcel and Capital Items (CI) within the parcel or on its boundaries were assessed. A parcel approach was taken, therefore where multiple options were present on a parcel, these were all included in the assessments. Interviews included detailed questions about the management of the selected land parcel under each option including questions on supplements and any critical CIs associated with delivery of the core option.

#### 2.2 Selection of options to be assessed

The core options to be assessed were selected to provide a range of key options for each agreement under different themes/outcomes. The selection process was based on and prioritised in the order set out below, although it was not necessarily a simple, direct process and factors further down the list may have overridden those higher up the list. For example a Site of Special Scientific Interest (SSSI) might be excluded if agreement objectives

deem other features as a higher priority or if the SSSI accounts for only a small proportion of the total cost of the agreement. The selection priorities were:

- 1. key objectives set out in adviser reports where these are available,
- 2. important feature types (including SSSIs) or themes,
- 3. target area statements (where the agreement is in a target area identified on the NE QA exercise outputs) (regional theme statements were not considered),
- 4. the degree of change expected (creation/restoration rather than maintenance if multiple options apply to the same feature),
- 5. any other reasons for demanding management,
- 6. area and/or cost.

Where similar options were present (e.g. maintenance and restoration of species-rich grassland) only one was usually selected, to maximise the variety of key features/themes assessed.

Options related to access (HN1 through to HN9) and historic buildings were excluded from this work because the fieldwork programme for this project was not able to assess these features. Entry Level Stewardship (ELS) options included in Higher Level Stewardship (HLS) agreements as 'more of the same' options were also not assessed here.

#### 2.3 Field survey

#### 2.3.1 Timing of field visits

Field visits were carried out after the interviews (see section 2.4) and were scheduled to maximise the value of assessments across the range of options on each agreement, although it was not possible to assess all features at the optimum time in a single visit. Those agreements dominated by moorland options were therefore visited in late winter/early spring, whereas others were assessed between May and early August.

#### 2.3.2 Support for the field survey from remote sensing analysis

To support the field survey and the assessment of specific IoS targets during the survey, each individual parcel was assessed using recent Aerial Photography. The options applied to the parcel were assessed for their appropriateness and the potential omission of suitable options was considered. Measurable IoS, such as vegetation cover of heath or bracken, were measured and cover values specified. Any inconsistencies with the data supplied in the farm dossiers, such as missing parcel polygons were further highlighted. Other features of potential interest which might be difficult to see on the ground in complex land parcels, such as erosion and the location of small bogs and mires were also indicated.

An example of the outputs is presented below (Figure 1Figure 1).



Methodology \ Field survey

The following table illustrates the format of all subsequent tables. If any rows are empty this means we did not find anything to report:

Parcel appears to be rough grassland with flushy areas.

Figure 1 Example of anonymised remote sensing output for an extract of agreement QA035

Methodology  $\setminus$  Field survey

#### 2.3.3 Field assessments

#### 2.3.3.1 Overview

The field methodology was designed to address project objectives 1 and 3. It was adapted from the methodology used for previous agreement-scale monitoring of HLS (Mountford *et al.,* 2013) therefore some comparison with previous work was possible.

Field assessments evaluated:

- The accuracy of the FEP (feature and condition),
- Suitability of options (and supplementary options) applied to individual parcels,
- Appropriateness of Indicators of Success,
- Progress with implementing Capital Items,
- Any missed opportunities (in conjunction with the remote sensing exercise).

Management Prescriptions (MPs) were not routinely assessed because it was too early in the agreements to evaluate whether they were being adhered to. However, some MPs define measureable outcomes, arguably more suited to being IoS. Where field surveyors judged that this had occurred, they assessed whether these outcomes were likely to be met in the same way that IoS were judged.

#### 2.3.3.2 Farm Environment Plan

The accuracy of the FEP and/or the FEP part 2 was assessed both in terms of the feature identification and the condition category assigned. In the FEP handbook (Natural England, 2010) each feature is assigned a code based on a number of characteristics, grouped by feature type (see Appendix 2 for a full list of FEP codes). Most features also require an assessment of their condition as part of the FEP process to assist in determining which option is appropriate. A series of criteria are defined for each feature and the condition is defined by the number of criteria that are not met. A feature which met all criteria would be classed in condition 'A'. If one criterion is failed the feature would be classed as condition 'B' and failure for two or more criteria results in condition 'C' (Natural England, 2010).

Field surveyors recorded variables relevant to the identification of the FEP code and condition criteria for each FEP code surveyed. For grassland features identification of the appropriate FEP code requires a botanical survey. Species presence was recorded in ten quadrats  $(1 \times 1 \text{ m})$  to assess overall diversity and the frequency of indicator species. To assess the level of improvement against FEP criteria, percentage cover of wildflowers and sedges combined but excluding white clover, creeping buttercup and injurious weeds were also recorded (Natural England, 2010). Other variables were recorded as necessary to define the FEP feature category and condition and to establish whether IoS were appropriate.

#### 2.3.3.3 Suitability of options

For each land parcel assessed, surveyors were asked to judge whether an appropriate option had been applied, taking into account the specific location and feature. If the surveyor considered the option chosen was completely inappropriate for the parcel, they assessed it as Red. For example species-rich grassland restoration on improved grassland

#### Methodology \ Field survey

with no potential for restoration, or an option aimed at waders surrounded by tall trees or hedges were judged to be Red. The option was assessed as Amber, where the surveyor considered it to be appropriate but had some reservations. For example, where only part of the parcel was suitable, for instance, or grassland for target features where the target/s were not made clear. These are sometimes difficult distinctions to make; it does rely on the experience of the surveyors to make a judgement in the context of each location. Where the surveyors were uncertain, they were advised to give the benefit of the doubt, i.e. only to use Red if an option was clearly inappropriate, only to use Amber if they had specific concerns, otherwise to record Green.

#### 2.3.3.4 Indicators of Success

Assessments were made of the appropriateness of all indicators of success where possible. If an unsuitable or doubtful option had been identified, assessments of the IoS were still made because they were often relevant for a range of reasons. For example, the option might be doubtful because it represented a low priority feature or low value option for that feature; options were applicable to a small proportion of the parcel or area entered; the wrong management level (maintenance, restoration, creation) had been chosen.

IoS presented as individual bullet points in agreements often include more than one variable relating to a feature or aspect of a feature. In order to record data against each IoS it was necessary to split IoS where this occurred so that each indicator related to an individual measurement. Throughout this report IoS is used to describe the indicator relating to an individual variable assessed in the field rather than the 'composite' indicator listed in the agreement.

Field surveyors were asked to judge whether IoS were appropriate for the parcel in question, in terms of both the 'type' of indicator and the 'level' at which it had been set. However these are subjective assessments and occasionally the distinction between 'type' and 'level' had been interpreted differently by individual surveyors. Field surveyors were asked to categorise the type and level of each IoS on a RAG (Red/Amber/Green) scale. The two RAG scores are independent; an IoS could be Green for appropriate type but Red for appropriate level.

If the surveyor considered the IoS type to be completely inappropriate in the parcel they were surveying, it was recorded as Red, e.g. if it referred to a feature which was not present and unlikely to be present during the agreement, or if it was impractical in the location they were investigating e.g. IoS requiring cattle-grazing on a very steep slope. If the type was not entirely inappropriate, but the surveyor had concerns about it, then it was recorded as Amber, for example, an IoS which was not inappropriate in itself but which conflicted with another objective, or was not clearly expressed or was too vague to measure (e.g. IoS expressed as an aspiration without a target). If the surveyor considered the IoS type to be appropriate and feasible, it was recorded as Green.

The level at which the IoS was set, was considered separately. If the level was clearly inappropriate for the particular location, or not achievable in the timeframe, it was recorded as Red, e.g. full tree canopy when trees just planted. If the level was thought to be a bit too high or too low or not ambitious enough, then it was recorded as Amber. If the surveyor considered the target level to be about right, then it was recorded as Green.

#### Methodology \ Field survey

These are often difficult distinctions to make. The use of the RAG scores was discussed with examples on the surveyor training course, but ultimately it does rely on the experience of our surveyors to make a judgement in the context of each location. This was sometimes made more difficult because of the lack of detailed information on the previous management and condition of the feature. Where the surveyors were uncertain, they were advised to give the benefit of the doubt, i.e. only to use Red if an IoS was clearly inappropriate, only to use Amber if they had specific concerns, otherwise to record Green.

#### 2.3.3.5 Capital items and missed opportunities

All CIs associated with the land parcel and its boundaries were assessed against the schedule in Part 4 of the agreement. In addition, assessment was made of sub-parcel scale habitats that were highlighted by the remote sensing activity as potential missed opportunities.

Where a field or land parcel contained different HLS options applied to different habitat/feature types, these were assessed separately, even where there was no physical boundary. Where a parcel with a single main HLS option had a number of different feature codes, this was assessed as one parcel in order to take a holistic approach to the assessment of outcomes, however, surveyors sometimes had to be selective about the range of features/options they are able to sample, particularly in unenclosed upland areas. For example one parcel under moorland restoration contained<sup>2</sup>:

M01 – Grass moorland and rough grazing M04 – Upland heath – BAP habitat M06 – Blanket bog – BAP habitat M07 – Upland cliffs and screes V05 – Bracken of high environmental value.

Where not all features could be assessed surveyors focussed on those habitats which were mentioned in the IoS.

#### 2.3.3.6 Field surveyors

The field methodology was piloted on four farms and the protocols refined accordingly. Early field assessments were undertaken by a few individuals and a full training event for all surveyors was held in early May. Field surveyors were all highly experienced ecologists, with extensive experience in ecological surveying and monitoring, and an in-depth understanding of habitats and vegetation communities. They also had very good knowledge and understanding of current and past agri-environment schemes and agreement options and were experienced in communicating with landowners.

#### 2.3.3.7 Note on SSSIs

Of the 102 sample HLS agreements, 35 were wholly or partly SSSIs. NE developed an Integrated Site Assessment programme to assess the condition of SSSIs at the same time as the effectiveness of management under Environmental Stewardship. (Environmental

<sup>&</sup>lt;sup>2</sup> For a full list of FEP habitat/feature codes and descriptions, see Appendix 2.

Methodology \ Interviews

Monitoring in Natural England 2012). This is based on the principles of Common Standards Monitoring as developed by the Joint Nature Conservation Committee (JNCC) (2004) whereby those special features (e.g. habitat, species, or earth science feature) for which the site was designated are assessed to determine whether they are in a satisfactory condition. Key attributes of the feature (e.g. extent, quality, supporting processes) are identified and targets set for each. If all the targets are met, the feature is in favourable condition. Each SSSI monitoring unit therefore has its own set of criteria by which it is monitored in addition to the IoS which apply to any part of it which falls within an HLS agreement. It was not part of the remit of this project to assess the SSSI condition criteria, which were not therefore provided in the dossiers to the surveyors. However, most HLS options which occur within SSSIs include an IoS which requires the SSSI condition criteria to be met so that the SSSI unit is of 'favourable' condition. Our surveyors were not required to assess this IoS so it has been excluded from the analysis.

#### 2.4 Interviews

In order to gather data on agreement holder understanding for this project the intention was to undertake a face-to-face interview with as many of the sample agreement holders (AHs) as possible. For this purpose a structured questionnaire and accompanying letter was developed and submitted to Defra's Survey Control Liaison Unit for approval (Appendix 4). The approved questionnaire and subsequent field survey provided a sample of 102 agreement holders. Originally 104 were interviewed but two were withdrawn as no corresponding fieldwork data were obtained.

All of the interviewers from within the consortium were trained, with most attending an event in Gloucester in January 2014. A structured process of informing and contacting the HLS agreement holders was developed. All agreement holders were sent an introductory letter from Natural England (see Appendix 4). The agreement holder was then contacted by the interviewer on the phone to arrange a convenient time for the interview. Before the interview the interviewer familiarised themselves with each HLS agreement by reading and analysing the maps and documents obtained from NE via the agreement dossiers. This included:

- Reading the 'justification of the agreement' documents where there is one;
- Reading the current documentation outlining the agreement (Agreement Document Part 3) and the work outlined under each of the options, especially those chosen for closer examination in the interview;
- Printing off the option summary which highlights the selected options, the land parcel and the capital items that link to these.
- Printing off the current agreement map (Agreement Document Part 7) showing the options in colour on A3 paper.
- Locating these options and the land parcels to which they relate on the map.

Methodology  $\setminus$  Evaluation

Once the interview was complete the survey responses were entered on to the database and the completed interview form was stored with the annotated maps copied and passed to the field surveyors.

The interviews were developed to:

- 1. Provide a thorough assessment of the role that advice and support played in the establishment of the HLS agreement;
- 2. Establish the level of agreement holder understanding and the importance they place on the advice and support received;
- 3. Consider whether the advice and support was appropriate, relevant and assisted the agreement holder to understand the requirements of the HLS agreement; and
- 4. Assess the impact of the advice and support on the interventions and the achievement of high quality environmental outcomes.

Agreement holders were reassured that the survey was confidential and details of individual questionnaires and any outputs from the research would not identify anyone taking part in the research and the data would only be used for this project.

The questionnaire was in 4 parts:

-Section 1 covered the holding/farm business,

- -Section 2 provided an overview of their engagement with agri-environment schemes (AES),
- -Section 3 reviewed the overall HLS agreement and associated processes,
- -Section 4 focused on the advice and support received from different parties and looked at up to four options in detail.

Where permission was granted an audio recording of the interviews was made, solely for the purpose of providing a basis for checking important points that come up during the interview. Most interviews took about an hour to an hour and half to complete.

#### 2.5 Evaluation

There are three elements to the evaluation of this work:

- 1. Agreement level assessment, covering:
- The appropriateness of agreement establishment, based on field observations and
- The extent of agreement holder understanding of and engagement with intended agreement outcomes, obtained through interviews.
- 2. Comparative analysis of the findings of this investigation and of the NE QA exercise.

The evaluation described in this section aims to test the relationship between input components of agreement set-up from interviews with agreement holders, and outcomes (set-up), as evidenced by the field survey assessment. It draws on the data and analysis from Chapters 4 and 5 and considers the high-level evidence of a correlation between agreement holder knowledge and/or advice (described as 'input' variables) and the quality of agreement set up.

Methodology \ Evaluation

Interview scores were provided for each agreement by the research team, covering the following:

- AH characteristics
- Need for advice/influence of advice
- Advice input (quality/quantity/timeliness etc.)
- Relationships with advisers
- Other influencing factors

Analysis of the full interview responses provides a wider context in order to unpick and interpret the scores in terms of the impact of advice and support on the agreement set-up (and likely environmental outcomes ultimately). The metrics for the quality of agreement set-up are based on the site visits and specifically scores for:

- FEP code
- Option selection
- Indicator of Success (IoS) type and level

For the comparative analysis with the NE QA exercise, field survey scores for each agreement/option were compared with those from the internal NE QA exercise. The NE desk exercise is based on the following four elements:

- i. Right place targeting and FEPs must identify the places which maximise environmental outcomes for our investment.
- ii. Right options / management the agreement must use the right options for the features and clearly explain the objectives, the required management and how success will be judged.
- iii. Right process Genesis and other agreed processes must be followed in order to satisfy audit trails.
- iv. Compliance the agreement must comply with EU regulations and fit within the programme and present no accreditation risk.

Agreements have been scored by NE against these four elements as a whole but concentrate on process and compliance, since there was limited capacity for testing 'right place' and 'right options' as part of a desk exercise. Conversely, for our analysis there is a lack of comparable data from the interviews and field survey on process and compliance, so we have scored the agreements on the following three elements (from the NE QA exercise Check Sheet):

- For each option have the relevant features been identified from the FEP and appear at the top of the prescription?
- Have all key features covering the target/theme objectives been stated and addressed? (evidence from FEP)
- Have the correct options and capital works been chosen and applied in the right places to manage the key features?

Methodology \ Evaluation

These criteria are colour-coded on a 4-point colour (RAG) scale in the check sheets. These were converted to a numeric scale where 0=red; 1=red/amber; 2=amber/green and 3=green and then averaged to provide an overall NE QA exercise score. This was compared to the average field survey scores for appropriate IoS (Type and Level) and for FEP Scores (feature code and option selected) using the Spearman's rank correlation.

#### 2.5.1.1 Metrics for agreements

For each agreement/option, evaluation scores were given to the following input (farmer characteristics, need for advice, advice and support input, and relationship with advisers) and set-up (agreement establishment) indicators. These are described below for input and set-up indicators.

<u>Agreement holder</u> (AH) characteristics are represented by a range of indicators (scored on a 1-5 scale), using the average score of the following:

- AH ownership of decision to enter agreement
- AH influence on selection and placement of agreement options
- AH knowledge of agreement objectives and IoS
- AH commitment to agreement outcomes
- AH capacity to deliver agreement outcomes
- AH perspective on agreement success

<u>Advice input</u> reflects overall advice and support provision and is also a composite indicator (scored on a 1-5 scale), using the average score of the following:

- Quantity of advice and support received
- Quality of advice and support received
- Timeliness of advice and support received
- Consistency of advice and support change of adviser or advice

Need for advice is also an input indicator, and is used to reflect scale of change or the complexity of management. The latter is an indicator on its own, based simply on the number of options in an agreement plus the total number of capital items rather than the extent to which they are easy or difficult to deliver. It also informs our understanding of other driving factors for the delivery of outcomes.

Relationship with advisers is an input indicator on the basis that this can affect the level and effectiveness of advice and support. As a number of farmers interviewed did not use third party advisers, relationships with advisers were represented by the self-assessment scores given to the relationship with NE officers only.

For <u>agreement establishment</u>, four indicators were used and scored for all options on each agreement.

- Has the correct FEP code been used (scored as '0' or '1')
- Has an appropriate option been applied (scored on a three point scale 0-1-2)

Methodology \ Data capture

- Appropriateness of IoS in terms of the type of indicator (scored on a three point scale 0-1-2)
- Appropriateness of IoS in terms of the level at which it is set (scored on a three point scale 0-1-2)

At the agreement level, the average scores for the four set-up indicators of all options included were used to represent the overall establishment of the agreement. The agreement-level score is a combination of multiple FEP codes/options and for each option there may be multiple IoS. The number of features assessed, number of FEP codes, and number of measureable IoS varies by agreement, but are treated with equal weight.

#### 2.5.1.2 Correlation analysis

The relationship between input and set-up indicators was tested using Spearman's rank correlation, which is the non-parametric equivalent of the Pearson correlation and appropriate for ranked ordinal data. The following matrix illustrates the correlations tested between each paired input/set-up indicators.

|  | Set-up Indicators |             |          |           |  |
|--|-------------------|-------------|----------|-----------|--|
| Input Indicators                           | FEP code          | Appropriate | loS type | IoS level |  |
|  |                   | option      |          |           |  |
| AH characteristics (a composite indicator) | х                 | Х           | Х        | Х         |  |
| Need for advice                            | Х                 | Х           | Х        | Х         |  |
| Advice input (a composite indicator)       | х                 | Х           | Х        | Х         |  |
| Relationship with NE officers              | х                 | Х           | Х        | Х         |  |

Coefficients of correlations between each pair were presented and their statistical significance tested. Data has been plotted in graphical form and outliers investigated to understand the reasons for departure from general trends

The focus of the evaluation was to understand the relationships between farmer characteristics, advice and agreement establishment and to establish if there was a relationship between the assessments of quality assessed by the NE QA desk-based exercise and the quality of agreement establishment assessed in the field. A matrix of the scores was used to run Spearman's Rank Correlation analyses to test for significant relationships. The main hypotheses examined were:

- H1. The understanding, commitment and capacity of the AH will materially affect the quality of the agreement set up.
- H2. The appropriateness, quality and timing of advice input to establishing an HLS agreement will materially affect the quality of the agreement set up.
- H3. The NE QA exercise scores are an effective indicator in highlighting high-risk cases where agreement set-up has not optimised key features from the FEP and/or allocated appropriate options and capital works.

Methodology \ Data capture

#### 2.6 Data capture

Interview and field survey access databases were developed to ensure that all data were recorded in a strictly standardised format as soon as possible after data capture. Databases were pre-populated with the respective options selected and, for the fieldwork the Indicators of Success and FEP (see section 2.3.3) condition criteria associated with each parcel to be assessed. The field database was loaded onto hand-held electronic devices to allow direct data entry in the field. The field database performed basic calculations to summarise data entered and allow surveyors to answer questions about the feature type and relevance of IoS in the field.

Overview of Sample / Sample agreements

#### **3 OVERVIEW OF SAMPLE**

#### 3.1 Sample agreements

The sample of agreements was selected by Natural England (NE) across seven regions (North East and Yorkshire & Humber combined because of low numbers of new agreements in these regions during the period of survey) and stratified to reflect the number signing new agreements in each region during the NE Quality Assurance (QA) exercise timeframe. A total of 112 agreements were assessed by the QA exercise for adherence to NE process, with assessment being carried out within one month of the agreement start date. Only ten of the agreement holders in this original sample could not be contacted or were unwilling to fully take part in this project. Therefore a total of 102 agreements were visited for both interview and field survey. Agreements were selected by NE from across England, however agreements were not geographically evenly distributed across the country. The locations of agreements visited for both interview and field survey in this study is presented in Figure 2.

A total of 258 core options were assessed across the 102 agreements (Table 1). In addition, supplementary options (which can be used in conjunction with core options) (47 parcels) and capital items (which may or may not be inherently linked to delivery of the core option) (80 parcels) were assessed where they were applied to the specific parcel assessed under each core option.

| Option code | Description of option/group of options       | No. in Sample | No. Assessed |
|-------------|--|---------------|--------------|
| НВ          | Boundary features                            | 12            | 5            |
| HC7         | Maintenance of woodland                      | 24            | 10           |
| HC8         | Restoration of woodland                      | 22            | 18           |
| HC other    | Trees, woodland and scrub                    | 42            | 28           |
| HD          | Historic and landscape features              | 3             | 1            |
| HE10        | Floristically enhanced grass buffer strips   | 16            | 10           |
| HF12        | Enhanced wild bird seed mix plots            | 17            | 10           |
| HF other    | Arable land – margin options                 | 25            | 10           |
| HG          | Arable land – crop options                   | 6             | 3            |
| HJ          | Protect soil and water                       | 3             | 3            |
| HK6         | Maintenance of species-rich grassland        | 24            | 10           |
| HK7         | Restoration of species-rich grassland        | 41            | 36           |
| HK15        | Maintenance of grassland for target features | 48            | 35           |
| HK16        | Restoration of grassland for target features | 15            | 14           |
| HK other    | Grassland                                    | 21            | 20           |
| HL10        | Restoration of moorland                      | 14            | 13           |
| HL other    | Moorland and upland rough grazing            | 7             | 5            |
| НО          | Lowland heathland                            | 6             | 6            |
| HP          | Inter-tidal and coastal                      | 2             | 2            |
| HQ7         | Restoration of fen                           | 11            | 8            |
| HQ other    | Wetland                                      | 18            | 11           |

| Table 1 | Occurrence of core options in the 102 agreements and assessed in this study <sup>1</sup> |
|---------|--|
|---------|--|

<sup>1</sup> Full details of all individual options are in Appendix 1.


Overview of Sample  $\,\setminus\,$  Description of data

Figure 2 Locations of the 102 agreements in the sample

## 3.2 Description of data

#### 3.2.1 Representativeness of sample compared to the wider population of HLS

Overall sample analysis was undertaken concerning holding size. The comparative data were gathered for all the Higher Level Stewardship (HLS) agreements signed during the same period as this survey, namely from September 2012 to the end of 2013.



Figure 3 Total Area of Holding by Sample and Total HLS population

<u>Figure 3</u> shows that almost two-thirds of the 102 farms in the sample (63%) were under 200 ha and three-quarters were under 300 ha (75%). However, there were some very large farms in the sample as well (5 were over 1,000 ha). The average farm size was 261 ha with the smallest being less than a hectare and the largest over 1,900 ha. Comparison with the total population of 4,166 HLS, agreements signed during this period shows a similar spread of figures under 200 ha (72%) and similar under 300 ha (73%). There are more, smaller (under 100 ha) agreements in the total population (50%) compared to this sample (35%). However overall, comparison suggests that the 102 agreements sampled are representative of the total population for this period.

## 3.2.2 Holding and agreement holder characteristics of the sample

The majority of farms in the sample were owner occupied (61%) with a fifth mainly rented (21%) and 11% having mixed tenure arrangements. The other category (6%) was made up of agreements on common land.

Agreement holders were asked to indicate their farm type. The number identifying themselves as 'upland' and 'lowland beef and sheep' farms (26 and 25% respectively) and

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'arable farms' (18%) shows that they were well represented in the survey in relation to the national population of these farm types. However, only 3 'dairy' farms were surveyed, reflecting the challenges in attracting agri-environment scheme (AES) agreements on dairy farms. The largest proportion of agreement holders (27%) classified their farms as 'other'. This would have included those who did not consider themselves to be a farm and will be examined in more detail below.

When asked to classify their holding as agricultural, non-agricultural or non-commercial, over three-quarters (79%) placed the holding in the agricultural businesses category. Sixteen percent were classed as non-commercial and 5% as non-agricultural. The respondents classified themselves and the latter group tended to include small holdings and other businesses where there might be some land management activity but the main commercial interests were elsewhere, e.g. building firm or landscaping business.

Agreement holders were asked to identify the proportion of their business income (Including AES and Single Payment Scheme (SPS)) which came from the holding. Almost two-thirds of agreement holders indicated that they rely on the holding for all or most of their business income (64%). Under a fifth (16%) receive very little or none of their business income from the holding. A fifth (20%) receive half or just under half from the business.

The average age of agreement holders was 53 years. The youngest was 28 and the oldest was 82. Only 11% were under 40 and one-fifth were over 65 (21%).

All respondents were asked if a member of the family would take over the business when they retired. A third of agreement holders (35%) are confident (definitely or very likely) that succession will take place with a further 28% suggesting that succession is possible. However, it is likely that at least one quarter of holdings will not be retained through succession. Just over 10% didn't know at this point in time. No data were collected in 23 cases, because the issue of succession was not relevant to the respondent. Most of these were not farms and were managed by environmental Non-Government Organisations (NGOs); where they were farms the respondent might have been a farm manager or the tenure arrangements did not allow for succession.

When asked what changes they were considering for the business in the next 5 years, half the agreement holders indicated that they were not planning any major changes (52%). A substantial proportion of agreement holders said that they were planning to grow (30%) or diversify (12%) their businesses. Examples of diversification included:

"hoping to add in a building and to convert 100 acres into organic arable and grass, need to make sure that livestock are viable so might include sheep to broaden range of products in the farm shop."

"Possibility of having solar park, Using redundant farm buildings for entertainment. Also currently expanding having just bought more land".

Examples of growing the farm business included:

"Agent offers advice across the business, looking to add in woodchip into enterprises so diversifying as well as growing/intensifying

"Improve both sheep and beef enterprises. Change age structures. Beef enterprise: decrease numbers but fatten calves (sold at 1 year at present). Move

towards selling more finished stock. Sheep enterprise: Buy younger cross-bred ewes. Keep for longer."

In conjunction with the focus on advice and support the respondents were asked about other advice and support they received as part of their business or management activity. Respondents were offered four areas in which they might receive advice (Financial, Production, Marketing and Environment). Just under one-quarter of agreement holders (24%) did not receive advice and support. Just over a fifth (21%) received advice in one area, meaning that over half of the sample (56%) received advice on multiple business themes. Respondents were asked to select from categories to describe the type of advice they had received. Over half the respondents received financial (56%) and production (52%) advice. Under half (42%) received advice on Environmental aspects, this was over and above the advice and support received under HLS but covered advice from Catchment Sensitive Farming (CSF) or similar programmes. Of those who received environmental advice (43 respondents in all) most gave some further details; 23 agreement holders did so for 'habitats', 15 for 'other reasons' and 3 for 'buildings'. Only a fifth (21%) received advice on aspects of marketing.

All of the respondents were asked if they were a member of an environmental organisation, and if so to name the organisations; up to four were recorded per respondent. What counted as an environmental organisation was left to the judgement of the agreement holder and no prompt was given. Overall 42 said that they were not (41%) a member of an environmental organisation and 60 said that were members of at least one (59%). Most (38) were members of a single environmental group, 13 two, 5 three and 4 were members of four or more such organisations. In terms of the organisations identified the responses covering groups with more than 5 mentions were as follows:

- 25 for specific conservation groups: County Wildlife Trust (15), Royal Society for the Protection of Birds (RSPB) (10)
- 29 for game or broad environmental groups: British Association for Shooting and Conservation (BASC) (7), Farming & Wildlife Advisory Groups (FWAG) (10), Game and Wildlife Conservation Trust (GWCT) (6), National Trust (NT) (6)
- 20 for farming related bodies: Country Land and Business Association (CLA) (7), National Farmers Union (NFU) (13).

The interview also sought to establish the agreement holder's background experience in agri-environment scheme activity. It was anticipated that a large proportion of the sample would be made up of those leaving the classic schemes (Environmentally Sensitive Areas (ESA) and Countryside Stewardship (CSS) and entering HLS. Of the 102 agreements in the sample:

- 38 joined from CSS (36) or Wildlife Enhancement Scheme (2) (37%)
- 26 joined from ESA agreements (25%)
- 19 were involved with Entry Level Stewardship (ELS) or woodland schemes before entering HLS (19%)
- 19 had no AES experience and entered HLS directly (19%).

Data derived from the documentation and the sample selection process reveal that only 34% of agreements had an SSSI within the agreement area. Agreements in Yorks/Humber & North East, South East and East Midlands were least likely to have an SSSI, whereas 61% of agreements sampled in the North West had an SSSI (<u>Table 2Table 2</u>).

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| Region                | No. agreements<br>in the sample | No. with SSSI | % of agreements<br>with SSSI |
|-----------------------|---------------------------------|---------------|------------------------------|
| East Midlands         | 14                              | 3             | 21                           |
| East of England       | 15                              | 6             | 40                           |
| Yorks & Humber and NE | 15                              | 2             | 13                           |
| North West            | 18                              | 11            | 61                           |
| South East            | 15                              | 3             | 20                           |
| South West            | 11                              | 5             | 45                           |
| West Midlands         | 14                              | 5             | 36                           |
| Total                 | 102                             | 35            | 34                           |

### Table 2Number of agreements with SSSIs

The final characteristic of sample agreement holders which was assessed was their agricultural characteristics. This was done by bringing together the responses to 5 variables; the type of business, importance of agricultural income, business plans, succession and holding size. Three categories emerged from this process, agriculture dependent, agriculture non-dependent and non-commercial. The breakdown across the sample is shown in Figure 4 below.



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## Figure 4 Agreement holder characteristics according to agricultural dependency

The overriding outcome of this analysis of agreement holder responses is that commercial farm businesses dominated the sample making up over three-quarters (78%) of the 102 agreements. However, further analysis of these farms confirms that they can be sub-divided into two categories with distinct characteristics. The larger group (65%) of commercial farm businesses (Agriculture dependent) are heavily reliant on agricultural enterprises, including

AES and SPS payments, for at least half their business income. This category also had the largest average farm size (328 ha) and was well represented among the main conventional farming types (arable, lowland and upland, beef and sheep and dairy).

The smaller category (13%) of commercial farm businesses (Agriculture non-dependent) did not rely on agriculture for the majority of their business income. These farms also tended to be smaller in size (av. 216 ha) than the agriculture dependent category and also a greater proportion of businesses in the 'other' category in terms of enterprise type, suggesting they were large estates or that the farm was a small part of a larger business.

The third group is a distinctive group of agreement holders (22%) who said that their businesses were non-agricultural or operated on a non-commercial basis. The agreement holders were often environmental organisations, such as the National Trust or County Wildlife Trust. Three-quarters of the agreement holders in this group said they obtained very little or none of their business income from agriculture and they tended to manage smaller land holdings (av. 73 ha) than the two commercial farm business categories. This category tended not to be involved with conventional farming enterprises and over two-thirds of agreement holders (71%) classified their land holdings in the 'other' category in terms of enterprise type.

#### 3.3 Discussion

This work has considered a sample of new Higher Level Stewardship (HLS) agreements which started in the final year of the scheme. Although comparison of holding size with the full population of HLS agreements which started during this period suggests that the sample is representative of HLS the agreements which began in 2013 which started during this period, it is not necessarily representative of the population of HLS agreements as a whole because of differences in the agreements that entered HLS between 2005 and 2103; by the last year of HLS, applications largely originated from those who had been invited to apply by NE. The proportion of agreements with an SSSI was much lower (34%) than in the sample of new agreements (64%) assessed between 2009 and 2011 (Mountford *et al.*, 2013) suggesting that the current sample was not entirely representative of HLS agreements. However, the proportion of agreements in Target Statement areas (see section 4.3) was very similar (64%) to Mountford *et al.* (2013) (68%) and the proportion of agreements entering HLS from classic schemes (ESA and CSS) was similar (63%) (see section 3.2.2) to a study of agreements signed before 2009 (58%) (Boatman *et al.*, 2015).

The sample reflects the farming and land owning population by being strongly agricultural, mostly owner occupied and dependant on the farm business for their income. In terms of farm type there were few dairy farms reflecting the challenges of attracting this type of farm business into AES agreements. Succession was likely in a third of cases but unlikely in a quarter of others with 23 cases where it was not relevant, because of management or land tenure arrangements. The business side of the holding is not likely to change in the next five years in over half of the cases but nearly as many said they were planning to grow or diversify.

Three-quarters were used to receiving advice from other sources, but 24% did not receive any such advice. Specifically 42% received advice on environmental issues not including that which they received for their HLS agreement. A large proportion of the sample (63%)

## Overview of Sample \ Discussion

entered HLS from the classic schemes (CSS and ESA). This group might be seen as a set of AES repeaters. Just over a third (38%) only had experience of Environmental Stewardship or woodland schemes with nearly a fifth (19%) of these entering an AES for the first time.

Bringing a number of these variables together reveals that, the sample is dominated by commercial farm businesses (78% of the 102 agreements); however, further analysis of these farms confirms that they can be sub-divided into two categories with distinct characteristics. The larger group (65%) of commercial farm businesses rely on the holding for most of their income and tend to be larger in size. The other, smaller category (13%), of commercial farm businesses is less reliant on the agricultural income and tends to be smaller in size. The third group is a distinctive group of agreement holders (22%) who said that their businesses were non-agricultural or operated on a non-commercial basis and much smaller in size. These agreement holders were often environmental organisations, such as the National Trust or County Wildlife Trust.

Chapter 4 / Accuracy of Farm Environment Plan Codes

## **4 QUALITY OF AGREEMENT SET-UP AND ESTABLISHMENT**

## 4.1 Accuracy of Farm Environment Plan Codes

Most (84%) of the Farm Environment Plan (FEP) codes recorded in the agreement which were assessed were judged to be correct by the field surveyors. Agreement FEP codes were largely those recorded on the FEP map, however a small number had been updated, or were only recorded, on part 2 of the FEP (the Environmental Features Datasheet). Because the field assessments undertaken here aimed to establish the quality of the agreement set up as a whole, rather than just the quality of the FEP, where there was a discrepancy between the FEP map and the FEP part 2, the agreement was assessed against the FEP part 2.

Assigning the precise FEP code was difficult in some circumstances, particularly where the feature was borderline between two categories or where the timing of field visit affected the surveyor's ability to identify the appropriate FEP code. If the field surveyor was unsure, the agreement was generally given the benefit of the doubt.

East of England 'G15 correct and still okay managed under this category, but more species rich than average grazing marsh. It could be argued that G06 might have been used in addition to the G15 category - several indicators present'.

East of England 'hard to tell at the moment whether wet enough for G13 - currently no rushes and not tussocky - only scrape shows signs of providing 'wet' habitat'.

The FEP code recorded by the surveyor sometimes did not match the FEP code in the agreement, but was still reported as correct for the purposes of this report. This occurred either where no code was required on the FEP or where the agreement management had resulted in early and major change to the feature. In the current edition of the FEP manual (Natural England, 2010) no FEP code is required for species-poor improved grassland (this was identified as G01 in previous versions of the manual). In order to assess whether this grassland had been correctly identified as species-poor, field surveyors recorded a FEP code for all habitats including G01. Where a code was not recorded on the FEP, but was recorded as G01 by the field surveyor, this was considered correct for this report. In addition, arable land (A01) is only recorded on the FEP map, not on the FEP part 2. Where a map was missing, A01 would not have been evident from the documentation but was recorded by field surveyors and was considered correct for this report. Discrepancies between FEP codes also occurred where new features had been created as part of the agreement, for example where grass had been sown on arable land to create margins or reduce erosion risk, and where major capital works had been carried out early in the agreement (e.g. felling of trees). The purpose of this part of the work was to assess the quality of the original FEP rather than to record major expected changes in features, therefore where it was obvious that the original FEP code had been correct at the time, they were assessed as correct for the purpose of this report.

A total of 59 of the 368 features assessed were given different FEP codes by the field surveyor. Features that were least well recorded in the agreement were: grasslands relating to plant species diversity (G01-G09) and wetlands, and, to a lesser extent, trees and heathland/moorland (Figure 5Figure 5).



Chapter 4 \ Accuracy of Farm Environment Plan Codes

Figure 5 Correspondence of FEP codes in the agreement with those assessed by field surveyors for feature/habitat groupings where n ≥10

On over half the agreements surveyed, all FEP codes assessed had been accurately recorded in the agreement and on a further 37 agreements, half or fewer FEP codes were recorded inaccurately (Table 3). FEP codes had been very poorly recorded on six agreements, but on these holdings, errors often included both inaccurate feature identification and missing data. The Natural England (NE) Quality Assurance (QA) exercise assessed these agreements as 'amber red' (4 agreements) and 'amber green'<sup>3</sup> (2 agreements) which were the largest categories in the sample (see section 1.3). On the two holdings where no FEP codes were recorded correctly, only one FEP code was assessed and both errors related to inaccurate identification of grassland.

 $<sup>^{3}</sup>$  NE QA exercise scores were allocated on a four point RAG scale where: Green = no issues; Amber/green = minor issues; Amber/red = significant issues or lack of evidence to show decisions reached; Red = significant concerns.

| $C_{11}$ | Chapter 4 \ | Accuracy | of Farm | Environmen | nt Plan | Code |
|----------|-------------|----------|---------|------------|---------|------|
|----------|-------------|----------|---------|------------|---------|------|

| Table 3 | Accuracy of feature recording on individual agreements. |
|---------|---|
|         |   |

| % of FEP codes assessed that were incorrect | No. of agreements |
|---|-------------------|
| 0   | 59                |
| 1-25  | 18                |
| 26-50                                       | 19                |
| 51-75                                       | 4                 |
| 76-100                                      | 2                 |

. .. . .

There was a wide range of reasons for differences in assessment of FEP codes. Full details of FEP codes recorded by field surveyors which did not match those in the agreement are presented in Table 4 and Appendix 3. FEP codes recorded in the agreement that were consistently endorsed by the field surveyors are not presented.

Reasons for differences in recorded FEP codes were both generic and related to individual features or groups of features. Most individual FEP codes were surveyed on only a small number of agreements. Of those FEP codes with a reasonable sample size, G06 (Lowland meadows - BAP habitat) and G02 (semi-improved grassland) were most commonly recorded incorrectly.

|                    | correct | ly.  |          |  |
|--------------------|---------|------|----------|--|
| -                  |         | FE   | P code   |  |
| Code in Agre       | ement   | conf | irmed by | Incorrect code recorded in agreement                           |
|                    |         | su   | rveyor   |  |
| FEP code           | n       | n    | %        | New code as assessed by field surveyor with number of          |
|                    |         |      |          | occurrences  |
| Blank <sup>1</sup> | 10      | 5    | 50       | G02 (2); M08 (1); V05 (1); W04 (1)                             |
| F02/F09            | 8       | 7    | 87       | V05 (1)  |
| G02                | 46      | 28   | 61       | G01 (8); G05 (1); G06 (1); G09 (1); G15 (1); M01 (4); M08 (1); |
|                    |         |      |          | W04 (1)  |
| G05                | 4       | 1    | 25       | G02 (2); G04 (1)   |
| G06                | 31      | 17   | 55       | G01 (2); G02 (11); G05 (1)                                     |
| G07                | 8       | 7    | 87       | G02 (1)  |
| G12                | 6       | 5    | 83       | G02 (1)  |
| G13                | 6       | 5    | 83       | G02 (1)  |
| G14                | 10      | 9    | 90       | G12 (1)  |
| H02                | 8       | 6    | 75       | H01 (2)  |
| M01                | 9       | 7    | 78       | G02 (1); M08 (1)   |
| M02                | 3       | 1    | 33       | M01 (2)  |
| T06                | 11      | 8    | 73       | F02/F09 (1); T07 (1); T08 (1)                                  |
| T08                | 27      | 25   | 93       | T06 (1);V05 (1)  |
| W04                | 10      | 7    | 70       | G01 (1); M03 (1); T08 (1)                                      |
| W05                | 3       | 2    | 67       | T08 (1)  |

## Table 4 Inconsistencies in FEP codes recorded by field surveyors against individual codes in agreements. Other FEP codes assessed were consistently recorded

<sup>1</sup> Could be A01, G01 or blank and still be correct

#### Chapter 4 \ Accuracy of Farm Environment Plan Codes

Because sample sizes for individual feature codes were often small, we present a summary of the main issues here, highlighting where these relate to a specific feature.

#### 1. Poor mapping and identification of habitats present at a sub-parcel scale.

A small number of discrepancies were simply omissions which had not been recorded on the FEP map or in the FEP part 2. This included parcels that had no FEP code and sub-parcels mapped, but not recorded. On one holding, multiple condition codes had been allocated in the FEP part 2, but there was no map of where each code applied.

Recording of parcels with multiple FEP habitats, particularly those in large upland parcels was challenging, both in terms of identifying all habitats of interest and mapping them accurately. Small but sometimes frequently occurring features such as flushes were often overlooked. Transitions between habitats also made mapping and accurate feature identification on the ground difficult. However, these issues are not necessarily clear from the method of recording, therefore it is difficult to be specific about the frequency that such errors occurred.

North West: FEP code M06 'Difficult area to map : FEP map shows M06/M02 reflecting rarity of dwarf shrub heath; surveyor saw it as a mix of M01, M02, edge of M06, & M08 flushes - might be described as degraded M06'.<sup>4</sup>

#### 2. Inflation of feature quality

A common issue was the inflation of feature quality in the agreement and was particularly relevant to grassland habitats categorised by their botanical composition (G01-G09). This is described separately here, but there is overlap with the mapping/sub-parcel habitat identification issue above.

Of the 18 features described as GO2 (semi-improved grassland) in the sample agreement options but given a different code by the project surveyor, eight were classed by the surveyor as GO1 (species-poor improved grassland). Often, these swards were below the limit for ryegrass and clover cover, but did not meet the criteria for species number or wildflower cover. The remainder were borderline, but were assessed as other grassland habitats.

Where the field surveyor disagreed with the FEP code for G05 (lowland dry acid grassland – BAP habitat), G06 (lowland meadows – BAP habitat) and G07 (purple moor-grass and rush pastures – BAP habitat), these were usually considered to be less diverse than expected and were reclassified as G01 (species-poor improved grassland) or G02 (semi-improved grassland). Some were degraded examples of the feature originally identified and may have had potential for restoration. However, there were a number of examples where they were so degraded that the FEP code could not be endorsed by the project surveyor even as condition C, because indicator species were insufficiently common.

 $<sup>^{4}</sup>$  M01 = grass moorland and rough grazing; M02 = fragmented heath; M06 = blanket bog – BAP habitat; M08 = upland flushes, fens and swamps – BAP habitat.

Chapter 4 \ Accuracy of Condition Scores

South East 'GO6 definitely aspirational. Field currently had remnant areas of GO6 but only 3 indicator sp. and was mainly GO2'.

West Midlands G06 in agreement 'current state = G02 - mixed grasses, not much ryegrass, but few flowers – Lathyrus pratensis (occasional) is the only G06 indicator; has been neglected - lot of Holcus lanatus & Arrhenatherum elatius - has potential'.

In addition, two areas of M02 (fragmented heath) were considered better described as M01 (grass moorland and rough grazing).

Other parcels had been classified on the basis of a minority area of more interesting habitat, but the parcel as a whole did not meet the criteria of the FEP code assigned in the agreement. This may have occurred to facilitate entering the whole parcel into a particular option.

#### 3. Difficulties of classification against FEP codes

Some features were misclassified because there is a lack of clarity in the criteria for certain FEP codes, because the FEP surveyor apparently did not fully understand the criteria or because features were borderline between FEP categories.

Four areas categorised in the agreement as GO2 (semi-improved grassland), were considered better described as MO1 (grass moorland and rough grazing). It seems likely that the FEP surveyors had missed the instruction in the FEP manual (Natural England, 2010) under GO2 to record species poor acid grassland in a Severely Disadvantaged Area as MO1 rather than GO2. Similarly, one G12 (lowland habitat for breeding waders) had been misclassified as G14 (upland equivalent).

There was some confusion surrounding whether earthworks were considered above (H01) or below ground (H02) historic features.

FEP codes for woodland/tree features seemed to be difficult to apply consistently, although the frequency of individual issues was low. Native, planted woodland was difficult to classify because of confusion between the classifications for T06 'mixed woodland' and T08 'native semi-natural' woodland.

East Midlands T08 'Classed as FEP code correct but comment is: 'this is clearly not semi-nat but planting of native species onto arable land - but there doesn't seem to be a FEP code which fits as plantation is defined as mixed'.

The FEP 'parkland' classification seemed to be applied to land parcels with very few trees. One of the eight parcels of T03 (wood pasture and parkland – BAP habitat) assessed was a field with only six trees present, perhaps reflecting an aspiration to be parkland rather than the current status.

One boundary hedge (F02) was thought to be better described as a linear scrub feature (V05) because it was greater than 5 m wide and had grassy areas within it. Conversely a line of trees described as mixed woodland (T06) on the FEP was considered to be better described as a field boundary.

West Midlands 'More a line of trees along a stream than a mixed woodland. All the trees and shrubs are native'.

Chapter 4 \ Accuracy of Condition Scores

#### 4.2 Accuracy of Condition Scores

An assessment of condition against specified criteria is required for most FEP features. Comparison of condition codes allocated in the agreement and by field surveyor was made for a subset of 150 FEP codes on 64 agreements. No comparisons could be made where:

- the FEP code assessed by the field surveyor did not match that in the agreement (60)
- no condition code was required (A01, G01, G02, M01) (85)
- Sites of Special Scientific Interest (SSSI) condition scores were given in the agreement for which the field surveyors did not have the criteria (37)
- codes were missing from either the agreement or the field survey (36)

A condition score (A to C) is allocated based on the number of specified criteria that are failed (see section 2.3.3.2). For all features, condition recorded by field surveyors was evenly distributed across the three condition codes (Table 5). Small sample sizes meant that it was possible to assess very few individual options. However, G06 (lowland meadows – BAP habitat), T03 (wood pasture and parkland – BAP habitat) and T08 (native semi-natural woodland) were more likely to be classed by project field surveyors as condition C (the lowest condition category) than A (the highest condition category), whereas G14 (habitat for breeding waders – upland) and G15 (coastal and flood plain grazing marsh – BAP habitat) were more likely to be classed in this project as condition A than C.

Field survey indicated that 63% of FEP codes that could be assessed had been allocated a suitable condition code in the agreement. Similar to the categorisation of features against FEP codes, the condition codes were sometimes correct if applied to only a subset of the parcel, but could not be considered an accurate reflection of the feature as a whole. Where it was judged that the condition code was different, nearly two thirds of features were considered to be of lower quality than defined in the agreement. Figure 6 presents data against different feature types where sample size was  $\geq 10$ . Grassland for botanical diversity and moorland habitats were most likely to be considered of lower quality.

Of the 64 agreements where assessments could be made, FEP condition codes were correct for all the features surveyed on 23 agreements (36%). More than half of the codes assessed were incorrect on 21 (33%) agreements.



## Chapter 4 \ Accuracy of Condition Scores



Generally, discrepancies between agreement and field surveyor were a single condition category difference, however 5 FEP codes were recorded in the agreement as 'A' but were assessed as 'C' by surveyors (GO6 – lowland meadows – BAP habitat, GO7 – purple moorgrass and rush pastures – BAP habitat, HO1 – above-ground historic feature, TO3 – wood pasture and parkland – BAP habitat, VO5 – scrub of high environmental value) and 2 codes were recorded as 'C', but were assessed as 'A' (G13 – habitat for wintering waders and wildfowl, TO6 – mixed woodland) although the G13 could not be fully assessed against two of the condition criteria because of the time of year.

Of the 12 G04-G09 habitats (grassland for botanical interest) that were recorded in the field at a lower condition than in the agreement, ten were due to a lack of indicator species. Differences for grassland habitats for other target species were most commonly related to cover of tussocks (G11 – habitat for invertebrates, G12 – habitat for breeding waders - lowland, G13 – habitat for wintering waders and wildfowl) and scrub cover (G15 – coastal and flood-plain grazing marsh – BAP habitat).

Condition codes recorded by field surveyors for historic features largely matched those on the agreement. Where lower condition scores were recorded, differences related to scrub cover or bare ground.

Heathland and moorland habitats were recorded in lower condition than in the agreement because of low dwarf shrub heath or sphagnum cover, or because rush cover was too high.

Chapter 4 \ Targeting of Option Selection

| FEP code     | Feature description          | n   |                | Surveyed as conditi<br>different condition surv |                   | ndition<br>orded by<br>surveyo | code<br>/ field<br>or |    |
|--------------|------------------------------|-----|----------------|---|-------------------|--------------------------------|-----------------------|----|
|              |                              |     | Same condition | Higher<br>(A or B)                              | Lower<br>(B or C) | А                              | B                     | с  |
| C02/C05      | Coastal                      | 2   | 2              | 0   | 0                 | 0                              | 1                     | 1  |
| F02/F09      | Field boundaries             | 4   | 2              | 1   | 1                 | 2                              | 1                     | 1  |
| G06          | Lowland meadows              | 15  | 7              | 0   | 8                 | 1                              | 3                     | 11 |
| G04-G09      | Grassland -                  | 14  | 9              | 1   | 4                 | 4                              | 2                     | 8  |
| others       | botanical                    |     |                |   |                   |                                |                       |    |
| G15          | Grazing marsh                | 10  | 4              | 3   | 3                 | 6                              | 4                     | 0  |
| G11-G14      | Grassland – other            | 21  | 15             | 2   | 4                 | 11                             | 7                     | 3  |
|              | env                          |     |                |   |                   |                                |                       |    |
| H01          | Above-ground                 | 10  | 6              | 1   | 3                 | 4                              | 2                     | 4  |
|              | historic                     |     |                |   |                   |                                |                       |    |
| H02-<br>H014 | Historic /Landscape<br>other | 15  | 14             | 0   | 1                 | 7                              | 3                     | 5  |
| M03-         | Heath/moorland               | 13  | 8              | 0   | 5                 | 3                              | 7                     | 3  |
| M08          |                              |     |                |   |                   |                                |                       |    |
| т08          | Semi-natural                 | 14  | 9              | 1   | 4                 | 3                              | 5                     | 6  |
|              | woodland                     |     |                |   |                   |                                |                       |    |
| T01-T15      | Trees                        | 18  | 11             | 3   | 4                 | 5                              | 6                     | 7  |
| others       |                              |     |                |   |                   |                                |                       |    |
| V05          | Scrub                        | 3   | 1              | 1   | 1                 | 0                              | 1                     | 2  |
| W04-         | Wetland                      | 11  | 6              | 1   | 4                 | 5                              | 2                     | 4  |
| W08          |                              |     |                |   |                   |                                |                       |    |
| All          |                              | 150 | 94             | 20  | 36                | 51                             | 44                    | 55 |
| features     |                              |     |                |   |                   |                                |                       |    |

# Table 5Comparison of condition code recorded in the agreement and assessed by<br/>surveyors for individual FEP codes<sup>1</sup>

<sup>1</sup> Individual FEP codes presented where the sample  $\geq$ 10 and amalgamated by feature type for those <10.

Tree or woodland features were classed as lower condition due to failure against a range of criteria. Full canopy cover was not met on one T07 (landmark woodland); three T08s (native semi-natural woodland) were not fenced to exclude livestock, one had no standing or fallen dead wood and in one there was significant cover of sycamore. Issues with the two orchards (T15) were injurious weed cover and sward height.

Two lowland raised bogs (W05) failed the condition criteria for cover of bog mosses and heather and cottongrass frequency. One pond (W07) was recorded as having a lower condition category than in the agreement because it was in an improved field. One reedbed (W08) assessed was almost dry at the time of survey.

Where field surveyors categorised features as in better condition than in the agreement, the reasons were varied, but included the fact that criteria that could not be adequately assessed at the time of the field visit so some assumptions were made, field surveyors did not know which criteria had originally failed and occasionally factors that might have improved as a result of management under the agreement.

#### 4.3 Targeting of Option Selection

The monitoring for this study focussed on assessments of a selection of options. The methodology therefore did not allow an assessment of the agreement as a whole. However, where agreements were in a target statement area (64% of agreements assessed) the proportion of core options in the agreement which were prioritised in target statements was calculated (Table 6). Generally, a high proportion of core options were those prioritised in target statements (83% overall). On only four agreements were less than 50% of options also in the target statements.

| Region                | No. Farms<br>visited | No. of agreements<br>in TS areas | Mean proportion of options in TS <sup>1</sup> | Range  |
|-----------------------|----------------------|----------------------------------|---|--------|
| East Midlands         | 14                   | 8                                | 71  | 14-100 |
| East of England       | 15                   | 6                                | 83  | 62-100 |
| Yorks & Humber and NE | 15                   | 6                                | 94  | 67-100 |
| North West            | 18                   | 14                               | 88  | 50-100 |
| South East            | 15                   | 12                               | 86  | 67-100 |
| South West            | 11                   | 9                                | 84  | 50-100 |
| West Midlands         | 14                   | 10                               | 77  | 17-100 |
| All areas             | 102                  | 65                               |   | 14-100 |

#### Table 6Targeting of options in Target Statement areas

<sup>1</sup> For agreements within a target statement area.

#### 4.4 Appropriate Option Selection

Surveyors were asked to assess whether an appropriate option had been applied to each feature on each sample land parcel. A total of 258 core options were assessed against 352 FEP codes. Most options applied to features were suitable, with only 4% of assessments on ten agreements classed as 'red' (inappropriate) and 12% 'amber' (doubtful) (see section 2.3.3.3 for further details). On just over half of the agreements (53%) all the options assessed were appropriate.

When grouped by FEP code categories (Figure 7Figure 7), options were rated 'red' most commonly for grassland features (for botanical diversity and other environmental issues), historic features and wetlands. However, only one historic option was assessed. Concerns that options were being misapplied to historic features arose because they were present within parcels managed for other outcomes and the management was not necessarily appropriate for the historic feature itself, which represented only a small proportion of the land area. Options were considered doubtful (amber) for a small proportion of all FEP feature types (Figure 7Figure 7).

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Chapter 4 \ Appropriate Option Selection



When options were grouped by option type, options for grassland and arable were most likely to be classed as 'red' (inappropriate). A small proportion of options across most option groups was classed as 'amber' (doubtful).

There was no correlation between a FEP code being identified incorrectly and an inappropriate option applied. Of the 59 features given an incorrect FEP code, the option applied was still appropriate for 42 (71%) of features and was only inappropriate for 10%. For example, a feature that was GO2 (semi-improved grassland) but had been classed in the FEP as GO6 (lowland meadows – BAP habitat) had been entered into HK12 (restoration of wet grassland for wintering waders and wildfowl). Although, the feature definition was incorrect, a suitable option had been chosen, because the botanical diversity was not the focus of the option. Another field had been correctly identified as G11 (habitat for invertebrates) but had been entered into HK10 (maintenance of wet grassland for wintering waders and wildfowl). The field surveyor commented that HK16 (restoration of grassland for target features) would have been more appropriate.



## Chapter 4 \ Appropriate Option Selection

## Figure 8 Was an appropriate option applied to the habitat/feature where n≥10 (by option type). Red = inappropriate; Amber = doubtful; Green = appropriate.

Options for maintenance, restoration and creation are available for a number of habitats/features in Higher Level Stewardship (HLS). When all features that have these different levels of management were considered, there were no apparent differences in the appropriateness of option selection for maintenance, restoration and creation options (

## Table 7

Table 7). However, when only grassland options were considered, creation options were ← less well applied than maintenance options, although no statistical analysis has been done and the sample size for grassland creation is small (

#### Table 7

#### Table 7b).

Under HLS, different options are available for grassland management aimed at botanical diversity and bird populations. Grassland options for 'target features' are also available where the environmental objective may be botanical diversity, birds, invertebrates, historic features or amphibians. Grassland options specifically for botanical diversity (HK6,7,8 – maintenance, restoration and creation of species-rich, semi-natural grassland) were more likely to be considered appropriate than grassland options for birds (HK9 to HK14 – maintenance, restoration and creation of wet grassland for waders and wildfowl, however no statistical analysis has been done (Table 7Table 7c). Also, the objectives of options for target features (HK15, 16, 17) were sometimes birds and botanical diversity, however these options could not be classified against specific target features for this analysis because the target feature was not always specified and because multiple targets were sometimes listed.

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Chapter 4 \ Appropriate Option Selection

|                              |     | Nu    | mber  |       |     | % of total | _     |
|------------------------------|-----|-------|-------|-------|-----|------------|-------|
|                              | Red | Amber | Green | Total | Red | Amber      | Green |
| a) All option types          |     |       |       |       |     |            |       |
| Maintenance                  | 8   | 12    | 109   | 129   | 6   | 9          | 84    |
| Restoration                  | 4   | 27    | 133   | 164   | 2   | 16         | 81    |
| Creation                     | 0   | 3     | 11    | 14    | 0   | 21         | 79    |
| b) Grassland management leve | el  |       |       |       |     |            |       |
| Maintenance (HK6,9,10,15)    | 7   | 7     | 73    | 87    | 8   | 8          | 84    |
| Restoration (HK7,11,12,16)   | 4   | 14    | 60    | 78    | 5   | 18         | 77    |
| Creation (HK8,13,14,17)      | 0   | 3     | 5     | 8     | 0   | 38         | 63    |
| c) Grassland target          |     |       |       |       |     |            |       |
| Plants (HK6-8)               | 4   | 10    | 47    | 61    | 7   | 16         | 77    |
| Birds (HK9-14)               | 4   | 8     | 17    | 29    | 14  | 28         | 59    |
| Target features (HK15-17)    | 3   | 6     | 74    | 83    | 4   | 7          | 89    |

# Table 7Appropriateness of option selection for subsets of options relating to degree of<br/>change required and target environmental outcomes

The most common reasons for options being recorded as misapplied were: that the project surveyors assessed that parcels required a different management level (maintenance, restoration, creation), that options were applied to a larger area than was appropriate, that more cost-effective options were available or that the outcomes were too ambitious. In addition, options were applied where they were considered inappropriate for the target features.

In order to more fully present the reasons for options being assessed by the field surveyors as inappropriate or doubtful, data in <u>Table 8</u> Table 8 are presented by individual options. However, the sample size for many options is low therefore it is not possible to compare many of the percentage figures given. Where sample sizes were  $\geq 10$ , the smallest proportion of options was assessed as appropriate for HK6 (maintenance of species-rich, semi-natural grassland) and HK16 (restoration of grassland for target features).

Only one tree/woodland option was considered completely inappropriate (<u>Table 8</u>). The field surveyor considered the management level was wrong, because the parcel was under HC12 (maintenance of wood pasture and parkland) but very few trees were present. Options for woodland were classed as 'amber' for a variety of reasons. Two areas of HC8 (restoration of woodland) were in the wrong management level; one should have been maintenance, the other creation. The field surveyor questioned the decision to create parkland (HC13) from a plantation woodland.

One HC7 (woodland maintenance) was considered to be payment for no management. One HC8 (woodland restoration) was applied to very small areas of habitat.

Chapter 4 \ Appropriate Option Selection

The HD8 was considered 'amber' because there was no evidence of any archaeological features in the field or FEP, and the surveyor thought the option might have been applied simply to maintain high water levels. The HE10s were considered a low priority feature on these agreements.

Options for botanical diversity were judged 'red' usually because the habitat required greater change than implied by the option (two HK6 and one HK7). HK7 had been applied to two parcels adjacent to more valuable features and would have been more cost-effectively managed under Entry Level Stewardship (ELS) options. Four options were judged 'amber' because they were set at the wrong management level; two required a higher management level and for two parcels in HK7, maintenance would have been sufficient. On one parcel, HK7 had been applied to a much larger area than was suitable.

Similar issues occurred for grassland for target feature options. Two parcels were under options at an inappropriate management level, one option was applied to a much larger area than was valuable and one was overambitious.

Options aimed at management of wet grassland for birds were judged inappropriate for the parcels because of the field size, wetness and the presence of scrub or other woody features.

Two parcels under moorland restoration were scored 'amber'. Field surveyors considered maintenance to be sufficient on one, but that restoration was required on the other. Similarly, two parcels under heathland restoration were judged 'amber'; one required restoration, the other only maintenance. Fen maintenance would have been sufficient on two parcels under HQ7 (restoration) and on another agreement, this option was applied to a much larger area than necessary.

| Option | Option description                       | Red | Amber | Green | Total | %<br>Green |
|--------|--|-----|-------|-------|-------|------------|
| HC7    | Maintenance of woodland                  |     | 2     | 9     | 11    | 82         |
| HC8    | Restoration of woodland                  |     | 3     | 20    | 23    | 87         |
| HC12   | Maintenance of wood pasture/parkland     | 1   |       | 1     | 2     | 50         |
| HC13   | Restoration of wood pasture/parkland     |     | 1     | 7     | 8     | 88         |
| HC15   | Maintenance of scrub                     |     | 2     | 3     | 5     | 60         |
| HD8    | Maintaining high water levels            |     | 1     |       | 1     | 0          |
| HE10   | Floristically enhanced grass buffers     | 2   |       | 11    | 13    | 85         |
| HK6    | Maintenance of species-rich grassland    | 2   | 1     | 9     | 12    | 75         |
| HK7    | Restoration of species=rich grassland    | 2   | 8     | 38    | 48    | 79         |
| НК8    | Creation of species-rich grassland       |     | 1     |       | 1     | 0          |
| НК9    | Maintenance of wet grassland for birds   | 3   |       | 4     | 7     | 57         |
| HK10   | Maintenance of wet grassland for birds   | 1   | 3     | 3     | 7     | 43         |
| HK11   | Restoration of wet grassland for birds   |     | 3     | 5     | 8     | 63         |
| HK14   | Creation of wet grassland for birds      |     | 2     |       | 2     | 0          |
| HK15   | Maintenance of grass for target features | 1   | 3     | 57    | 61    | 93         |
| HK16   | Restoration of grass for target features | 2   | 3     | 13    | 18    | 72         |

Table 8Appropriateness of the option selection for individual options where not all<br/>options were considered appropriate (includes multiple assessments against<br/>multiple FEP codes)

|      |  | Chapter - | $4 \setminus Indi$ | cators of | Success |
|------|--|-----------|--------------------|-----------|---------|
| HL7  | Maintenance of rough grazing for birds | 1         | 11                 | 12        | 92      |
| HL10 | Restoration of moorland                | 2         | 23                 | 25        | 92      |
| HO2  | Restoration of lowland heathland       | 3         | 2                  | 5         | 40      |
| HQ7  | Restoration of fen                     | 4         | 5                  | 9         | 56      |

#### 4.5 Indicators of Success

A total of 1613 individual Indicators of Success (IoS) were assessed in the field. A further 404 IoS could not be assessed under the field survey methodology for a variety of reasons (Table 9).

| Table 9 | Indicators of Success which were not evaluated |
|---------|--|
|---------|--|

| Reason for omission   | n   |
|---|-----|
| IoS for supplements simply repeat those for the main option   | 34  |
| Not possible to assess the IoS with the methodology used (e.g. soil testing; information on rare breeds; regular presence of birds)               | 81  |
| IoS refer to SSSI condition for which we did not have information   | 55  |
| IoS did apply to the option in the agreement but not to the parcel surveyed (parcel specific or feature specific IoS)                             | 157 |
| No IoS surveyed because feature was not present (e.g. rotational options not yet established) or the relevant feature could not be found/accessed | 76  |

The 1613 IoS related to 263 core options and 42 supplementary options in sample agreements. They were assessed to identify if they were an appropriate type and also if they were set at an appropriate level. In general there was a lot of redundancy in the IoS because they had frequently been copied from the templates with little adjustment for the specific agreement. Thus many IoS were not relevant to the parcel (e.g. the feature mentioned was not present) or the outcomes were easily met because the IoS related to an undesirable species which was not present or was present at levels well below the threshold.

In order to analyse the data, numeric scores were allocated to the RAG categories (red = 0; amber = 1; green =2). Mean scores were calculated for each option on individual agreements using all IoS that could be assessed. Features that scored highly for the 'type' of indicator also tended to score high for the level at which the indicator was set, however, there were exceptions (Figure 9). Also, this was a subjective assessment and there was some difference between individual surveyors in how 'type' and 'level' were interpreted (see section 2.3.3.4). Often suitable indicators were included, but had not been modified from the templates to suit the particular conditions of the parcels. The level at which the indicator was set was sometimes too easy to achieve; for example cover values for undesirable species were often set above what was already present, therefore would allow a reduction in the quality of the habitat.

HL10 (restoration of moorland): *On areas of blanket bog, Bracken should cover less than 10%.* Surveyor commented that no bracken was present.

Alternatively indicators were too ambitious; for example indicator species frequency or desirable species cover were set at levels that could not possibly be achieved given the state of the feature, management prescriptions and timeframe.

HO3 (restoration of forestry areas to lowland heathland): By year 5, cover of dwarf shrubs of at least two species e.g. Heather, Bell heather, Cross-leaved heath, Western gorse should be between 10% and 90%. Surveyor commented: 'Highly unlikely to reach this target in 5 years. No sign of any of the species above at all'.



# Figure 9 Relationship between scores for 'type' and 'level' of Indicators of Success averaged for each option on each agreement.

Most IoS were scored as an appropriate type (88%) and, to a lesser extent, were set at an appropriate level (68%). Very few were assessed as completely inappropriate. The following discussion focusses on areas where IoS were not appropriate or were doubtful and therefore where improvements could be made. The results present a summary of where the type of IoS (section 4.5.1) and level (section 4.5.2) at which it was set were not appropriate based on feature type groupings. The same data are then presented but categorised by the type or subject of the indicator across all feature types (section 4.5.3). For each feature type, issues are summarised against generic headings with additional detail and examples relating to the specific features being considered.

#### 4.5.1 Type of Indicator of Success

Most IoS that could be assessed were considered to be an appropriate type of indicator (88%) and only a very small proportion (3%) were completely inappropriate (scored as 'red'). Inappropriate IoS occurred most frequently in lowland heathland, wetland and grassland options (Figure 10).



Chapter 4 \ Indicators of Success

Figure 10 Appropriateness of the type of IoS for individual indicators associated with options for different features. Red = inappropriate; Amber = doubtful; Green = appropriate. n numbers refer to the number of individual IoS that were assessed.

There was little difference in the field surveyors' judgement of IoS appropriateness under options with different degrees of management (maintenance, restoration, creation) for either all relevant options or for grassland options alone (Table 10a and b). Grassland options targeted at botanical biodiversity were slightly less likely to have appropriate IoS than those targeted at birds or unspecified environmental outcomes, although this has not been statistically tested.

|                 |     | Nun   | nber  | % of total |     |       |       |
|-----------------|-----|-------|-------|------------|-----|-------|-------|
|                 | Red | Amber | Green | Total      | Red | Amber | Green |
| a) All Features |     |       |       |            |     |       |       |
| Maintenance     | 10  | 47    | 384   | 441        | 2   | 11    | 87    |
| Restoration     | 33  | 80    | 753   | 866        | 4   | 9     | 87    |
| Creation        | 1   | 5     | 47    | 53         | 2   | 9     | 89    |
| b) Grassland    |     |       |       |            |     |       |       |
| Maintenance     | 6   | 32    | 233   | 271        | 2   | 12    | 86    |
| Restoration     | 19  | 36    | 288   | 343        | 6   | 10    | 84    |
| Creation        | 1   | 2     | 20    | 23         | 4   | 9     | 87    |
| c) Grassland    |     |       |       |            |     |       |       |
| Plants          | 19  | 36    | 258   | 313        | 6   | 12    | 82    |
| Birds           | 7   | 26    | 218   | 251        | 3   | 10    | 87    |
| Other env.      | 0   | 8     | 65    | 73         | 0   | 11    | 89    |

## Table 10Appropriateness of the type of IoS for specific option groups relating to a) and<br/>b) management intensity and c) target outcome

Table 11 presents results for the type of IoS for individual options or groups of options where at least ten parcels of the option or option group were assessed. A full list of results for individual options is in Appendix 3. IoS for arable options (HE10, HF and HG were generally of an appropriate type. The following text concentrates on where improvements could be made and describes the issues encountered for trees, grassland, upland and wetland options. The comments are presented as main bullet points which describe the generic issue, followed by further detail of the issues in relation to the feature in question. Bullet points are presented roughly in order of importance, however this was a subjective interpretation of surveyors' comments.

## Woodland/tree options (HC option codes)

Woodland indicators of success were rarely scored as completely inappropriate, but 'amber' scores were quite common. The main issues were:

- Lack of specificity to the feature in question
  - open ground or rides to be created in willow carr and narrow linear woodland;
  - IoS referred to features that were not present (e.g. ditches, archaeology);
  - an orchard IoS specified the condition of trees, but most of those present were not fruit trees.
- No possibility of success;
  - on woodland restoration (HC8) and two parkland options (HC12/13), surveyors highlighted that IoS concerning regeneration would not be achieved because there was no plan to limit grazing.
  - tree species specified that were either not present or were present in the canopy at lower levels than required and IoS could only be achieved by radical and unnecessary management;

- scrub options (HC15, 16, 17) had inappropriate IoS which referred to the age structure and species composition which would not be possible to achieve within the life of the agreement.

## Species-rich grassland options (HK6, 7, 8)

A relatively high proportion of IoS associated with HK7 (restoration of species-rich, seminatural grassland) were assessed as completely inappropriate (red) (Table 11) and a number of IoS for both HK7 and HK6 (maintenance of species-rich, semi-natural grassland) were scored as doubtful (amber):

- Baseline information was required to assess the IoS;
  - data on the extent of the feature were not considered sufficiently accurate
- Inappropriate indicator species lists
  - species omitted, list too restricted, no species specified
  - species were referred to as 'nationally scarce' or 'locally significant'
  - rushes included as desirable
- No possibility of success;
  - unrealistic targets for cover of desirable species
  - creation of bare ground associated with grazing was required, but the site would not be grazed
- IoS related to non-target features which were either absent or poorly described;
  - archaeology/historic features and wet ditches were commonly absent.
- Indicators that would be very difficult for agreement holders to assess;
  - hard and soft rush were both specified, but the AH would be unlikely to be able to distinguish.
- Assessments were subjective or very difficult to complete accurately;
  - assessment of the proportion of flowering
  - bare ground cover in a very tussocky feature
- Conflicts between IoS
  - requirement to both increase the cover of wildflowers, including rushes, and to reduce species associated with waterlogging (included rushes)
- Inappropriate for the specific feature
  - a target for wildflower cover would be met, but almost exclusively by ribwort plantain

Other issues included: indicators not relevant to the parcel surveyed, target covers unspecific (very broad range), indicators already met and lack of clarity.

## Other grassland options (other HK codes)

Issues with the IoS associated with grassland for target features (HK15, 16, 17) included:

- No possibility of success;
  - no mechanism to manipulate water levels

- overambitious
- Not relevant to the parcel
  - feature/species not present (bare ground will not be created by grazing; no duckweed present in wet ditches to will not exceed 75%.
- Lack of clarity
  - IoS related to management prescriptions with no measureable outcomes
  - general issues
- Conflicting indicators
  - requirement for flowering was not compatible with sward height requirements.

Only a small number of IoS associated with maintenance of grassland for bird options (HK9 and HK10) were considered inappropriate. Nearly half related to the appropriateness of the feature for birds due to apparently dry habitat and adjacent woodland/trees and reflected concerns over the appropriateness of the option.

## Upland options (HL option codes)

IoS for moorland restoration (HL10) were scored 'amber' or 'red' where:

- Not measureable
  - no baseline
  - no timeframe
- Inappropriate for feature
  - bare ground or burning unacceptable
  - heather associated with dry heath not a flush
- Indicator species lists absent

Two IoS associated with the shepherding supplement (HL16) were inappropriate because they referred to a livestock situation that did not exist.

## Wetland options (HQ option codes)

Concerns over IoS on wetland features were due to:

- Inappropriate for feature
  - species not present (e.g. detrimental indicators, Sphagnum, aquatic species in flowing stream)
  - range of heights should be specified not average
  - excessive surface water defined
  - incorrect indicator species list
- Conflicting IoS indicators described both as positive and negative
- Indicator species lists absent

Many of the 'red' scores for HQ options referred to IoS on a single inappropriate option for the feature. This was unusual because even where an inappropriate option had been chosen, IoS were often scored as appropriate.

| Option<br>code | Option description                                      | No. of parcels | Red | Amber | Green | %<br>Green |
|----------------|---|----------------|-----|-------|-------|------------|
| HC7            | Maintenance of woodland                                 | 10             | 2   | 5     | 32    | 82         |
| HC8            | Restoration of woodland                                 | 18             | 0   | 9     | 70    | 89         |
| HC other       | Trees, woodland and scrub                               | 31             | 2   | 23    | 142   | 85         |
| HE10           | Floristically enhanced grass buffer strips              | 10             | 0   | 1     | 37    | 97         |
| HF12           | Enhanced wild bird seed mix                             | 14             | 0   | 1     | 68    | 99         |
| HF/HG<br>other | Options for arable land                                 | 14             | 0   | 2     | 32    | 94         |
| HK6            | Maintenance of species-rich, semi-<br>natural grassland | 10             | 0   | 7     | 58    | 89         |
| HK7            | Restoration of species-rich, semi-<br>natural grassland | 36             | 19  | 29    | 199   | 81         |
| HK15           | Maintenance of grassland for target features            | 35             | 5   | 18    | 136   | 86         |
| HK16           | Restoration of grassland for target features            | 14             | 0   | 6     | 58    | 91         |
| НК9-14         | Management of wet grassland for<br>waders and wildfowl  | 15             | 2   | 8     | 82    | 89         |
| HL10           | Restoration of moorland                                 | 13             | 2   | 8     | 219   | 96         |
| HL other       | Moorland and upland rough grazing                       | 15             | 0   | 4     | 50    | 93         |
| HQ             | Options for wetland                                     | 28             | 6   | 11    | 100   | 85         |
| HR             | Additional supplements                                  | 17             | 1   | 6     | 34    | 83         |

 Table 11
 Scores for appropriate option type for commonly assessed options<sup>1</sup>

<sup>1</sup> For options or groups of options where  $n \ge 10$ . Red = inappropriate; Amber = doubtful; Green = appropriate.

Mean IoS scores were calculated for each option assessed on each agreement (see section 6). Scores for individual IoS were allocated in the range 0, 1, 2 with 0 = completely inappropriate; 1 = doubtful and 2 = appropriate type. Figure 11 presents the percentage of agreements in different categories of IoS score for individual options where at least ten parcels were assessed. The choice of categories is subjective, but is intended to allow comparison between options.

HC8, HK15 and HK16 were most likely to have low scores for IoS type ( $\leq$  1.25), whereas HK7 had the smallest proportion of agreements in the highest category (1.76-2.00).



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#### Figure 11 Proportion of agreements with IoS type scores for individual options where n≥10 across different range classes

#### 4.5.2 Level at which Indicators of Success are set

The appropriateness of the level at which IoS had been set was also assessed. All IoS were assessed against both 'type' and 'level' because the two assessments were not necessarily directly linked, although if there was doubt over the type of indicator there was usually doubt about the level at which it was set. However, because the assessments were independent, an IoS could be scored as an appropriate type, but set at an inappropriate level. For example, in a species-rich grassland, frequency of a list of indicator species might be an appropriate type of indicator, but the target might be set at too high a level for the feature in question if baseline frequencies are appreciably below the target. Where IoS were scored as an inappropriate or doubtful type but scored as green for the level at which they had been set, this was usually either because the IoS was poorly phrased (e.g. needed baseline information to assess) or because there was subjectivity in the interpretation of 'type' and 'level' for some indicators.

The level at which IoS had been set was judged to be inappropriate or doubtful more frequently than was the type of IoS. The level of the IoS was assessed as green for only 68% and 6.6% were categorised as red. In all feature types at least some IoS were judged inappropriate (red) (Figure 12). IoS were most commonly set at an inappropriate level on Iowland heathland and wetland.



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Figure 12 Appropriateness of the level of IoS for individual indicators associated with options for different features. Red = inappropriate; Amber = doubtful; Green = appropriate. n numbers refer to the number of individual IoS that were assessed.

As with the results for the type of IoS, there was little difference in the field surveyors' judgement of IoS appropriateness under options with different degrees of management (maintenance, restoration, creation) for either all options where these different management levels exist or for grassland options alone (Table 12). Details for individual options or groups of options based on feature type are presented in <u>Table 13Table 13</u> and a full list of individual options in Appendix 3.

|                 |     | Nun   | nber  | % of total |     |       |       |
|-----------------|-----|-------|-------|------------|-----|-------|-------|
|                 | Red | Amber | Green | Total      | Red | Amber | Green |
| a) All Features |     |       |       |            |     |       |       |
| Maintenance     | 19  | 104   | 318   | 441        | 4   | 24    | 72    |
| Restoration     | 69  | 241   | 556   | 866        | 8   | 28    | 64    |
| Creation        | 3   | 15    | 35    | 53         | 6   | 28    | 66    |
| b) Grassland    |     |       |       |            |     |       |       |
| Maintenance     | 13  | 65    | 193   | 271        | 5   | 24    | 71    |
| Restoration     | 27  | 84    | 232   | 343        | 8   | 24    | 68    |
| Creation        | 1   | 5     | 17    | 23         | 4   | 22    | 74    |
| c) Grassland    |     |       |       |            |     |       |       |
| Plants          | 23  | 80    | 210   | 313        | 7   | 26    | 67    |
| Birds           | 13  | 60    | 178   | 251        | 5   | 24    | 71    |
| Other env       | 5   | 14    | 54    | 73         | 7   | 19    | 74    |

# Table 12Appropriateness of the level set for individual IoS for specific option groups<br/>relating to a) and b) management intensity and c) target outcome

## Woodland/tree features (HC options)

For tree, woodland and scrub options the main issues were:

- Overambitious or could not be met given feature condition and prescribed management
  - trees would need to be newly planted or existing trees felled.
  - field layer or woody species cover targets would not be met either because deer were not excluded or because targets for woody species growth and expansion would simply not be achieved within the stated timeframe.
  - target age ranges for woody species could not be met given the limited presence (or absence) of scrub cover at the start of the agreement.
- Too easy to achieve
  - targets for both the shrub or tree layer and the field layer simply described the current situation therefore no change was required even in restoration options (e.g. HC8).
  - current tree densities were described as targets under parkland restoration (HC13)
  - undesirable species were not currently present.
- Inappropriate for the specific feature
  - shrub species listed either as positive indicators or undesirable species omitted important species in the feature.

Other issues included generic issues such as large target ranges, baseline data required to assess progress which were not available (e.g. areas of active burrows are reduced by 40%-

100%), lack of clarity in definitions (e.g. frequency of indicator species relating to the whole parcel or the relevant features within a mosaic), absence of a timeframe.

## **Options for arable land (HE and HF options)**

IoS for floristically enhanced grass buffer strips (HE10) were usually inappropriate where they were:

- Overambitious unrealistically high targets for desirable species on floristically enhanced grass buffer strips (HE10)
- Inappropriate for the specific feature subset of sown species listed as desirable on HE10.

Generic issues related to very specific target ranges for bare ground and absence of desirable species lists.

#### Species rich grassland (HK6 – maintenance; HK7 – restoration)

Surveyors recorded greater concern for indicators for species-rich grassland restoration (HK7) than grassland maintenance (HK6). The main issues were:

- IoS could not be assessed habitat or feature extent
  - 'Archaeological historic features: Area of active burrows is reduced by 40%-100%' Surveyor comment: '*Do not know original condition*'
- Targets were overambitious frequency and number of indicator species would not be achieved by the time specified.
  - By year 1, at least 2 high value indicator species for dry semi improved pasture, Common Stork's-bill, Bird's-foot Trefoil, Parsley-piert should be occasional in the sward. '*Result highly unlikely to be achieved none of these species evident*'.
- Targets were too easy to achieve for both undesirable species presence and cover of invasive woody species, where targets could have allowed a deterioration in feature quality.
- Subjective assessments proportion of wildflowers flowering.
- Absence of species lists 'locally significant' species were not defined
- Targets not tailored to the specific feature for a range of reasons included:
- Upper thresholds for bare ground generated by livestock were considered both too high and too low. These were also included for land parcels where no grazing was possible.
  - By year 3, cover of wildflowers in the sward (excluding undesirable species but including rushes and sedges), should be between 30% and 90%. Surveyor's comment: '*Target already achieved with species that have no value for G06*'.
  - By year 2 cover of species indicating water logging Tufted Hair-grass, rushes, large sedges, Common Reed, Reed Canary-grass, Reed Sweet-grass, should be less than 20%. Surveyor's comment: 'Cover of rushes seems to be set at relatively low level, given habitat type [M23b] and is considerably less than that required to achieve good condition [50%]'.

#### Management of grassland for target features

Issues with indicators for target feature options option were quite varied reflecting the range of targets. The main issues particular to these options were:

- Targets relating to change which had no baseline data
  - options aimed at archaeological features
  - options for birds and invertebrates often lacked clarity, specifying that 'populations should be maintained' species should be seen 'regularly'.
- Indicators relating to botanical diversity were overambitious.
- Indicators too easy to achieve detrimental indicators were present at the start of the agreement at levels well below the maximum target.

More generic issues included: redundant IoS (feature not present), inappropriate target ranges, absence of species lists.

## Moorland and heathland (HL and HO option codes)

Most issues for these options were identified for HL10 (moorland restoration) which was by far the most common option assessed for this group. Issues were similar to those identified for grassland IoS (including the absence of species lists, lack of baseline data to assess against):

- Indicators too easy to achieve detrimental indicators were present at the start of the agreement at levels well below the maximum target with the potential for a deterioration of feature whilst meeting the target
- Overambitious
  - species frequency or growth stage of dwarf shrubs would not be met. In lowland heathland several IoS defined dwarf shrub age ranges that could not be met given the uniformly young growth stage present at the start of the agreement.
  - the degree of bracken control was considered unrealistic.
  - the variable condition of different habitat patches meant that IoS might be appropriate for some areas but not others.
- Lack of clarity
  - IoS incorporated both presence of a species and the proportion of flowering

"On areas of upland dry heath, By year 5 flowering Heather plants should be frequent between July and September. Surveyor's comments: 'Confusion between no. of heather plants & proportion flowering - in this parcel Calluna is patchy so not frequent, but most of what there is will probably flower'"

- IoS relating to burning and firebreaks were particularly confusing.

## Wetland features (HQ options)

Similar issues of detrimental indicator targets set too low and positive indicators set too high occurred in wetland features, although only on a small number of agreements. Other criticisms of the level at which IoS were set in wetland features included a lack of clarity (poorly defined or not measureable) and targets relating to management of water levels or features for which there were no means to achieve the desired outcomes.

| Option<br>code | Option description                                      | No. of parcels | Red | Amber | Green | %<br>Green |
|----------------|---|----------------|-----|-------|-------|------------|
| HC7            | Maintenance of woodland                                 | 10             | 2   | 7     | 30    | 77         |
| HC8            | Restoration of woodland                                 | 18             | 5   | 27    | 47    | 59         |
| HC<br>other    | Trees, woodland and scrub                               | 31             | 9   | 47    | 111   | 66         |
| HE10           | Floristically enhanced grass buffer strips              | 10             | 6   | 7     | 25    | 66         |
| HF12           | Enhanced wild bird seed mix                             | 14             | 0   | 9     | 60    | 87         |
| HF/HG<br>other | Options for arable land                                 | 14             | 2   | 9     | 23    | 68         |
| НК6            | Maintenance of species-rich, semi-<br>natural grassland | 10             | 1   | 15    | 49    | 75         |
| HK7            | Restoration of species-rich, semi-<br>natural grassland | 36             | 22  | 64    | 161   | 65         |
| HK15           | Maintenance of grassland for target features            | 35             | 11  | 38    | 110   | 69         |
| HK16           | Restoration of grassland for target features            | 14             | 5   | 11    | 48    | 75         |
| НК9-<br>14     | Management of wet grassland for<br>waders and wildfowl  | 15             | 2   | 22    | 68    | 74         |
| HL10           | Restoration of moorland                                 | 13             | 13  | 65    | 151   | 66         |
| HL<br>other    | Moorland and upland rough grazing                       | 15             | 0   | 3     | 51    | 94         |
| HQ             | Options for wetland                                     | 28             | 14  | 40    | 63    | 54         |
| HR             | Additional supplements                                  | 17             | 1   | 11    | 29    | 71         |

 Table 13
 Scores for appropriate option level for commonly assessed options<sup>1</sup>

<sup>1</sup> For options or groups of options where  $n \ge 10$ . Red = inappropriate; Amber = doubtful; Green = appropriate.

As for IoS type, mean IoS level scores were calculated for each option assessed on each agreement (see section 6). Figure 13 presents the number of agreements in different categories of IoS score for options where at least ten parcels were assessed. Mean scores were lower than for the type (Figure 11), because IoS were much more likely to be judged at an inappropriate level compared to the type of indicator.

Scores in the lowest two categories combined ( $\leq$  1.25) were proportionally most frequent for HE10, but also represented 10-20% of most other options presented in Figure 13. Indicators for wild bird seed mix plots (HF12) were most likely of the options presented to be set at an appropriate level, however this option was rarely in place at the time of survey, so often only indicators referring to issues such as the position in the landscape could be assessed.



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## Figure 13 Proportion of agreements with IoS level scores for individual options across different range classes

#### 4.5.3 Classification of Indicators by indicator subject/objective

In order to make recommendations for the future use of indicators, IoS were classified by subject or objective across all options (Table 14). The following text briefly highlights the most important issues by indicator objective in setting of IoS both in terms of the type of indicator and the level at which they were set.

#### **Type of Indicator**

In terms of the type of indicator, greatest criticism (<80% green) was for: open areas in woodland and heathland, feature extent, target species and wildflower cover. Other categories of IoS with a low proportion of indicators considered appropriate were only assessed on a small number of parcels.

Where IoS required the creation of rides/firebreaks they were not considered appropriate for the particular feature because the feature covered a small or linear area or because open areas were simply not appropriate in the specific feature concerned.

IoS for maintaining feature extent were usually criticised because the FEP did not provide a sufficiently accurate baseline or because the extent could not be increased.

Targets for indicator species were scored as inappropriate because species were not listed or those that were listed were not present.

Issues associated with wildflower cover were varied, but included targets with wide ranges which were therefore irrelevant, insufficiently demanding targets even for restoration options, queries over the inclusion of rushes and confusion/conflict with requirements of other IoS.

#### Level that Indicators are Set

As noted in section 4.5.2, field surveyors assessed the level at which indicators were set as inappropriate more frequently than they did for the type of indicator. The indicators which were assessed as inappropriate most frequently (<70% green) are highlighted in Table 14, although many other types of indicator were often not considered to be set at an appropriate level but were only recorded on a small number of occasions.

Targets relating to feature extent were usually criticised because the FEP was not considered to be sufficiently accurate and therefore no baseline was available to assess the indicator against.

Half of indicators specifying wildflower cover were considered inappropriate. Four were overambitious, whereas five could have been set a higher threshold because the target described species frequencies at the start of the agreement. One surveyor pointed out that the target for wildflower cover had already been met, but with species of no value to the G06 habitat. Ten IoS were criticised because the target range was too broad and therefore not site-specific or helpful as a target. Four surveyors questioned the value of including rushes in these targets and it was suggested that targets for rush cover should be separate from forbs.

Indicators for target species were assessed as inappropriate where they referred to the maintenance of populations but no baseline data were available.

Targets for positive indicator species were set both too high and too low. Those set too high were more likely to be interim targets which specified frequency or cover targets to be met in years 2-6 of the agreement, than targets for the end of the agreement. One IoS for year two was more demanding than the similar subject target for year six. Targets relating to restoration options were also set too high on occasion and did not reflect the condition of the specific feature. Conversely, targets (including those for restoration options) were also considered under-ambitious. Criticisms of the IoS positive indicators also highlighted a lack of clarity in terms of the areas within a parcel that the targets applied to and lack of, or incomplete species lists.

Targets associated with flowering were overwhelmingly considered to be confusing because they confounded cover with flowering frequency. Those expressed as 'flowering heads should be frequent' should have been more specific about the area in question as target species were often uncommon or patchily distributed, therefore the target could not be met as specified for the whole parcel. Those expressed as a proportion of wildflowers in flower needed more specificity to assess against.

By year 5, At least 40% of wild flowers should be flowering during May-June. Surveyor comment 'not clear - Is one flower per plant enough?'

Indicators for vegetation cover in general, largely related to ditches. Four had ranges that were too large, two were considered overambitious and two specified species that were inappropriate.

Indicators for sward height had not been sufficiently adapted for the site with concern that to achieve two indicators would cause poaching and for a further two, the specified targets were simply not appropriate for the feature.

|                        |      | Type of IoS |       |       | Level of IoS |     |       |       |         |
|------------------------|------|-------------|-------|-------|--------------|-----|-------|-------|---------|
| Category of indicator  | n    | Red         | Amber | Green | % Green      | Red | Amber | Green | % Green |
| Arch/hist              | 120  | 6           | 12    | 102   | 85           | 8   | 25    | 87    | 73      |
| Bare ground            | 105  | 1           | 6     | 98    | 93           | 2   | 16    | 87    | 83      |
| Birds                  | 65   |             | 6     | 59    | 91           | 2   | 14    | 49    | 75      |
| Bracken control        | 22   |             |       | 22    | 100          | 2   | 4     | 16    | 73      |
| Burning                | 18   | 1           |       | 17    | 94           | 1   | 2     | 15    | 83      |
| Cereal density         | 3    |             |       | 3     | 100          |     |       | 3     | 100     |
| Disturbance            | 34   |             | 2     | 32    | 94           |     | 10    | 24    | 71      |
| Erosion                | 13   |             |       | 13    | 100          |     |       | 13    | 100     |
| Field size             | 5    |             |       | 5     | 100          |     |       | 5     | 100     |
| Flowering              | 80   | 2           | 6     | 72    | 90           | 1   | 25    | 54    | 68      |
| Grazing regime         | 48   |             | 3     | 45    | 94           | 3   | 11    | 34    | 71      |
| Habitat extent         | 35   | 5           | 6     | 24    | 69           | 3   | 9     | 23    | 66      |
| Hedge management       | 14   |             | 2     | 12    | 86           |     | 3     | 11    | 79      |
| Invertebrates          | 8    | 1           |       | 7     | 88           | 2   | 2     | 4     | 50      |
| Litter                 | 4    |             |       | 4     | 100          |     | 2     | 2     | 50      |
| Moist soil             | 26   |             | 3     | 23    | 88           |     | 6     | 20    | 77      |
| Negative indicators    | 143  | 4           | 11    | 128   | 90           | 7   | 27    | 109   | 76      |
| Open water             | 12   | 1           | 1     | 10    | 83           | 1   | 5     | 6     | 50      |
| Poaching/compaction    | 5    |             | 2     | 3     | 60           |     |       | 5     | 100     |
| Pollution              | 5    |             |       | 5     | 100          |     |       | 5     | 100     |
| Positive indicators    | 199  | 3           | 17    | 179   | 90           | 22  | 70    | 107   | 54      |
| Reed cover/height      | 6    |             |       | 6     | 100          |     | 1     | 5     | 83      |
| Ride/glades/firebreaks | 15   | 2           | 3     | 10    | 67           | 4   | 2     | 9     | 60      |
| Scrub control          | 109  | 3           | 6     | 100   | 92           | 5   | 26    | 78    | 72      |
| Seeding                | 32   |             | 3     | 29    | 91           |     | 5     | 27    | 84      |
| Standing water         | 16   |             | 2     | 14    | 88           |     | 4     | 12    | 75      |
| Stock exclusion        | 3    |             |       | 3     | 100          |     |       | 3     | 100     |
| Structure              | 317  | 9           | 35    | 273   | 86           | 33  | 85    | 199   | 63      |
| Surface features       | 8    |             | 1     | 7     | 88           |     | 2     | 6     | 75      |
| Sward height           | 12   |             |       | 12    | 100          | 1   | 4     | 7     | 58      |
| Target species         | 13   | 2           | 2     | 9     | 69           | 3   | 2     | 8     | 62      |
| Tree establishment     | 4    |             | 1     | 3     | 75           |     | 2     | 2     | 50      |
| Tree management        | 10   |             | 1     | 9     | 90           |     | 2     | 8     | 80      |
| Vegetation cover       | 31   | 3           | 3     | 25    | 81           | 1   | 11    | 19    | 61      |
| Vegetation height      | 6    | 1           | 2     | 3     | 50           | 2   | 2     | 2     | 33      |
| Water levels           | 23   | 1           | 2     | 20    | 87           |     | 9     | 14    | 61      |
| Wildflower cover       | 43   |             | 10    | 33    | 77           | 3   | 19    | 21    | 49      |
| Total                  | 1612 | 45          | 148   | 1419  | 88           | 106 | 407   | 1099  | 68      |

 Table 14
 Appropriateness of type and level of categories of IoS
A large number of indicators relating to vegetation structure were assessed which included scrub and tree growth, and cover of woody species. These IoS were frequently set at inappropriate levels because limited change could occur within the timeframe in terms of the cover of woody species and given a uniform age structure at the start of the agreement, the age ranges specified would not be achieved.

Several indicators which were applied to restoration options had already been achieved (or described the feature condition at the start of the agreement) and were therefore considered redundant. Other issues included a general lack of specificity to the condition and species composition of the habitat and a general lack of specificity.

Three indicators for open water (ditches and fens) specified unrealistically high upper ranges. Two would require management that was not specified in the agreement to achieve the targets. Most criticism of indicators for water levels in a variety of features surrounded rather precise limits which surveyors did not feel could be met consistently.

Indicators for rides or firebreaks lacked clarity and did not sufficiently consider the size, configuration or type of feature.

## 4.5.3.1 Summary of issues with Indicators of Success

It is important to remember that most IoS were an appropriate type (88%) and set at an appropriate level (68%). The main issues with the type and level at which IoS were set are summarised below. As far as possible, these are presented in order of priority, however this is a subjective assessment, no statistical analysis was done and the summary amalgamates issues relating to both the type and the level at which they were set. The main issues with the IoS and where improvements could be made were:

- indicators with no chance of success given the condition of the feature present and the management to be applied (desirable species specified which were not present and no seed source was apparent, age range of woody species)
- indicators that were far too easy to achieve and which could allow deterioration of the feature quality where applied to detrimental indicators
- targets relating to change which were impossible to assess without baseline information (habitat extent, maintenance of bird or invertebrate populations)
- indicators that were simply inappropriate for the specific feature
- lack of specificity for indicators which refer to a subset of parcels under that option
- very broad target ranges (often easily met) which give no real indication of desired outcomes
- targets where assessments are very subjective or difficult to measure (e.g. proportion of forbs flowering, proportion of bare ground, species cover in mosaics)
- targets relating to maintenance, restoration or creation set at a level appropriate for a different option
- indicators including species identification that would be very difficult for an agreement holder to assess
- lack of clarity over what is required (absence of target dates, levels)
- absence of specific lists of desirable species

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- completely redundant indicators (features not present)
- indicators which refer to other documentation such as SSSI condition
- conflicting indicators or conflicts with management prescriptions.

Overall, the underlying reason for IoS being of an inappropriate type or set at an inappropriate level was because they had been copied from templates with insufficient consideration of the specific feature to which they were being applied.

# 4.6 Capital Items

Capital Items (CIs) were assessed in the field where they were present in, or on the boundary of, a land parcel assessed for core options. However, most CIs were not due for completion until after the time of the field visit, because agreements were visited within the first six to 18 months and agreement holders usually had at least two years to complete the work.

Where progress had been made, enabling the quality of Capital Items to be assessed, field surveyors overwhelmingly considered them to be at least adequate and generally of very good quality.

# 4.6.1 Progress against schedule

Two thirds of Capital Items assessed had not been started at the time of the field visit, however, given the timing of survey within the first 18 months of the agreement, a surprisingly large proportion were complete (Figure 14).



Figure 14 Progress with completion of Capital Items

## Chapter 4 \ Missed Opportunities

Fencing was the Capital Item which was most likely to have already been completed (Table 15). This is likely to be because fencing is often an inherent aspect of the required management, allowing agreement holders to control the grazing regime or otherwise deliver the option management. Scrub and bracken control was often in progress, reflecting the fact that control is usually carried out over more than one season because of the scale of the operation. However, 72% of scrub and bracken control had not been started.

Of those CIs surveyed, only 24 were due to have been completed by the time of the field survey. Of these, four had not been started (two hedgerow restoration; one bracken control) and a further four, three of which were scrub/bracken control, were only partially complete.

|   | Complete |     | Partial |     | Not started |     |
|---|----------|-----|---------|-----|-------------|-----|
| Type of Capital Item                                  | n        | %   | n       | %   | n           | %   |
| Boundaries  | 3        | 5%  | 5       | 14% | 18          | 9%  |
| Items associated with tree planting and<br>management | 6        | 9%  | 6       | 16% | 27          | 13% |
| Fencing   | 30       | 45% | 3       | 8%  | 45          | 21% |
| Historic features                                     |          |     | 1       | 3%  | 1           | 0%  |
| Landscape items                                       | 11       | 17% | 1       | 3%  | 29          | 14% |
| Resource protection                                   |          |     |         |     | 5           | 2%  |
| Reversion - heathland, grass, meadow                  |          |     |         |     | 9           | 4%  |
| Re-introduction of livestock                          | 4        | 6%  | 4       | 11% | 13          | 6%  |
| Upland management                                     |          |     |         |     | 2           | 1%  |
| Scrub and bracken control                             | 2        | 3%  | 11      | 30% | 33          | 16% |
| Access  | 2        | 3%  |         |     | 1           | 0%  |
| Items associated with wetlands                        | 4        | 6%  | 2       | 5%  | 15          | 7%  |
| Ponds   |          |     | 1       | 3%  | 5           | 2%  |
| Species   | 3        | 5%  | 2       | 5%  | 6           | 3%  |
| Payment for advice                                    | 1        | 2%  | 1       | 3%  | 1           | 0%  |
| Other environmental issues                            |          |     |         |     | 1           | 0%  |
| Total   | 66       |     | 37      |     | 211         |     |

# Table 15Progress with completion of different categories of CIs. Percentage data refer<br/>to the proportion of different categories at each stage of completion.

# 4.7 Missed Opportunities

Although the field survey could not assess the whole agreement, the remote sensing activity did not identify any significant areas of habitat which were not included in the FEP. The remote sensing exercise did highlight small, sub-parcel scale vegetation differences or alternative parcels of a similar habitat type which apparently could have been included in an agreement. Occasionally only a proportion of a habitat on a holding had been included in the agreement and a different land parcel of the same habitat would have represented better environmental value. Also, some within-parcel habitats had been overlooked.

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On one holding at least, land could have been entered into a more demanding option, but the agreement holder had perhaps not wanted the additional management restrictions. In a few of the Agreement Holder (AH) interviews the AH expressed a wish for some options to be considered but they were not included. This might have been due to the lack of a target for that option or because of resource constraints. However, given the nature of this research project (snapshot survey of only selected options) it was difficult to identify the more subtle elements of 'missed opportunities'. For example, it was not possible to assess whether alternative fields of similar habitat identified by the remote sensing activity or fieldwork would have been more valuable when placed under a particular option than those in the scheme.

# 4.8 Discussion

# **Identification of Features**

Analysis of differences between the FEP codes identified by project field surveyors and those in the sample agreements indicate that for most features, the FEP provides a good audit of habitats/features on which to base an agreement. However, on the subset of FEP codes audited, field surveyors reported issues with identification of FEP codes on 42% of agreements. The most common issues were: inflation of feature quality, habitat identification where multiple features were present in a single parcel and difficulties with specific feature classification.

There were issues with inflation of feature quality or aspirational classification on the basis that there was potential to restore a very degraded habitat. This issue was particularly important in relation to species-rich grassland habitats which were sometimes classed as a habitat which represented only a small proportion of the parcel. Similar results were recorded in a survey of agreements which started between 2009 and 2011 (Mountford *et al.*, 2013).

The FEP process was also less effective at identifying and mapping features where more than one feature was present in a land parcel. This was particularly difficult in large upland parcels and the quality of the FEPs in this situation was quite variable. Mosaics and transitions between habitats were difficult to identify and map accurately and small areas of habitat were sometimes missed.

Some features proved difficult to classify against FEP codes because there was a lack of clarity in the criteria or had been misunderstood by those carrying out the original FEP survey. Tree/woodland features were particularly difficult with parkland features identified where very few trees were present and surveyors unsure how to classify native but planted woodland.

## **Option Selection**

The majority of options assessed were considered appropriate, however a small number were wholly inappropriate. Options forgrassland, wetland and woodland features were most likely to be inappropriate.

Grassland for target feature options were used very variably. Sometimes they were appropriately applied as a cost-effective alternative on lower quality features and where multiple objectives were important. Conversely, grassland options sometimes focussed on a

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single objective but the value could have been improved by the inclusion of management prescriptions to address multiple environmental objectives. On some agreements, options for target features were used with a distinct lack of focus and the objectives were not always clear.

Where target statements existed, a high proportion of options selected were in the statement.

On some agreements, field surveyors highlighted that options were applied to low value features for the area and a limited number of options were in the relevant targeting statement. This suggests that occasionally options were included to increase the range of objectives addressed by the agreement to improve the likelihood of it being accepted.

#### **Missed Opportunities**

It is difficult to assess the extent of missed opportunities in a snapshot because the full background of reasons for including/excluding options/fields etc. and choice of options was not available. Detailed records of what was left out and why do not usually exist. Therefore it is difficult to identify subtle missed opportunities. For example it was not possible to assess whether alternative fields of similar habitat would have been more valuable when placed under a particular option than those which were included. Most of the missed opportunities identified in this research were small areas of habitat which had been overlooked in larger parcels.

### **Agreement Documentation**

The experience of the field surveyors suggests that the documentation associated with an agreement can be somewhat confusing. The absence of stated overall objectives means that the expected outcomes are rather specific to individual field parcels and in relation to individual Indicators of Success. However, the documentation is organised in such a way that prescriptions and intended outcomes for a single parcel can be in several places. Because instructions are presented by option, supplements are dissociated from the main body of the prescriptions and may be overlooked. Also, different management prescriptions and loS may apply to individual parcels on the holding, but all information relating to that option is presented together. Capital Items may be inherently linked to delivery of the core options, but the descriptions and schedule are presented in two further documents. Additional management plans are separate documents and sometimes contain all MPs and loS relating to an option. An alternative would be to take a parcel level approach to the documentation, with specific management (including capital items) and outcomes all presented together.

### **Assessment of Outcomes**

Very few agreements include any documented high level objectives and the IoS are therefore the main focus for monitoring progress. Templates for individual IoS for each option were introduced to improve the consistency and quality of agreements. However, it is apparent that NE officers sometimes do not modify the IoS to reflect the particular circumstances of each agreement or parcel. Where IoS were scored as inappropriate for either type or level, the use of unedited templates appears to be the underlying problem.

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This lack of tailoring leads to: i. redundancy, ii. inappropriate targets, iii. confusing and conflicting definitions of successful outcomes, which cannot contribute to the agreement holder's understanding and engagement with their agreement.

i. Redundancy

Indicators were not relevant to the land parcel because the features described were not present, although sometimes these features were present on land parcels not assessed.

ii. In appropriate targets

Indicators included very wide ranges, or even in a few cases no defined values because the templates contained 'xxx%' which had not been edited. Limits for cover of detrimental indicators were often far above current levels and could have been met whilst representing a deterioration in feature quality. Other indicators were overambitious and where they related to presence of indicator species, field surveyors frequently commented that they did not know where these species would arrive from. Indicators relating to the age profile of woody species were applied which it was not possible to achieve because the baseline was a single age.

iii. Lack of clarity

There are inherent problems with some of the templates which have poorly defined outcomes or ones that would be very difficult to assess (e.g. proportion of plants flowering). Many IoS defined outcomes that required a well-recorded baseline to judge progress, however that baseline information often did not exist.

Mountford *et al.* (2013) reported that the IoS were the elements of the agreement documentation that were of the poorest quality. They recommended that NE officers should receive training in adaptation of the templates and that they should be measureable by both the agreement holder and NE. It is difficult to say if any progress has been made in the intervening five years, however it is clear that many agreements still fall far short in this respect. Further guidance for NE officers is required and if IoS are used in the new Countryside Stewardship to be launched in 2015, care must be taken to ensure that outcomes are focussed, clear and measureable. Also, it is not currently clear who IoS are intended for (AH, NE, third party evaluator). In future they should be designed to allow appropriate monitoring.

## **Implementation of Management Prescriptions**

Because this was a baseline survey, assessment of whether Management Prescriptions (MPs) were being followed was not routinely made since, at such an early stage in the agreement it was difficult to assess. However, it was apparent that some MPs represented outcomes and would have been better included in the IoS. This issue overwhelmingly arose from the MP templates. It is possible that there is justification for not including these indicators in the IoS, however it could contribute to a lack of understanding of the agreement documentation.

This work assessed progress with implementation of Capital Items (CIs). Schedules for completion were generally after the time of the field visit and a surprisingly large number of CIs were already complete. Those already met, tended to be straightforward or were critical to the management of the agreement. However the fact that many CIs had not been

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started suggests that agreement holders are either having difficulty meeting the requirements or do not regard the time limits as important.

# 5 AGREEMENT HOLDER UNDERSTANDING AND IMPACT OF ADVICE AND SUPPORT

This section reports on the findings arising from the interview survey with the 102 agreement holders and this is divided into three main sections. The first section deals with an assessment of the advice and support provided by advisers and by the Higher Level Stewardship (HLS) agreement, largely up until the agreement was signed (Project Objective 3). The second section looks at the level of agreement holder understanding of and engagement with advice and support and agreement requirements (Project Objective 2). The third section assesses the impact of this advice and support amongst agreement holders and their engagement and attitudes towards it (Project Objective 4). The last section discusses these results and outlines the key points to take forward to the recommendations.

### 5.1 Assessment of the provision of advice and support

This section looks at the agreement holder's (AH's) perceptions of the quality, appropriateness and timing of advice and support received, the level of understanding of the advice and support and their awareness of the proposed environmental outcomes. In this respect the section focuses on Interview Objectives 1 and 2 as outlined in Section 1.4 above.

In order to gauge the level of agreement holder understanding about what their agreement was expected to achieve, all of the respondents were asked to indicate and rank the three main objectives of their HLS agreement. They were provided with a list of the six broad Environmental Stewardship (ES) objectives and the responses are shown in <u>Figure 15Figure</u> 15.



# Figure 15 Agreement holder's identification and ranking of their HLS agreement according to ES objectives

Agreement holders were most likely to mention 'benefit native plants and wildlife' (95%) and 'improve the landscape' (75%) in the three main objectives of their agreement (<u>Figure 15</u>Figure 15). Most (67%) agreement holders also ranked 'benefit native plants and wildlife' as the highest ranked objective. When the other four objectives were mentioned, they were mostly ranked third. Objectives least frequently mentioned by agreement holders were 'improving access' (10%) and 'reducing or mitigating climate change' (17%).

If these responses are matched with the options contained in the HLS agreements and reviewed in the previous chapters, it would suggest that the agreement holders have a good interpretation of the link between their agreements and the overall ES objectives.

## 5.1.1 Quality, appropriateness and timing of advice and support

All of the respondents were asked to provide three reasons as to why they entered into an HLS agreement. The responses are shown in <u>Figure 16 Figure 16</u> below.



Figure 16 Agreement holders' reasons for taking up their HLS agreement

The respondents were free to answer as they felt appropriate and the responses were coded after all of the interviews were completed. The figure shows that the desire to achieve ES objectives was the most frequently mentioned response (by 97 AH). Specifically under ES objectives most respondents mentioned biodiversity, habitat and species management but other ES objectives were also included as a reason for joining:

- -Biodiversity, habitat and species management: "Internationally important habitatthreatened due to neglect."; "To provide a better habitats for birds."
- -Landscape and historic environment: "Interest in maintaining traditional landscape."; "restoration of the park- public benefit and community benefit."; "Maintain the British landscape."; "Maintain landscape of small traditional farms".
- -Resource protection: "Concern about level of cow muck in river"; "to get river banks fenced to maintain water quality."
- -Access: "Intrinsic recreation enjoyment."; "Education access hopefully in the future."; "to safeguard the cultural landscape and provide access and education."

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There were also agreement holders who wanted to continue the conservation work begun under a previous agri-environment scheme (AES): "I was looking for a successor to the Countryside Stewardship Scheme (CSS)."; "Continue from CSS and personal interest in the scheme."; "Only option was HLS – Wildlife Enhancement Scheme (WES) had finished."; "Experience in agri-environment from Environmentally Sensitive Areas (ESA)."

Financial reasons for joining were mentioned by 85 agreement holders. For some agreement holders HLS payments helped the farm to be financially viable: "Income for the farm business."; "Financial to make the farm viable."; "Financial support for economically-marginal holding."; "Income from HLS for an upland farm in a Severely Disadvantaged Area (SDA) is critical."

For other agreement holders the HLS payments were necessary for them to achieve the environmental objectives. This particularly applied to the capital works options: "We needed the finance - there's no way we could afford to do things like coppicing without the funding from the scheme."; "Always planned similar management strategy but did not otherwise have the resources available."; "Funding for fencing necessary to allow grazing."; "Financial contribution towards capital works."

It was also common for agreement holders to say that HLS helped them with aspects of farm management and/or land management (mentioned 46 times): "fencing off steep area where lost sheep."; "Flood and run off management: 'Ponds are a double hit... we are trying to stop the water flow as well as providing a better habitat.'"; "Subsidise costs of wall repairs and fencing."; "To get river banks fenced to protect the stock."; "Did not have to significantly change management practices much so it was a good fit for the HLS."

Being advised or instructed to join HLS was mentioned 16 times as a reason for joining HLS: "Natural England (NE) approached us and identified the value of the habitat."; "Natural England persuaded them to join."; " [Landlord] wanted the agreement holder to go into HLS."; "The tenancy agreement insisted they did."; "Keep right with landlord."; "encouragement from the owner (who has strong conservation interest)."

Another group of agreement holders said that they joined HLS to set an example. This took the form of setting an example to others and also projecting the environmental credentials of the agreement holder: "Setting example as responsible land owner and complementing work done on neighbouring land."; "Set an example in the area and hopefully encourage some farmers to follow." "Beneficial to Wildlife Trusts' public relations."; "Gives a certain status when asking for funds."

Four agreement holders said that they had joined HLS as a means to manage the SSSIs on their land: "Told to do it when Site of Special Scientific Interest (SSSI) was added to the holding."; "to enhance the moorland and do what was necessary to put the SSSI into good condition."; "To comply with SSSI management enforcement."

Clearly these initial reasons will have an impact on how the agreement holder approaches the advice and support they receive. This will be investigated more thoroughly in subsequent sections.

The agreement holder's perceptions of the quality, appropriateness and timing of advice and support received were sought through a series of questions concerning the establishment of the HLS agreement (Section 3 of the questionnaire), focusing on the

various stages in the development of the agreement. In all six stages were identified in the questionnaire and for each the contribution of the NE officer and up to two other advisers was discussed; these stage are described in detail below. The other advisers were most often the person appointed to complete the Farm Environmental Plan (FEP) or someone who gave specialist advice on a particular feature or habitat.

The headline message is that there was a high degree of satisfaction amongst the agreement holders with the advice and support provided by NE officers during the establishment of their HLS agreement. In all 94% of agreement holders said that they were satisfied with advice and support provided by their adviser during all the stages they have been engaged with. Only 5% of agreement holders indicated they were dissatisfied with the advice and support of their adviser for one of the six stages of the process and just one agreement holder was dissatisfied with the input of the NE officer for two of the six stages.

Detailed examination of the agreement holder responses shows that levels of engagement and satisfaction were different for different stages in the process. Each stage is now discussed in turn.

## Stage 1: responding to the expression of interest

Only 34% of agreement holders identified that the NE officer was involved with the expression of interest. All but one (96%) were satisfied with this stage of the process. The reason for not having any contact at this stage is likely to result from the large number (62%) of HLS agreements entering from the classic schemes, as many of the agreement holders in the sample had been contacted previously by NE to discuss if they should consider applying for HLS.

### Stage 2: The initial visit

Just over half (57%) of agreement holders indicated that a NE officer was present at the initial visit and all but one of the agreement holders (98%) were satisfied with the outcome of the visit. Again those who did not register this phase might be those who had been in a previous AES agreement so no initial visit was required.

## Stage 3: Help in preparing and submitting the FEP

Most (87%) agreement holders recollected receiving help in preparing and submitting the FEP from a non-NE adviser and 94% were satisfied with this help. Four agreement holders felt the help was unsatisfactory.

#### Stage 4: Formal visit to discuss the FEP and application

Two thirds (67%) of agreement holders identified that their NE officer was part of the formal visit to discuss the FEP and application and all were satisfied with the visit.

#### Stage 5: Checking and signing the agreement

Nearly half (47%) of agreement holders indicated that the NE officer participated in the checking and signing of the agreement and all but one of the agreement holders were satisfied with the process.

### Stage 6: Implementation

The same proportion (47%) of agreement holders indicated they had received advice on implementation from one of the advisers, most likely the NE officer. Only one agreement holder was dissatisfied with the advice.

Overall, there was a high degree of satisfaction with the advice and support provided by NE officers in establishing the HLS agreement. This is shown in <u>Figure 17Figure 17</u> below.

Agreement holder satisfaction with NE advice and

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# Figure 17 Agreement holder satisfaction with NE officer advice and support during the establishment of their agreements

In all, 85% of the 102 agreement holders said that they were satisfied with advice and support provided by NE during all the stages they were engaged with. Of those who expressed dissatisfaction, 9% of agreement holders indicated they were dissatisfied with the advice and support of the NE officer for a single stage of the process and 5% were dissatisfied with the input of the NE officer for two or more stages. Satisfaction for each of the stages was higher than 90% in every case.

The use of other advisers is a key part of the HLS agreement establishment but they were not used in every case as <u>Figure 18</u> shows.



### Figure 18 Number of advisers used to secure HLS agreement

The analysis shows that 22% of agreement holders relied on advice and support solely from the NE officer to establish the HLS agreement. This was most often the case when the agreement holder was transferring from one scheme to another as it was felt that this made the FEP process more straight forward. However, this means that just over three quarters (78%) of agreement holders received advice and support from at least two sources. Most of these agreement holders (58%) used one additional source for advice and support with 20% accessing two additional sources. Provision of the additional advice was mainly through commercial environmental consultants (private consultants of organisations like the Farming and Wildlife Advisory Groups (FWAG) or the county Wildlife Trusts) and specialist organisations such as the Royal Society for the Protection of Birds (RSPB), and English Heritage. Specialist organisations tended to be the third source of advice.

As with NE officers, there was a high degree of satisfaction with the advice and support provided by other organisations ('adviser 1 and 'adviser 2'), with 90% of agreement holders who had a second adviser, saying that they were satisfied with advice and support provided by this adviser during all the stages they were engaged with. Only one agreement holder indicated they were dissatisfied with the advice and support of a second adviser for a single stage of the process and one agreement holder was dissatisfied with the input of the second adviser for two stages. The key point at which these advisers were involved was Stage 3 'Help in preparing and submitting the FEP'. Here nearly half of agreement holders (45%) indicated that they received input from a second source of advice and support. All but one of these was satisfied with the help.

Figure 19 Figure 19 below shows the spread of involvement across the six stages:

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-Stage 1 = expression of interest
-Stage 2 = initial visit
-Stage 3 = help with FEP
-Stage 4 = formal visit
-Stage 5 = checking and signing agreement
-Stage 6 = implementation



Chapter 5 \ Assessment of the provision of advice and support

Figure 19 Agreement holder account of NE and other adviser involvement in the establishment of HLS agreements (% of all agreements)

NE officers were heavily involved in all stages in securing the HLS agreement, with the exception of Stage 3, where an external adviser is often requested to prepare the FEP. Additional advisers tended to be less involved in all the stages but focus more on stage 3 (Helping to prepare and submit the FEP) onwards. The second adviser was often a specialist who was involved in preparing the FEP and providing advice on implementation (Stage 6).

<u>Figure 20</u>, presents agreement holder responses when asked to identify which of the six stages was the most influential in shaping their HLS agreement.

In total, 78% of agreement holders provided information on the most influential stage in shaping their HLS agreements. It is unclear why 22% did not provide an answer, although this part of the interview tended to be quicker so it might be that the respondents felt unable to select one option quickly.

Of those who responded to the question, the most influential stage in shaping the HLS agreements (30%) was the 'formal visit to discuss the FEP and agreement' (Stage 4). Some of the text responses indicate the agreement holders' experience of this stage and it is clear to see that for these respondents this stage brought the agreement together into one document.

"NWT already knew what they wanted to do but this stage decided on the best options to achieve this.";

"this is the point at which negotiations over capital items and stocking levels took place.";

"This is where we developed and confirmed the options, had meetings with the contract farmers and discussed stuff put forward by NE and the FEP adviser.";

"This was the stage at which most discussion took place, especially about stocking levels and grip blocking.

Just over one-quarter of respondents (26%) identified the 'initial visit' (Stage 2) as the most influential stage in shaping their agreements. These quotes describe a process that developed the initial shape of the agreement.

"When met to NE officer the agreement became a reality in his mind that something was actually going to come out of it.";

"The Consultant made the whole HLS process very clear. Understood exactly what he wanted from HLS and designed a very good agreement for him.";

"That's when it was all thrashed out between us, NE and the consultant.";

"Initial visit and especially discussion about options were very important."

Looking at all of the responses, just under three quarters felt that Stage 2, 3 and 4 (initial visit to formal signing of the agreement) were the most important. About 15% said that no one stage was the most influential; however few selected the latter stages 5 and 6, the checking and signing stage or that of implementation. This might be seen to offer some reassurance as it suggests that the agreement holders were content that the agreement details had been satisfactorily dealt with in the previous stages.



Figure 20 Agreement holder identification of most influential stage in establishing HLS agreement

Finally in this section the data have revealed the agreement holders' views on the quality, appropriateness and contribution to the HLS agreement. In order to determine the roles of the various advisers that may have been involved a number of questions were asked. For each of the sources of advice that were involved, the agreement holders were asked if they 'visited the site', 'assisted in option selection' and 'offered specialist advice'. The outcomes are shown in <u>Figure 21Figure 21</u> below, the percentages are shown as those who had received that source of advice.



# Figure 21 Agreement holder views on the contribution of advisers to provision of advice and support

There was a general consensus amongst agreement holders that participating in a site visit was a key function of advisers and that their presence at a site visit was particularly valuable. It was the NE officer who was most important in option selection but the other advisers came into their own in offering specialist advice.

The agreement holder survey recorded a generally high approval rating for all the sources of advice. For the NE officers, all but one of the agreement holders indicated they had a site visit by their NE officer and 87% said that their officer had provided assistance in option selection. Specialist advice had been provided to 72% of agreement holders.

Agreement holders were also asked whether this advice was appropriate to their farm/holding business and to the HLS agreement. The responses are shown in <u>Figure 22</u>Figure 22 below.

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Figure 22 Agreement holder views on the appropriateness of advice and support to their farm business and HLS agreement

All the agreement holders considered the advice and support they had received from the NE officer to be very appropriate (68%) or fairly appropriate (32%) to their HLS agreements. There were no cases where the advice from the NE officer was considered to be inappropriate. Only in the case of adviser 2, who tended to offer specialist advice did some feel that this was inappropriate. The appropriateness of the advice in terms of the farm business was also strongly upheld, although the responses were at a slightly lower level. The majority of the advice given by NE officers was also felt to be very appropriate (54%) or fairly appropriate (39%). Six agreement holders (7%) considered the advice to be inappropriate to their farm businesses. Again the responses for adviser 2 were slightly lower than for the other two sources.



The agreement holders' views on the quality of the advice they received was also assessed, see <u>Figure 23</u> below.

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Almost three-quarters (73%) of agreement holders indicated that they had received high quality advice from their NE officer. There were no cases where the quality of advice was considered to be of low quality. Advice from the non-NE advisers was also considered to be of high quality in the majority of cases.









Eight out of ten agreement holders (84%) considered that they had received an appropriate amount of advice and support. Twelve agreement holders (13%) considered they had received not enough advice and support and three (3%) said they had received too much.

Finally the agreement holders were asked if the advice and support they received met their needs, the data are presented in <u>Figure 25 Figure 25</u> below.

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In the majority of cases the needs of the agreement holder were met 'totally'. For NE officers this was in 69% of cases and nearly 80% for adviser 2 who helped with the FEP. The specialist advice offered by adviser 3 was mostly very welcome and met the agreement holder's needs (62%) but sometime only partially (31%).

The last set of questions in this section asked the agreement holder what they would have done in absence of the advice. The responses suggest that in the absence of the various sources of advice about a third of the agreement holders would have acted differently. Either they would have not continued with the application process, or the lack of advice would have led to a less effective agreement. However, just under two-thirds of agreement holders (64%) said they would have known where to go for similar advice in the absence of an NE officer. This leaves 36% who were uncertain and thought that they would experience problems in accessing similar advice and support. There was also a substantial number of agreement holders (35%) who felt that they would have selected less demanding options. Similarly one third of agreement holders (34%) indicated they would consider reducing the scope of their agreement (11%) or not proceeding with their agreements (23%).

Overall the impression is of a well-balanced programme of advice and support that agreement holders were very satisfied with. The FEP does play a key role in shaping the agreement but the NE officer is key to all stages and holds the whole process together. A key part adviserwhich the agreement holders commented on was that all of the advisers visited the site. It was the NE officer who was most important in option selection but the

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other advisers came into their own in offering specialist advice, especially adviser 2. There is some evidence to suggest that the more agriculturally orientated the agreement holder the more significant they find the advice and support that they receive in the establishment of the HLS agreement.

Having focused on the process, the next section looks at the agreement holders' understanding of and their engagement with the advice and support they have received.

# 5.2 Agreement holder understanding of and engagement with agreement requirements

Having reviewed the process of developing and establishing the agreements, this section will focus initially on the agreement holders understanding of, engagement with and attitude towards the final documentation associated with the HLS agreement. All of the respondents were asked at the end of Section 2 in the interview schedule, how complex they felt the documentation that accompanied their agreement was to understand and to implement. Looking first at the issue of understanding, the agreement holders were asked 'how complex do you feel your agreement is to understand?'. Three options were given; 'very complex', 'complex but manageable' and 'very manageable'. Of the 102 agreement holders, the majority said that their agreement was 'complex but manageable' (56%) or 'very manageable' (32%). Only 12% felt their agreement was 'very complex'.

On the issue of how complex the agreement holder felt their agreement was to implement, the majority said that their agreement was 'complex but manageable' (50%) or 'very manageable' (38%). As with understanding, 12% felt their agreement was 'very complex'. Comparing the group who answered 'very complex' to both questions reveals that eight respondents responded in the same way to both questions.

The responses for this question were cross tabulated with the agricultural dependence variable developed in Section 3.1. There was no significant difference across the three categories but the 'agriculturally dependant' group were slightly more likely to find the agreement documentation 'very complex' to understand (14% compared to under 10% for the other two categories. There was no difference for implementation.

Overall, this gives a strong indication that the vast majority of agreement holders feel that their agreements are manageable but a small number of agreement holders feel that they are both complex to understand and implement. Given that all the agreement holders are in the first year of their agreements this could be considered to be satisfactory.

There were two further questions that followed on from the issue of understanding and implementation. These asked the agreement holders how important the final agreement documentation was to them and how comprehensive they found it. The majority of agreement holders said their final agreement documents were 'very important' (45%) or 'important' (50%) to them. Only five per cent said their final agreements were 'unimportant'. Similarly all the agreement holders said that their final documents were either 'very comprehensive' (52%) or 'fairly comprehensive' (48%). These responses were also cross tabulated with the agricultural dependency variable. There was no variation with importance but the 'agriculturally dependant' group were the most likely to find the documentation 'very comprehensive', 49% compared to 57% for the 'non-commercial'

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group and 62% for the 'agriculture non-dependent' group. The differences are small but it suggests that the 'agriculturally dependant' group find the documentation the most challenging.

As a final question in this sequence, agreement holders were asked how often they looked at their HLS agreement documents. Almost half the agreement holders said they consulted their agreement documentation on a regular basis (several times a year) (48%) with 44% doing so 'occasionally' (once or twice a year). Only eight per cent said they looked at their documentation 'hardly at all' (less than once a year).

Looking at the response over this set of questions in more detail, the majority of agreement holders who found their agreements to be very complex to understand also consulted their documentation regularly (8 out of the 12 agreement holders who found them 'very complex'). Similarly, the same proportion (8 out of 12) of agreement holders who found their agreements to be 'very complex' to implement also consulted their documentation regularly. This is a reassuring cross-check that indicates that the agreement holders take the agreement seriously and use it as a reference document. There is no variation according to agricultural dependency.

As well as asking agreement holders about the advice and support they received in the establishment of the HLS agreement, they were also asked about any continuing advice and support they received after the agreement was signed. In total, one-third of agreement holders (33%) indicated that they were receiving 'on-going' advice as part of their HLS agreement. Asking them to outline what this on-going' advice involved revealed that most of these agreement holders were receiving additional advice on the implementation of option prescriptions and capital works, most from the NE officer. As the following quotes indicate this is valued by them.

"They are still in touch with their NE officer. It is still on going, they are still doing capital work."

"Independent adviser and the local council as they are implementing. If don't fully understand then they always get some advice before they start implementing."

"Gives confidence making right decisions."

The majority of agreement holders (67%) said that they were no longer receiving advice. The main reason given was that continuing advice was not required: "Not really - it is very straightforward."; "Don't feel the need for any further advice."

A number of the comments suggest that some agreement holders felt that they did not have a choice with regard to option selection. Either they replied that the NE officer and the FEP adviser decided between themselves, or that they had to agree to what had been proposed. In the case of professional organisations, e.g. National Trust (NT) or Wildlife Trust, presumably because of their existing knowledge, there was some evidence of renegotiation on option selection. In cases where there was some negotiation, an agent for the land owner was often involved and ensured that the options fitted the farming system. In other cases the early concerns expressed by agreement holder were found to not to be a significant issue.

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Some agreement holders found the options were too prescriptive. The perception was that it was quite difficult to adapt to the strict timings and guidelines, which may need to be relaxed in cases of flooding, poor establishment conditions and prolonged dry periods. However, agreement holders did not seem to be familiar with, or were unwilling to explore, the idea of seeking derogations where conditions hampered delivery of management prescriptions.

This section has shown the agreement holders to have a strong understanding of the scheme requirements as outlined in the final documentation. They view these as complex but manageable in terms of understanding and implementation. The documentation is viewed fairly often and 'respected'. There is some evidence that the more agriculturally dependent are slightly more likely to find the documentation complex.

# 5.2.1 Overall agreement holder attitudes towards the advice and support

The focus of this section is the agreement holders' overall attitudes towards the advice and support they received. This was the intention of a set of four questions that sought to determine the impact of the advice and support on four aspects of the HLS agreement and was placed at the end of Section 3, the section that looked in detail at the process of advice provision. The responses are shown in <u>Figure 26</u> below.



# Figure 26 Agreement holder views on the influence of the advice & support received on four aspects of the HLS agreement

<u>Figure 26</u> shows how important the advice and support agreement holders received was in terms of shaping their HLS agreements. Over two thirds of agreement holders felt that the advice and support had a 'very significant' (68%) influence on the preparation of the agreement and a quarter said it was 'fairly significant' (26%); giving 94% who indicate that the advice and support they received was 'significant' in influencing the preparation of their agreement. Similarly, almost nine out of ten agreement holders (89%) felt that the advice and support had a very significant (62%) or fairly significant (27%) influence on 'the overall package of options selected for their HLS agreement'.

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However the role of advice and support in not selecting an option or determining the overall level of work to implement the agreement over the next ten years was less significant. While overall 84% of agreement holders said that the advice had influenced the level of work required over the ten years of the agreement, the number saying that the influence was 'very significant' (40%) was the same as 'fairly significant' (42%), suggesting slightly less influence in this aspect. The advice and support received by agreement holders was also influential in decisions not to select particular options with nearly three quarters saying it was 'significant' (73%), although just over one-quarter (27%) said it was 'insignificant'.

The positive nature of the agreement holder views is also noticeable when assessing the responses to the question 'is the advice and support you have received going to help to deliver the environmental outcomes that you support?'. Over nine out of ten agreement holders were positive and felt that the advice and support they had received was going to help them to deliver the desired environmental outcomes.

"Feels his options are straight forward and the advice has been good."; "crucial to my confidence."; "it has taught him techniques for management."

A small number of agreement holders (6) were less positive about the advice and support they had received. ". .. worried that advice may be wrong for meadows and moor."; "I feel the advice and support has been inadequate."

The responses were cross tabulated with the agricultural dependency variable outlined in section 3.1. The main finding is that 'agricultural dependent' agreement holders tended to attribute a higher degree of significance to the influence of the advice and support they received relating to the preparation of the agreement and the overall package of HLS options than the other two categories ('non-commercial' and 'agricultural non-dependent'). Nearly three quarters (73%) of the 'agricultural dependent' group thought the advice and support was 'very significant' in 'influencing the preparation of the agreement' compared to 62% and 50% in the other two categories. Similarly, over two thirds (69%) of this group thought that the overall advice was 'very significant' in shaping the overall package of options in the HLS agreement, compared to 50% in both the other categories. By contrast, a quarter of the 'agricultural non-dependent' felt the 'overall level of work required to implement the agreement over the next ten years' was 'not very significant' and only 18% felt it was 'very significant' compared to over 40% in the other two categories.

Overall in this section, the advice and support have been shown to be very significant in shaping the options and the preparation of the agreement. This is particularly the case for the agriculturally dependent agreement holders with low levels of concern regarding implementation in the non-agriculturally dependent group.

# 5.3 Impact of the advice and support on agreement holder understanding engagement and attitudes

This next section looks in detail at Section 4 of the interview schedule where selected options were assessed in detail.

# 5.3.1 Impact of advice and support on agreement holder understanding

A number of questions covered the issues of the impact that the advice and support associated with the establishment of the HLS agreement has on agreement holders understanding. How the agreement holder views the advice and support is an important indicator of impact. All agreement holders were asked 'Do you see the advice and support you received as a really useful tool to help deliver the HLS agreement?' The majority of agreement holders (83%) responded positively. Some of the quotes in response included:

"I am not a fountain of knowledge so I need to run it past someone."; "Especially with follow-up visits as management progresses."

Some 15 agreement holders (17%) felt that the advice and support was not really useful in the delivery of their HLS agreements. The analysis of the supporting quotes suggests that there were two main reasons for this. Some agreement holders already felt they had the knowledge to deliver the scheme.

"Management has been constant for 30 years. Advice for the HLS not really necessary."; "I already had most of the knowledge I needed.";

While others felt the advice and support they had received had not been helpful:

"Confusing as there are different schools of thought regarding some advice."; "Commoners received very little advice and support from NE..."

Agreement holders were also asked if 'there had been any wider benefits as a result of the advice and support you have received through the HLS agreement?'. Just over half the agreement holders (51%) thought that there had been wider benefits as a result of the advice and support they had received through their HLS agreement. These benefits fell into three main groups

- -Improved environmental knowledge and management techniques: "NE adviser showed me species of interest and things like the difference between types of buttercups."; "AH knows more about the biodiversity on the farm and the importance of different habitats."; "Didn't understand how the HLS scheme worked but does now."; "Has learnt new techniques."
- -Increased engagement with other organisations and farmers, and between agreement holders and the public: "Contact between different organisations (e.g. Areas of Outstanding Natural Beauty (AONB), NE, farmers) - has enhanced connections. "; "Relationship with Myerscough College."; "Area for grazing has increased which has improved relationship with tenant farmers. Relationships with Forestry Commission have been improved."; "The National Park is involved, that allowed them to put gates for public access."; "Farm walks and have educational access, so very active in engaging others."
- -Increased awareness and use of local environmental services and contractors: "To a certain extent. In terms of greater awareness of new contractors, sources of seed and general local knowledge."; "Supporting local contractors with fencing."; "... the local economy with the AH using local businesses."

A number of questions were asked about Indicators of Success (IoS). The first explored the sample agreement holders' knowledge of the IoS for each of the options in their agreements. The results are shown in <u>Figure 27</u>Figure 27.





Overall just under three quarters of the agreement holders stated that they were aware of the IoS (72%). This was lowest in those with arable options (62%) and highest in grassland (75%) and wetland (82%) options.

For those who said that they knew their IoS, a supplementary question was asked. 'Do you think the IoS will be easy to achieve?'. The response is shown below (Figure 28 Figure 28).



For those who know the option IoS: Do you think that these will be

Figure 28 Agreement holders views on whether IoS will be achieved by option

The response is notably lower with only just over half indicating that they thought the IoS would be achieved. This falls to 38% on arable options but is 58% of woodland options. It is possible that the agreement holders are more confident in delivering woodland options as they consider this land to be less productive. In the case of arable options however, the agreement holders appear to be slightly more sceptical and this may be related the 'sacrificing' of productive land to the HLS options.

All of the agreement holders were asked about the quality of advice and support they received alongside the IoS (Figure 29Figure 29). The respondents were offered a five point scale by which to respond, ranging from 'very clear' to 'not at all clear'.







The results show that in half of cases the agreement holders felt the advice and support linked with the IoS was 'very clear'. Adding those who thought it was 'clear' takes the response up to 79%. On the negative side, 10% thought it was 'not clear at all' and this was highest in woodland, and lowest in arable options. The case of woodland is interesting. In the question above agreement holders were slightly more likely to feel that IoS were easy to achieve, whereas here the outcomes were less clear in the advice and support received. This might be because woodland management is relatively new to agreement holders whereas the advice and support associated with arable options involved well understood management practices.

Nearly all agreement holders were aware of the IoS, but tended not to know the specifics (individual species requirements, sward height etc.). The findings suggest an increased level of uncertainty when the IoS are considered when compared to the agreement itself and the advice and support received. Therefore, while the IoS are useful to NE in judging the success of the agreement, they are not helpful to most agreement holders in this regard. Some simple well defined objectives could be more helpful to them in understanding what they are trying to achieve. An additional idea would be to include the IoS in a small booklet rather than be lost in a larger more detailed agreement document.

The questions concerning the selected options provided a rich source of data on the agreement holders understanding of the management required. The responses to questions in Section 4 provide a key contribution to the assessment of their level of understanding of both the options and the whole agreement. After the interview the interviewers made an assessment of the responses during this discussion, recording for each selected option, whether the respondent was 'very fluent', 'fairly fluent', 'not very clear' or 'very unclear'. Further categorisation took place in order to develop an assessment for each agreement holder into their fluency with regard to the management required for each option. The classification was determined as follows:

Chapter 5 \ Impact of the advice and support on agreement holder understanding engagement and attitudes -High = All or most options ranked 'very fluent' (no 'not very clear'/'unclear' allowed). -Medium = All/most ranked 'fairly fluent' (Mixed 'very clear' / 'unclear' codes).

-Low = All or most ranked 'not very clear' or 'very unclear'.

Running the analysis in this way reveals that 44% fall into the 'High' category (41), 37% into the 'Medium' category (34) and 19% in the 'Low understanding' category (18). Interestingly, there was no difference amongst the agricultural dependency variable. Of the 102 agreements, 94 were able to be coded in this way with nine omitted because of missing codes. This suggests that the agreement holders have a reasonably sound level of understanding across the selected options in their agreement.

The next section looks at the impact of the advice and support received by the agreement holders. This provides further detail on the implementation of the advice and support received under the selected options that are assessed.

## 5.3.2 Impact of advice and support on agreement holder engagement

As part of the discussion on selected options, the agreement holders were asked if they had the capacity to undertake the work identified for this option. The respondent was able to reply yes or no and the responses are shown in <u>Figure 30</u> below.



# Figure 30 Agreement holders view on their capacity to undertake work by option group

The findings show agreement holders felt confident that the work associated with the majority of HLS options (76%) was within the capacity of the farm business. There was little variation across the main option groups but greatest confidence about capacity to do the work for Wetland options (82%) and least confidence for the Trees, woodland, scrub and orchard options (73%). This means that in just over a fifth of cases the agreement holders felt that they did not have the capacity to undertake the work. This group are compared with those who have capacity later.

A follow on question for those who answered 'Yes' asked the agreement holder who was going to undertake the work (<u>Figure 31Figure 31</u>).





# Figure 31 Agreement holders with capacity identifying who will do the work by option group

Responses indicated that for those who have the capacity (77 out of 102) over half the work (57%) to deliver the options would be undertaken within the farm business by the agreement holder (30%) and farm labour (27%). Contractors would be used to do the work on 30% of the options whilst the remaining work would be carried out by 'others' (14%), including volunteers and graziers.

This pattern was broadly repeated for the four major option categories, although for the arable land options, 72% of the work would be carried out within the farm business by the agreement holder (41%) and farm labour (31%).

It was possible to separate out those who indicated that they did not have the capacity (25 agreement holders), to see who they had indicated would do the work. See <u>Figure 32</u>Figure 32 below.



Figure 32 Agreement holders identifying who will do the work by capacity and no capacity

As might be expected, over three-quarters 77 (78%) of the agreement holders who indicated that they had the capacity to do the work required within their farm businesses said that they would do the work themselves (42%) or use their own labour force (36%). The remaining work on the options would be carried out by contractors (12%) and others (10%).

For those agreement holders who said they did not have capacity within the farm business to carry out the work on the options (25 agreement holders), contractors would be engaged to do the majority of the work (79%) with the 'other' category accounting for most of the remaining work (19%). None of the agreement holders suggested that they did not know who would do the work but some suggested that this had not yet been determined. In some cases this related to grazing and clearly this was of more concern than erecting fencing other more general management tasks.

In the set of questions relating to selected options, the agreement holders were asked how well the option management fitted their current management of the holding generally (<u>Figure 33</u>Figure 33). They were able to choose one of five options in response, from 'very good fit' to 'very bad fit'.

The majority of HLS options fitted well with current farm practice. Overall, eight out of ten options (81%) were either a very good fit (59%) or a good fit (22%) with the current farm management.



Figure 33 Agreement holder views on how well the option fits current management by option group

The Wetland (94%) and Woodland (86%) option categories tended to have the best fit with current farm practice, perhaps due to the non-productive character of many of the features. In contrast only two-thirds (67%) of the Arable land options were considered to be a very good (36%) or good (31%) fit with current farming practice. As mentioned previously this may well relate to the loss of productive arable land to these options, meaning that they do not fit the farm management very well.

The agreement holders were asked if they considered the advice and support received for the selected options to be practical. As before this was on a five point scale. Overall, the advice and support received for eight out of ten options (84%) was considered to be either a very practical (57%) or practical (27%). Advice and support was considered to be of no practical use for only 3% of the HLS options.





Figure 34 Agreement holder views on practicality of the advice and support by option type

<u>Figure 34</u> shows that the Wetland options category scored highly in terms of the practicality of the advice and support, with over two-thirds (69%) being considered very practical. The Arable land options category had the lowest proportion (50%) of advice and support classed as very practical. Agreement holders were confident that the associated capital items would be in place at the right time for the vast majority of their HLS options (94%).

This section has shown that the agreement holders have the capacity to undertake the work, mostly through the farm business. This will be an important part of their engagement in the HLS agreement in subsequent years. Those without capacity are heavily reliant on contractors meaning that the agreement holder will need to be fully aware of the agreement requirements in order for the work to be of the right standard. The issue of capacity needs to be considered when selecting options. The advice and support is valued and found to be practical. It is a good fit with the farm business in most cases, but this is least likely to be the case for arable options.

The next section looks at the agreement holders overall view on the HLS agreement and its likely success and outcomes

## 5.3.3 The role of advice and support in achieving agreement outcomes

Given that the agreement holders had only been in HLS for a year at most, many of them were still establishing the agreements so the number of questions looking at agreement outcomes was limited. However, all respondents were asked an open question 'What will have to happen for you to feel that your HLS agreement has been successful?' Of the 102 agreement holders all but four offered a response and these were coded once all the agreements had been entered onto the database.

The analysis reveals that agreement holders mentioned two broad sets of criteria which they attributed to success. This is shown in <u>Figure 35</u> below.

What will have to happen for you to feel that your HLS agreement has been successful?



Figure 35 Categorisation of agreement holder responses to 'what will have to happen for you to feel that you HLS agreement has been successful'

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The majority of agreement holders (73%) identified that meeting the environmental objectives of their agreement was the most important measure of success for them, while 16% identified success in terms of business and financial criteria. Eleven per cent of agreement holders mentioned both environmental and business and financial criteria. This variable was cross tabulated with the agricultural dependency variable and there were no particularly pronounced differences. Of the non-commercial group, 75% were likely to mention environmental objectives, slightly more than the other two, but the difference was very small.

In terms of the environmental criteria, some agreement holders were very specific about what would constitute a successful agreement and frequently mentioned the Indicators of Success or similar:

"Improvement in farmland birds, flora, insects and woodlands.";

"Somehow to measure the bird and insect populations, especially the target species. Need to understand the baseline, but we need to know if we've increased the population. If you can't measure it, you can't manage it or make decisions. So a bit sceptical, but this isn't a criticism on Natural England. Will need to explore how to measure it some more.";

"Met all the IoS and achieved favourable condition status for the habitats. Hope to exceed the IoS to reach SSSI condition assessment.";

"Indicators of Success achieved."

"Look here (Mr B points to his agreement IoS) they say this is what success looks like... I think it's how your farm looks. You want to walk over a lovely grassland farm and think this [HLS] has really improved the farm... but I don't want to improve it by just putting fertilizers and sprays on it... It would be lovely to have the cattle and sheep and birds and everything...so that's really what it is."

"Maintain bird species and insect populations on the farm. Protect the archaeology. Wants to see the arable reversion field becoming 'an old fashioned meadow, with flowers and everything else in it... which I'm sure, long before I was about, that's what they looked like. I would like to see more barn owls, we have some but more would be good. They require a certain type of habitat... they need to be able to hunt in the grass fields '."

For some agreement holders, success was seen in more general but still environmental terms:

"For the site to continue to look like it has done for 30 years."; "Notice improvement in conservation quality."; "More wildlife gain."; "If we see the desired results which will increase year on year."; "That it is all managed well and maintained."

Gaining the approval of NE was also seen as a good measure of a successful outcome:

"For NE to state that it is a success."; "NE approval - saying well done!"; "A happy NE officer."; "The adviser is happy when he comes out."; "Successful site visit with adviser."

For 27% of agreement holders a successful HLS agreement had to include a positive business or financial impact. For some agreement holders their HLS agreement was important in maintaining the viability of the farm or providing an income:

"...receiving the payments due through to the end of the agreement."; "That the farm remains economically sustainable."; "Financial stability - options and HLS wouldn't be viable without this."; "Receive payments and farm still productive."; "Restoration of the walls, tidying up the landscape. Improved income from unproductive land."; "Satisfactory scheme will be sufficient to keep this business afloat..."

For other agreement holders success was measured in terms of avoiding financial penalties:

"No recovery of HLS payments after 10 years in the scheme."; "Not being fined."; "AHs will consider it a success if HLS maintains the viability of their farm and they get through the agreement with no penalties."; "Everything to work and to have no problems. Don't want to have recovery of money or anything like that."

These responses show a depth of consideration regarding what a successful HLS agreement might look like. The majority cite environmental reasons, many of which were very specific and quoted aspects of the agreement, this is a positive sign that the advice and support has contributed to the anticipated outcome.

As a final question the agreement holders were asked 'how confident are you that your HLS agreement will be successful?'. Of the 97 who provided a response 39% were 'very confident', 57% 'fairly confident' and four per cent 'not at all confident'. There was a difference here according to agricultural dependency. Of the non-commercial group, 50% were 'very confident' compared to less than 40% in the other two more agricultural groups. This might relate to the stronger environmental nature of the non-commercial group as it contains the environmental bodies like the Wildlife Trusts and county councils.

The responses for the open question 'what would have to happen for you to feel that your HLS agreement was successful' were also cross-tabulated with this question and the responses are shown in <u>Figure 36</u>.



Figure 36 Agreement holder confidence that agreement will be successful by what would have to happen for agreement to be successful

The comparison shows that, like the non-commercial group, those agreement holders who offered environmental and financial reasons as a measure of a successful agreement were the most confident that the agreement would be successful. Those agreements holders who were not at all confident of being able to achieve a successful HLS agreement tended to identify success solely in terms of business and financial criteria (13%). These agreement holders offered reasons such as:

"...receiving the payments due through to the end of the agreement."; "Financial stability - options and HLS wouldn't be viable without this."; "Receive payments and farm still productive."; "Improved income from unproductive land.";

For these agreement holders success is defined in terms of business and financial objectives, and in this sense the returns offered by HLS are somewhat uncertain From this one would deduce that the advice and support received thus far have not succeeded in establishing confidence in the minds of these agreement holders. However, for the majority the advice and support has contributed to them feeling very or fairly confident that the HLS agreement will be successful.

The final section looks at the overall impact of advice and support on agreement holders. The aim here is to bring together the findings from previous sections through more open and general questions on options and the advice and support received.

### 5.3.4 Overall impact of advice and support on agreement outcomes

In Section 4 of the interview schedule the agreement holders were asked for their views on how effective they felt the selected option would be. In previous responses, notably Figure 26 (the influence of advice and support), clarity of IoS (Figure 29) and confidence of success (Figure 36) agreement holders are shown to be very positive.

In <u>Figure 37</u>Figure 37, the responses are shown to the question 'How effective do you feel the option will be?'. The responses were recorded on a five point scale from 'very effective' to 'very ineffective'.

Overall agreement holders think their option management will be at least effective (80%) in achieving their desired outcomes. Effectiveness scores are high for the majority of options. Although there appears to be less confidence that Arable land options will be very effective, reflecting previous response such as Figure 28 (IoS will be achieved) and Figure 33 (how well does option fit with current management?). There is clearly some concern amongst agreement holders, particularly the agriculturally dependent group, that the arable options will be effective. Having said that, the positive responses to the advice and support need to be borne in mind, which suggests that they will be very interested in the outcomes, even if there is concern about the outcomes. Grassland options have the highest proportion of non-effective scores, but the numbers are very low.





The agreement holders were also asked at the end of the discussion on selected options if they felt the option provided the best management for the intended outcomes. As before a five point scale was offered to them from 'strongly agree' to 'strongly disagree', see <u>Figure 38</u>Figure 38 below.





Overall there is a consensus among agreement holders that the management set out in the options is the best management to achieve the intended outcomes. Wetland options score the highest and grassland and woodland options have the most dissention and disagreement with the statement. Given the low level of support for arable options in the previous figure the evenness of the response in this table gives weight to the suggestion that agreement holders, notably the more agricultural oriented ones, can see that the advice and support is proposing the right management but that they are not convinced it will have the right impact.

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Finally in this section is a question concerning the impact of the advice and support on the agreement holder knowledge and awareness of the feature or habitat that the option is concerned with. As Figure 39 below shows, the advice and support appears to have made the agreement holders more aware of both the feature and the required management to optimise ES outcomes. In terms of general awareness, 62% of agreement holders said that they were more aware as a result of the advice and support received. The response was consistent across all of the option types and the agricultural dependency variable.

<u>Figure 39</u> below shows the number of agreement holders who are more aware of the required management.

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Figure 39 More aware of the management requirements by option type

Overall two thirds of the agreement holders said that they were more aware of the management requirements and this was fairly consistent across the main option types. It was highest in arable options (72%) and lowest in wetland options (55%).

The findings in this section suggest that the overall impact of the advice and support is strong and that the agreement holders receive considerable benefit from it. Moreover they are aware of this and of what the intended outcomes of the agreement should be. There are some variations according to the option groups. Those with agreement containing arable options seem to be more wary about the effectiveness and likely success of the management prescriptions but they are able to do the work, are more aware of the feature, how it should be managed and that this is a most appropriate management.

The next section reviews this chapter and discusses the main points that have been highlighted.
#### 5.4 Discussion

The interviews with agreement holders were intended to provide data against the objectives 2 and 4 and part of 3.

- Objective 2 agreement holder understanding of, engagement with and attitude towards agreement requirements, intended outcomes and prescriptions,
- Objective 3 the quality of agreement establishment as a foundation for future delivery,
- Objective 4 the impact of agreement holder understanding and engagement and quality of agreement establishment on the potential to achieve agreement outcomes.

Overall, the evidence gathered through the agreement holder interviews provides a strong indication that the vast majority of agreement holders feel very positive about the advice and support that they received and that their agreements will be effective. There was a high degree of satisfaction with the whole process of agreement establishment. Most agreements involved two or more advisers (78%). The role of the NE officer was consistent across the establishment process, with the exception of the FEP where a non-NE adviser worked with the agreement holder. The most influential stage was seen as the initial visit, development of the FEP and the formal visit associated with the signing of the agreement. The lower rating for implementation suggests that the agreement holders are satisfied with the agreement prepared in early stages. The site visit is clearly a critical stage in this establishment. The advice is seen as appropriate for the farm as well as the agreement itself and rated very highly by the agreement holders. Therefore is also evidence that the high quality of agreement establishment might act as a foundation for the future delivery of the agreement (Project Objective 3).

Looking more closely at Project Objective 2 (agreement holder understanding of, engagement with and attitude towards agreement requirements, intended outcomes and prescriptions), the survey examined the views on the final documentation. The analysis has also shown that the agreement holders view their agreements as manageable but a small number feel that they are both complex to understand and implement. Analysis against the agricultural dependency variable shows that those in the 'agricultural dependent' group are slightly more likely to find the documentation complex to understand but they are also the group most likely to rate the documentation as very comprehensive. The documentation is viewed fairly often and 'respected'. This is not to be unexpected given that all the agreement holders are in the first year of their agreements and it might be considered to be a strong position for the HLS agreements going forward. The relationship with the NE officer continued with a third of agreement holders receiving on-going advice, largely it seems by just staying in touch through 'phone and email.

The impact of aspects of the second project objective are harder to assess as the agreement is so new. However, some of the questions looked to gain some perspective on this. For example, nine out of ten agreement holders gave positive responses to the question 'is the advice and support you have received going to help to deliver the environmental outcomes that you support?'. These responses were cross tabulated with the agricultural dependency variable and showed that the 'agricultural dependent' agreement holders attributed a higher degree of significance (73%) to the influence of the advice and support they received

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than the other two groups (62% and 50%). This suggests that there is a healthy respect for the HLS agreement amongst agricultural agreement holders. Furthermore, a quarter of the 'agricultural non-dependent' group were less concerned about the level of work required. This might be because the group contains a number of large landowners with strong environmental knowledge.

The detailed assessment of selected options revealed that agreement holders are aware of the IoS but they are divided as to whether they will be easy to achieve. Positive responses for tree and woodland options were higher but they were lower for arable options. It is possible that the agreement holders are more confident on the woodland options as they consider this land to be less productive. However, they were less sure about the outcomes, suggesting this management is new to a number of agreement holders. In the case of arable options however, the agreement holders appear to be slightly more sceptical. This may be related the 'sacrificing' of productive land to the HLS options and therefore a feeling that this option does not 'fit' well with current management. However, they seem to know the management assigned to these options and agreed that it is practical.

The questions concerning capacity revealed that most of the work would be undertaken within the farm or holding business. Those who did not have the capacity would look to contractors or others (e.g. volunteers) to do this work. This was only a concern where the management required was quite specialist, for example grazing. Although it is well known to NE it is important to stress that the feasibility of implementing options needs to be assured as well as the environmental requirement. Overall the evidence was that agreement holders have the capacity to undertake the work, mostly through the farm or holding business.

The categorisation provided by the interviews on the fluency of the agreement holders understanding revealed that less than a fifth were considered to have a low understanding. Interestingly there was no difference amongst the agricultural dependency variable.

Overall the impression is of a well-balanced programme of advice and support that agreement holders were very satisfied with. For a third of agreement holders they would have not found similar advice elsewhere, might have chosen less demanding options and may well have not entered HLS at all. The agreement requirements are understood and the level of engagement with the options is high. There are some option-specific issues that might need further investigation, especially where agreement holders have little existing knowledge (such as tree and woodland management) or where the option needs to co-exist with farming practices and there is concern about this 'co-existence' (such as arable options).

Project Objective 4 looks at the impact of agreement holder understanding and engagement and quality of agreement establishment on the potential to achieve agreement outcomes. Given that the agreement holders had only been in HLS for a year at most, many of them were still establishing the agreements so the number of questions looking at agreement outcomes was limited. However some of the questions in the discussion around selected options and in the final set of questions considered the longer-term issues and looked at the wider understanding and engagement with the advice and support provided.

In terms of the issue of success, the majority of agreement holders saw this in terms of environmental objectives with only 16% seeing it purely in financial or business terms.

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Interestingly there was little variation according to agricultural dependency, with noncommercial, (which includes Wildlife Trusts and Local Authorities), slightly more likely (75%) to mention environmental objectives than the other two. The consistency of the agreement holder response is reassuring in the longer term. There was a difference in confidence of this success according to agricultural dependency. Across all of the agreement holders almost 40% were 'very confident' of success. However in the 'non-commercial group' this rose to over 50% compared to under 40% in the other two more agricultural groups. Again this suggests that those agreement holders with less environmental knowledge need a strong agreement establishment period in order to prepare them for the implementation stage.

To some extent this is borne out in the final section where a series of open and overview questions are analysed. There is clearly some concern amongst agreement holders, particularly the agriculturally dependent group, that the arable options will be effective. Levels of concern are highest in grassland options and this relates to the reduction of stocking rates or the timing of management operations. Despite these concerns amongst some, a higher proportion of agreement holders are more aware of the features and habitats within the agreements and of the management that they require. Therefore in terms of impact and environmental outcomes the findings suggest that the advice and support has had a strong impact on agreement holders and that they receive considerable benefit from it. Moreover they are aware of the intended outcomes of the agreement. There are some variations according to the option groups. Those with agreements containing arable options seem to be more wary about the effectiveness and likely success of the management prescriptions but they are able to do the work, are more aware of the feature, how it should be managed and that this is a most appropriate management. It is possible that this could be reduced by linking NE officers or other advisers with particular expertise in the particular options types to agreement holders. Also the development of discussions groups would provide a further mechanism for agreement holders to engage with other agreement holders and advisers.

Chapter 6 \ Agreement level assessment

### 6 EVIDENCE FOR THE IMPACT OF ADVICE ON THE QUALITY OF AGREEMENT SET-UP

#### 6.1 Agreement level assessment

In total, data on 94 agreements were evaluated to measure statistical dependence between inputs to establish the agreement (including agreement holder characteristics and their views on the advice and support received) and indicators of how well it was established (set-up). The results from the Spearman's correlation analysis are shown in <u>Table 16Table 16</u> where coefficients of correlations between each paired input/set-up variable are presented along with their p-values (in brackets).

# Table 16Spearman's rank correlation coefficient for inputs to set up agreements and<br/>key set-up indicators

|                    | Set-up indicators |                       |          |           |  |  |  |
|--------------------|-------------------|-----------------------|----------|-----------|--|--|--|
| Input indicators   | FEP code          | Appropriate<br>option | loS type | IoS level |  |  |  |
|                    | 0.0898            | 0.2347                | -0.0341  | 0.1724    |  |  |  |
| AH characteristics | (0.3893)          | (0.0228)              | (0.7441) | (0.0966)  |  |  |  |
| Need for advice    | 0.0364            | 0.1151                | 0.1303   | 0.0045    |  |  |  |
|                    | (0.7277)          | (0.2693)              | (0.2106) | (0.9660)  |  |  |  |
| Advice input       | 0.0759            | -0.0261               | -0.1235  | 0.0171    |  |  |  |
| Auvice input       | (0.4673)          | (0.8030)              | (0.2355) | (0.8703)  |  |  |  |
| Relationship with  | 0.0916            | 0.1166                | -0.1240  | -0.0541   |  |  |  |
| NE officers        | (0.3797)          | (0.2631)              | (0.2336) | (0.6045)  |  |  |  |
| df=92              |                   |                       |          |           |  |  |  |

The results suggest that there is a positive but weak correlation (Spearman's coefficient= 0.23, p=0.0228) between agreement holder (AH) characteristics and the appropriateness of the options selected, but no correlations found in any other paired input/set-up variables. This is largely due to a concentration of relatively high scores for both input and set-up indicators as shown in <u>Figure 40</u>Figure 40.

Mapping the distribution of set-up scores (a composite of the four set-up indicators on a scale of 0-2) in <u>Figure 40Figure 40</u> shows that they are clustered between 1.5 and 2.0 (88% of agreements). Some of the key input scores also show a similar pattern. Thus AH scores are mainly at the higher end (over 80% of agreement holders scored 3 or above across a range of AH characteristics) (<u>Figure 41Figure 41</u>) with AH knowledge showing the broadest distribution of scores. A similar concentration of scores is evident for agreement holder views on advice input (<u>Figure 42Figure 42</u>), with over 90% of agreements scoring 3 and above.

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Chapter 6 \ Agreement level assessment

Figure 40 Composite Set-up Score for agreements (from site visits)

The following charts illustrate the distribution of scores provided by the interviewers for AH characteristics and AH perceptions of advice input. These overview indicators were scored on a scale of 1-5 where 1= Very low and 5= Very high.



Figure 41 Distribution of AH characteristics scores (from AH interviews)



#### Chapter 6 \ Agreement level assessment



Given that no correlations were found in the majority of paired input/set-up indicators using Spearman's rank correlation, a few cases were selected in order to explore the relationships between input and agreement set-up in more detail. These cases were selected from agreements where there is apparent misalignment between set-up score and the score for AH's knowledge of agreement objectives and Indicators of Success (IoS), i.e. those cases with high knowledge score but low set-up scores (4 cases) and those with low knowledge score<sup>5</sup> but high set-up score (12 cases).

#### Table 17 Matrix of scores for AH knowledge and agreement set-up

|  |       | Set-up score |        |             |
|--|-------|--------------|--------|-------------|
| AH knowledge of agreement objectives and IoS | LOWER | MID          | HIGHER | Total cases |
| Scores 1&2                                   | 6     | 12           | 12     | 30          |
| Score 3                                      | 2     | 7            | 13     | 22          |
| Scores 4&5                                   | 4     | 16           | 22     | 42          |
| Total cases                                  | 12    | 35           | 47     | 94          |

There are just as many agreements where moderate or high AH knowledge is associated with lower set-up scores as there are for AH's with low knowledge. This highlights the multiple factors which influence agreement set-up and the complexity of their interaction. From the qualitative analysis of the cases highlighted in <u>Table 17Table 17</u>, we can surmise the following:

i.

A low level of AH knowledge does not always translate into poor agreement set-up scores. Among the 47 agreement holders who achieved higher set-up scores, 12 (26%) were scored low (scores 1&2) for their knowledge of agreement objectives and IoS. Out of these 12, five mentioned high level of advice input to preparation of

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<sup>&</sup>lt;sup>5</sup> AH knowledge score was used as a proxy for AH characteristics (ownership, commitment etc.)

#### Chapter 6 \ Comparative analysis with the NE QA exercise findings

the agreement and choice of options as a key success factor. The advice input is especially critical when the agreement was (seen as being) complex. Other driving factors to deliver good agreement set-up scores include external pressure/interest from Natural England (NE) due to presence of particular features or unusual habitats on farm (for example, reed beds, Sites of Special Scientific Interest (SSSI) woodlands, medieval village...) and where the land managers are in the situation where they have to manage the land in a particular way (for example, land management on SSSIs).

ii.

There were cases where AHs with a high level of knowledge of agreement objectives and IoS did not deliver good agreement set-up scores. Four cases from the sample fell into this category. Two of these were affected by external factors. For example, one agreement involved raising water levels, where there is a high dependency on external factors in addition to the AH actions; the other agreement supports a larger priority site and expectations for the agreement itself were low. The other two cases demonstrate the impact of wider issues on agreement set up. For one, Higher Level Stewardship (HLS) funding is being used in its widest sense to restore habitats, rather than specific features and is not specific enough to achieve good scores for IoS. In another, the reason for low set up scores is the complex management required for a very specific and challenging feature (SSSI).

### 6.2 Comparative analysis with the NE QA exercise findings

The NE Quality Assurance (QA) exercise composite scores (relevant features identified, addressed and appropriate option applied) for a sub-set of the data (59 more recent cases with RAG scores) were tested against the field survey scores for a Spearman's rank correlation. The results show that there is no significant correlation between the two sets of scores (rho=-0.0403). This disparity most likely reflects the emphasis on process in the NE scores relative to the field assessment, which was more outcome based.

The distribution of the two sets of scores is set out in <u>Table 18Table 18</u> below, which suggests that for the vast majority of the agreements (11 from 12) with low scores in the field assessments, NE's scores were also low. There was only one agreement that was scored low in the field assessment but high in NE's assessment. However, there were more cases (34 from 47) where the agreements were scored high in field assessments but low in NE's scores. This may reflect some process-related criteria which are part of the NE QA exercise but are not captured in the field assessment. The secondary question is whether these represent a risk to successful agreement establishment or merely internal organisational risks for NE.

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|                       | Field Assessment Scores |     |        |             |  |  |  |
|-----------------------|-------------------------|-----|--------|-------------|--|--|--|
| NE QA exercise scores | LOWER                   | MID | HIGHER | Total cases |  |  |  |
| 0                     | 1                       | 3   | 8      | 12          |  |  |  |
| 1                     | 10                      | 15  | 26     | 51          |  |  |  |
| 2                     | 1                       | 11  | 9      | 21          |  |  |  |
| 3                     | 0                       | 6   | 4      | 10          |  |  |  |
| Total cases           | 12                      | 35  | 47     | 94          |  |  |  |

#### Table 18 Matrix of scores for NE QA exercise and field assessment

The composite NE QA exercise score was also tested against the range of input scores from the adviser interviews (Agreement holder characteristics; Need for advice; Advice input and Relationship with advisers) but no correlation was found.

### 6.3 Discussion

The evaluation results indicate that there is no evidence of strong correlations between input indicators (AH characteristics, need for advice, advice input, relationship with advisers) and the quality of agreement establishment although there is a weak correlation between AH characteristics and the appropriateness of the options selected (Spearman's coefficient=0.23, p=0.02). The underlying reason for the lack of correlation is a concentration towards high end scores for both input and set-up indicators, so that ranking is very unreliable.

A more in-depth examination of 16 cases where there was a misalignment between agreement establishment and AH's knowledge (of objectives and IoS) suggests that high levels of advice input to preparation of the agreement and option selection is a key success factor to deliver good agreement set up and can override AH limitations. Evidence also suggests that wider factors beyond on-farm features should be considered when evaluating agreement establishment, for example, the complexity of the option mix.

The study has also compared the evaluation scores from the field assessments with those from NE's desk-based QA exercise. The comparison of results suggest that although the two sets of evaluations have a different focus, notably NE's assessment were more process based, agreements that were scored low in field assessments were also scored low in NE's assessments. Where process issues can be addressed, the NE QA exercise may be a useful basis for highlighting problem cases.

Discussion and Recommendations

## 7 DISCUSSION AND RECOMMENDATIONS

This work has considered a sample of new Higher Level Stewardship (HLS) agreements which started in the final year of the scheme. In response to recommendations from the Making Environmental Stewardship More Effective (MESME) project, Natural England (NE) developed new guidance for the development and operational delivery of HLS agreements which was introduced in February 2013. NE undertook an internal, desk-based Quality Assurance (QA) exercise to test the implementation of this guidance. The research work presented in this report was a field-based assessment which complemented and supported the NE QA exercise. The purpose of the current work was to provide additional evidence to evaluate the quality of agreement set-up under the new guidance and to compare the results collected in the field with the NE desk-based QA exercise. In addition, this study aimed to assess the impact of the agreement holder's understanding on the potential to achieve the desired outcomes.

This work has shown that, for the elements of agreement set-up which were monitored in this study, most agreements were well set up with accurate Farm Environment Plans (FEPs), suitable options selected and appropriately set targets for outcomes (Indicators of Success). Similarly, most agreement holders had received appropriate advice and support through the agreement set-up phase. However, many agreements had at least some elements which could have been improved. Therefore, whilst recognising that HLS agreements are generally well set-up, this discussion focusses on areas where improvements could be made and makes recommendations for improved design and implementation. Although the HLS scheme itself is no longer available for new entrants, it is likely that the issues highlighted will be relevant for the new Countryside Stewardship.

The outcomes of this work are discussed in relation to each of the four project objectives.

## 7.1 Project Objective 1.

To assess the appropriateness of option placement, intended agreement outcomes and management prescriptions, given the physical assets of the holding and the local targeting objectives.

## **Option Selection at the Agreement Scale**

In a snapshot survey, with limited resource, it is not possible to fully assess whether agreements have been set up to maximise environmental benefits. A complete audit of features was not possible and the full background of reasons for including/excluding options/fields etc. and choice of options was not available. Detailed records of reasons and what was left out and why do not usually exist. The remote sensing exercise confirmed that important features had been effectively identified in the FEP. However, it was not possible within the methodology used here to assess whether priorities across all features on the holding were appropriate. Features may have been correctly identified in the FEP, but not included in the agreement, but it was beyond the scope of this work to evaluate the choice of options at this high level. Similarly, where multiple examples of a habitat were present, but only a subset was entered into the agreement, it was not possible to establish whether the most appropriate examples were under the agreement without a detailed audit of all similar features.

Discussion and Recommendations

For the purpose of future monitoring and evaluation, a short summary of features included and excluded from the agreement with justification would improve the ability to efficiently assess the quality of the agreement established. This summary would include reference to target statements and any agreement holder priorities or agronomic issues which may have influenced the choice of options or selection of parcels.

**Recommendation 1:** Agreement documentation should include a summary justification of options chosen and specific parcels entered. Equally important is a justification of features/parcels of environmental value which have not been included in the agreement.

#### **Targeting Statements**

Comparison of core options selected for the agreement with Target Area option lists, suggests that, in most cases, these statements are helping to direct the choice of options. However, this work did not involve a complete agreement-scale audit of all options and potential options. Therefore, it is not possible to fully assess the degree to which target statements are influencing the choice of options. Target Area Statements can include many feature types and where a wide range of features are present on a holding, it may be relatively easy to select features included in Target Area Statements. Regional Theme Statements which are provided outside Target Areas tend to have very long lists of recommended features. It was not possible to assess the impact of Regional Statements on the choice of options for an agreement because these statements often seemed to include most of the common option types, therefore most selected options would be expected to be listed in the statements.

Target Area Statements and Regional Theme statements might have more influence in the choice of options if they included an element of priority ranking or guidance on preferred option combinations. Since this work has shown that the option selection is largely determined by NE, this could be internal guidance, but it might help NE officers support a case for an option which is unpopular with the agreement holder.

**Recommendation 2:** The Target Area and Theme lists should be designed to include a ranking of priorities or preferred option combinations.

#### 7.2 Project Objective 2.

# To assess agreement holder understanding of, engagement with and attitude towards agreement requirements, intended outcomes and prescriptions.

#### **Choice of Options**

Professional organisations were able to influence the choice of options, but many farmers had limited influence over the choice of options and this does affect their understanding and engagement with the agreement and the management options it contains. The questions concerning capacity revealed that most of the work would be undertaken within the farm or holding business. Those who did not have the capacity would look to contractors or others (e.g. volunteers) to do this work. This was only a concern where the management required was quite specialist, for example grazing. Although it is well known to NE, it is important to stress that the feasibility of implementing options needs to be

assured as well as the environmental requirement. Overall the evidence was that agreement holders (AHs) have the capacity to undertake the work, mostly through the farm or holding business.

**Recommendation 3:** When choosing options for an HLS agreement, consideration should be given to the feasibility of implementing the option in terms of the demand on the existing business in terms of change in management and in the presence of important infrastructure and knowledge. Perhaps recommend training or courses in areas of poor knowledge or a 'buddy' who has implemented this option successfully.

#### **Agreement Documentation**

Although agreement holders initially found the documentation complex, they quite quickly became comfortable with what was required. However, even where AHs may know the management requirements for their agreement and are aware of the Indicators of Success (IoS) at least in very general terms, they do not routinely refer to the agreement documents in the level of detail required to be familiar with the specific IoS. This raises concerns that AHs might not fully understand their agreement. The interview data have shown that the agreement holders view their agreements as manageable but a small number of agreement holders feel that they are both complex to understand and implement. The documentation is viewed fairly often and 'respected'. The relationship with the NE officer continued with a third receiving on-going advice, largely it seems by just staying in touch through phone and email.

The surveyors working on this study found the agreement documentation somewhat confusing. Information regarding a single land parcel is spread across a number of documents and there is a lack of consistency in the location of information when additional documents such as management plans and SSSI (Sites of Special Scientific Interest) documentation are referred to. More concise and focussed documentation might improve the AH's level of engagement with and understanding of their agreement, which is likely to influence the outcomes (Boatman *et al.*, 2015).

**Recommendation 4:** Agreement documentation could be revised and restructured to present information in a format that is both more accessible to a farmer/landowner in terms of content and structured in a way more compatible with farming practice.

#### **Indicators of Success**

As noted above, the majority of agreement holders were not aware of the detail of the IoS, possibly, in part, because many are expressed in technical terms that most agreement holders would not be expected to understand. Although professional organisations will of course employ ecologists, many IoS define individual plant species which a non-specialist would not be expected to be able to identify. Indicators relating to identification of bird species are perhaps more likely to be understood by AHs because the range of species mentioned is much smaller than for plants, but sometimes include reference to particular behaviour. If IoS are intended for the AH to be able to monitor progress on their agreement, they should be presented and located in a way that is useful for the majority of agreement holders. Indicator species could be limited to a small number of more easily identifiable plants and AHs supplied with information on identification including pictures of the target indicator species. As part of the application process or the agreement itself, AHs

Discussion and Recommendations

could be offered training both in species identification/monitoring, and in more general principles of management. This may vary according to option and type of agreement holder. For woodland options agreement holders were more likely to see them as being successful but less sure what to do, perhaps because they did not undertake this management very often. For arable options they were less likely to see them as being successful but more confident regarding what was involved.

**Recommendation 5:** Training in general environmental principles and more specifically to allow agreement holders to monitor the progress of their agreements would improve engagement and could be delivered as part of the application process.

#### 7.3 Project Objective 3.

# To provide an indication of the quality of agreement establishment as a foundation for future delivery.

### Farm Environment Plan

In general, the Farm Environment Plan (FEP) has formed a good basis for the selection of options for individual parcels. Although, as discussed above the methodology used here as not allowed a full holding-level evaluation of whether more appropriate options or parcels could have been entered into the agreement. Evidence from this work indicates that all key features are included in the Farm Environment Plan (FEP), although there is some inflation of the quality of features, particularly for grasslands and the quality of recording of multiple options within a parcel was highly variable. Boatman *et al.* (2015) concluded that the agreement set-up was important to the success of the agreement, therefore this initial feature classification is a key contribution to agreement establishment. The interview data confirm that the FEP is a key part of the process and it should be one where all agreement holders are involved, even if transferring from one scheme to another.

The inflation of feature quality, which is particularly prevalent for grasslands, may arise for a variety of reasons (see Section 2.3). A more rigorous system for identifying where the habitat is present or where there is the potential to deliver a particular habitat is needed. Where potential is identified, this should be backed up with evidence such as soil test results showing low P status and detailed records of species present that are indicators of the target habitat.

**Recommendation 6:** Update FEP guidance to ensure accurate identification of features or where there is potential to restore a habitat and include evidence to justify decisions.

**Recommendation 7**: Ensure that all applicants, including those moving from one scheme to another have a full opportunity to review the previous management and fully engage in the preparation of the FEP in order for the strongest foundation for the agreement to be formed.

#### **Option Selection at the Parcel Scale**

Generally suitable options were chosen for the features although there were concerns over some feature types. Issues were due to the misidentification of the feature and the degree of change in feature quality that was required.

**Discussion and Recommendations** 

#### **Delivery Against Outcome Targets (Indicators of Success)**

Usually there are no overall objectives for agreements. This means that the only criteria against which to assess outcomes are the Indicators of Success (IoS). These are not always well suited to this purpose and only apply to individual options, rather than the agreement level.

**Recommendation 8:** Overall objectives for the agreement as a whole should be defined to provide a more holistic representation of the purpose of the agreement and how it links with neighbouring land (e.g. SSSI) and the wider ecological networks.

This work identified issues associated with the IoS which highlighted a lack of clarity over the purpose of these indicators and who they are aimed at. As currently implemented, the IoS have limited value as a means of assessing outcomes. If IoS are intended to be the focus of monitoring progress of agreements by NE, some IoS need to be much more clearly defined and more appropriately located within the agreement documentation. They should avoid indicators that are very dependent on surveyor interpretation (e.g. extent of habitats, % of forbs flowering). If IoS are intended for independent evaluation, then the type of monitoring should be considered. Indicators that require repeat visits (e.g. birds using the area regularly, variables that must be assessed at different times of year) will be less costeffective than those that can be recorded in a single visit. Also, for effective third party evaluation, additional documents such as management plans must be readily available and easily assimilated if they contribute to the indicators of progress.

**Recommendation 9**. The purpose of IoS should be defined and some indicators should be revised or removed from the templates to ensure that IoS are appropriate for their stated purpose.

#### 7.4 Project Objective 4.

## To provide an indication of the impact of agreement holder understanding and engagement and quality of agreement establishment on the potential to achieve agreement outcomes.

The complexity of the agreements and their documentation means that advice is important for most agreement holders and the NE officer is seen as central to the establishment of the agreement. The AHs are largely very positive about the NE officers, however it seems likely that not all NE officers have appropriate experience and/or can devote sufficient time to ensure that the agreement documentation is adequate and to support the AH through the course of the agreement. NE officers may also be constrained by internal processes regarding agreement set-up and delivery. Although not all AHs need advice to deliver the prescribed management, many agreements would benefit from the AH having a greater level of understanding of the agreement objectives and underlying ecological principles. For a minority of AHs, the advice will be critical to the agreement outcomes. It is clear from the interviews that high quality of agreement establishment will act as a foundation for the future delivery of the agreement.

**Recommendation 10:** Some inexperienced or overstretched NE officers need more guidance to ensure agreements are set up to a high standard and those AHs who most need it, should receive appropriate advice and support. The agreement should look to

build on existing knowledge and provide some back-up where new management is being implemented. This can be discussed and agreed with the agreement holder.

It is possible that uncertainty could be reduced by linking NE officers or other advisers with particular expertise in the particular options or types of agreement holders. Also the development of discussions groups would provide a further mechanism for agreement holders to engage with other agreement holders and advisers.

Most agreements are well or very well set up and this has constrained the use of correlation analysis which tested the role of the AH or advice input on agreement score. It is clear that the key components of agreement establishment are the site itself and the target features, which affect the options required and the overall complexity of management and the advisory input, both external and from NE who check the FEP and agree relevant options. In most cases the advisers are well informed and most problems with agreement set up relate to the complexity of the site/option management. The role of the AH appears less significant at this stage as they are rarely responsible for the FEP and/or selection of options and indicators. Investment in advice at this stage in improving AH knowledge and capacity only becomes evident after the agreement has been set up, when external input is often limited.

#### Value of a desk-based QA exercise

Comparison of the results of this work with the NE QA exercise indicates that, although a desk-based assessment is not a substitute for field monitoring, it does represent one way of identifying agreements with issues which warrant further investigation because set-up issues are often accompanied by process issues (the focus of the NE QA exercise).

Recommendation 11: Monitoring and evaluation should retain an in-field element.

# 7.5 Lessons learnt which would contribute to a more efficient monitoring programme

In addition to the discussion above, this evaluation encountered a number of issues associated with provision of data in an appropriate and accessible format which are summarised here.

#### **Individual Agreement Data**

Agreement information was often incomplete: GIS boundary data (shapefiles), all elements of basic dossier (FEP map, agreement map, part 2, part 4, part 5).

SSSI documents are not held on Genesis, therefore all information (e.g. management plans, IoS) is not readily available. Some FEPs are incomplete because information from SSSI documentation is not always included.

Feature condition classifications are different for the FEP and SSSIs. Without information for SSSIs it was not possible to assess the quality of condition codes for all features.

Data on individual agreements are held on the Genesis system as a series of individual files and was supplied for the project as a series of word and pdf documents. This format is not conducive to efficient data extraction and analysis as required by the scale of this project, as each file has to be searched manually and required data, e.g., for the population of the databases, copied individually. Outputs from the internal NE QA exercise were also supplied as individual word or pdf documents with no summary of scores. The content and format of these documents was not consistent, reflecting the development of the NE QA exercise.

**Recommendation 12:** Data should be supplied in a database format such as Access or Excel.

Further complications were caused by the poor data quality of the dossiers:

- Files were repeatedly mislabelled with or stored under agreement names that did not correspond to the content of the files, e.g., information on a different agreement was found within.
- Within the dossiers the labelling of individual files was inconsistent, making it more difficult to find the information required.
- The structure of the files was often inconsistent, e.g., headings or labels did not appear in the same order or differed between documents.

#### **Aerial Photography**

The Aerial Photography needed for the rapid assessments of the agreements by an experienced interpreter, prior to the fieldwork commencing, could not be delivered by Natural England in a feasible manner. The data are not available except for individual holdings, which makes large scale analysis impossible. Natural England's agreement with Astrium to distribute the most up-to-date photography to contractors entails the use of the geostore website for automated data orders. Orders are, according to size, either delivered via a download link or on DVDs.

Due to the scattered locations of the agreements across the whole of England an individual order for each farm would have had to be made. The data would then have been delivered on individual DVDs in 1 km<sup>2</sup> tiles. Multiple DVDs would have been required for many of the agreements due to their size.

The time involved to place the individual orders for over a hundred areas of interest, copy the data from potentially several hundred DVDs and mosaic an even larger number of 1 km<sup>2</sup> tiles proved to be prohibitive in the context of this project.

For this reason and in the interests of moving the project forward without further delay it was decided to use Google Earth imagery instead. This was only possible because the consortium member responsible for this part of the work already held a commercial license for the use of these images. If this had not been the case, a considerable additional cost would have been incurred.

**Recommendation 13:** The utility of geostore to deliver data to contractors should be reviewed. While the system works very well for individual orders of a small spatial extent it is not feasible for large datasets over disparate locations.

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Appendix 1

# **APPENDIX 1 - LIST OF HLS OPTIONS**

## **HLS Management options**

| HB11 | Maintenance of hedges of very high environmental value (2 sides) |
|------|--|
| HB12 | Maintenance of hedges of very high environmental value (1 side)  |
| HB14 | Management of ditches of very high environmental value           |
| HC10 | Creation of woodland outside of the SDA & ML                     |
| HC11 | Woodland livestock exclusion supplement                          |
| HC12 | Maintenance of wood pasture and parkland                         |
| HC13 | Restoration of wood pasture and parkland                         |
| HC14 | Creation of wood pasture   |
| HC15 | Maintenance of successional areas and scrub                      |
| HC16 | Restoration of successional areas and scrub                      |
| HC17 | Creation of successional areas and scrub                         |
| HC18 | Maintenance of high value traditional orchards                   |
| HC20 | Restoration of traditional orchards                              |
| HC21 | Creation of traditional orchards                                 |
| HC7  | Maintenance of woodland  |
| HC8  | Restoration of woodland  |
| HC9  | Creation of woodland in the SDA                                  |
| HD9  | Maintenance of designed/engineered water bodies                  |
| HE10 | Floristically enhanced grass margin                              |
| HF12 | Enhanced wild bird seed mix plots                                |
| HF14 | Unharvested, fertiliser-free conservation headland               |
| HF20 | Cultivated fallow plots or margins for arable plants             |
| HF24 | Supplementary feeding in winter for farmland birds               |
| HG7  | Low input spring cereal to retain or re-create an arable mosaic  |
| HJ5  | In-field grass areas to prevent erosion or run-off               |
| HK10 | Maintenance of wet grassland for wintering waders and wildfowl   |
| HK11 | Restoration of wet grassland for breeding waders.                |
| HK12 | Restoration of wet grassland for wintering waders and wildfowl   |
| HK13 | Creation of wet grassland for breeding waders                    |
| HK14 | Creation of wet grassland for wintering waders and wildfowl      |
| HK15 | Maintenance of grassland for target features                     |
| HK16 | Restoration of grassland for target features                     |
| HK17 | Creation of grassland for target features                        |
| HK18 | Supplement for haymaking   |
| HK6  | Maintenance of species-rich, semi-natural grassland              |
| HK7  | Restoration of species-rich, semi-natural grassland              |
| HK8  | Creation of species-rich, semi-natural grassland                 |
| HK9  | Maintenance of wet grassland for breeding waders                 |
| HL10 | Restoration of moorland  |
| HL13 | Moorland re-wetting supplement                                   |
| HL15 | Seasonal livestock exclusion supplement                          |

Appendix 1

| HLS Management options cont. |  |  |  |  |  |  |
|------------------------------|--|--|--|--|--|--|
| HL16                         | Shepherding supplement                                 |  |  |  |  |  |
| HL7                          | Maintenance of rough grazing for birds                 |  |  |  |  |  |
| HL9                          | Maintenance of moorland                                |  |  |  |  |  |
| HN8                          | Educational access - base payment                      |  |  |  |  |  |
| HN9                          | Educational access - payment per visit                 |  |  |  |  |  |
| HP10                         | Supplement for extensive grazing on saltmarsh          |  |  |  |  |  |
| HP6                          | Restoration of coastal saltmarsh                       |  |  |  |  |  |
| HQ1                          | Maintenance of ponds of high wildlife value < 100 sq m |  |  |  |  |  |
| HQ11                         | Wetland cutting supplement                             |  |  |  |  |  |
| HQ12                         | Wetland grazing supplement                             |  |  |  |  |  |
| HQ13                         | Inundation grassland supplement                        |  |  |  |  |  |
| HQ2                          | Maintenance of ponds of high wildlife value > 100 sq m |  |  |  |  |  |
| HQ6                          | Maintenance of fen                                     |  |  |  |  |  |
| HQ7                          | Restoration of fen                                     |  |  |  |  |  |
| HQ8                          | Creation of fen  |  |  |  |  |  |
| HQ9                          | Maintenance of lowland raised bog                      |  |  |  |  |  |
| HR1                          | Grazing supplement for cattle                          |  |  |  |  |  |
| HR2                          | Grazing supplement for native breeds at risk           |  |  |  |  |  |
| HR4                          | Supplement for control of invasive plant species       |  |  |  |  |  |
| HR5                          | Bracken control supplement                             |  |  |  |  |  |
| HR6                          | Supplement for small fields                            |  |  |  |  |  |
| HR7                          | Supplement for difficult sites                         |  |  |  |  |  |
| HR8                          | Supplement for group applications                      |  |  |  |  |  |
|                              |  |  |  |  |  |  |

### Appendix 2 - List of farm Environment Plan (FEP) Codes

#### Feature Feature code Arable Arable A01 Coastal Coastal salt marsh – BAP habitat C01 Coastal sand dunes - BAP habitat C02 Coastal vegetated shingle - BAP habitat C03 Littoral and sublittoral chalk – BAP habitat C04 Maritime cliffs and slopes – BAP habitat C05 Mudflats – BAP habitat C06 Saline lagoons – BAP habitat C07 **Field boundaries** F02 High environmental value boundary Grassland G02 Semi-improved grassland Lowland calcareous grassland - BAP habitat G04 Lowland dry acid grassland – BAP habitat G05 Lowland meadows - BAP habitat G06 Purple moor-grass and rush pastures - BAP habitat G07 Upland calcareous grassland – BAP habitat G08 Upland hay meadows – BAP habitat G09 Calaminarian grassland G10 Habitat for invertebrates G11 Habitat for breeding waders - lowland G12 Habitat for wintering waders and wildfowl G13 Habitat for breeding waders - upland G14 Coastal and flood plain grazing marsh - BAP habitat G15 Heathland and moorland Grass moorland and rough grazing M01 Fragmented heath M02 Lowland heath – BAP habitat M03 Upland heath – BAP habitat M04 Mountain heath – BAP habitat M05 Blanket bog – BAP habitat M06 Upland cliffs and screes M07 Upland flushes, fens and swamps -BAP habitat M08 Historic environment and landscape H01 Above-ground historic feature Below-ground historic feature H02 Historic routeway H03 Large-scale archaeological feature H04 Relict boundary of historic importance H05 Historic water meadow H06 Building – farm – traditional and roofed H07

#### **APPENDIX 2 - LIST OF FARM ENVIRONMENT PLAN (FEP) CODES**

H08

H09

H10

Building – military

Building – industrial

Building – other roofed building of historic importance

| Feature cont.   | Feature code |
|---|--------------|
| Structure – other (of historic or landscape interest)         | H11          |
| Built water feature   | H12          |
| Fence/railing of historic or landscape importance             | H13          |
| Designed landscape  | H14          |
| Parkland structure  | H15          |
| Limestone pavement  |              |
| Limestone pavement – BAP habitat                              | L01          |
| Natural resource protection                                   |              |
| Land at risk of generating diffuse pollution                  | N01          |
| Scrub, bracken and other tall vegetation                      |              |
| Scrub of high environmental value                             | V05          |
| Bracken of high environmental value                           | V05*         |
| Invasive plant species  | V06          |
| Trees, wood pasture, parkland, woodland and orchards          |              |
| Ancient trees   | T01          |
| Wood pasture and parkland – BAP habitat                       | Т03          |
| Mixed woodland  | Т06          |
| Plantation on ancient woodland site                           | T06*         |
| Landmark woodland   | Т07          |
| Native semi-natural woodland                                  | Т08          |
| Traditional orchards  | T15          |
| Wetland   |              |
| Aquifer-fed, naturally fluctuating water bodies – BAP habitat | W01          |
| Chalk rivers – BAP habitat                                    | W02          |
| Eutrophic standing waters – BAP habitat                       | W03          |
| Fens – BAP habitat  | W04          |
| Lowland raised bog – BAP habitat                              | W05          |
| Mesotrophic lakes – BAP habitat                               | W06          |
| Ponds – BAP habitat   | W07          |
| Reedbeds – BAP habitat  | W08          |

# Appendix 2 -

List of farm Environment Plan (FEP) Codes

| Option | No. in<br>Sample | No.<br>Assessed | Option | No. in<br>Sample | No.<br>Assessed |
|--------|------------------|-----------------|--------|------------------|-----------------|
| HB11   | 7                | 4               | HK12   | 2                | 2               |
| HB12   | 3                | 0               | HK13   | 1                | 1               |
| HB14   | 2                | 1               | HK14   | 1                | 1               |
| HC10   | 3                | 1               | HK15   | 48               | 35              |
| HC11   | 0                | 0               | HK16   | 15               | 14              |
| HC12   | 3                | 2               | HK17   | 4                | 4               |
| HC13   | 6                | 6               | HK18   | 0                | 0               |
| HC14   | 1                | 1               | HK6    | 24               | 10              |
| HC15   | 9                | 5               | HK7    | 41               | 36              |
| HC16   | 8                | 6               | НК8    | 1                | 1               |
| HC17   | 2                | 2               | НК9    | 4                | 3               |
| HC18   | 2                | 1               | HL10   | 14               | 13              |
| HC20   | 4                | 3               | HL12   | 0                | 0               |
| HC21   | 1                | 1               | HL13   | 0                | 0               |
| HC7    | 24               | 10              | HL15   | 0                | 0               |
| HC8    | 22               | 18              | HL16   | 0                | 0               |
| HC9    | 3                | 0               | HL7    | 5                | 5               |
| HD8    | 1                | 1               | HL9    | 2                | 0               |
| HD9    | 2                | 0               | HN8    | 8                | 0               |
| HE10   | 16               | 10              | HN9    | 7                | 0               |
| HF11   | 1                | 0               | HO2    | 5                | 5               |
| HF12   | 17               | 10              | HO3    | 1                | 1               |
| HF12NR | 5                | 4               | HP10   | 0                | 0               |
| HF14   | 5                | 1               | HP2    | 1                | 1               |
| HF15   | 1                | 0               | HP6    | 1                | 1               |
| HF20   | 7                | 4               | HQ1    | 5                | 1               |
| HF20NR | 2                | 1               | HQ11   | 0                | 0               |
| HF24   | 4                | 0               | HQ12   | 0                | 0               |
| HG6    | 2                | 1               | HQ13   | 0                | 0               |
| HG7    | 4                | 2               | HQ2    | 4                | 4               |
| HJ3    | 1                | 1               | HQ3    | 2                | 2               |
| HJ4    | 1                | 1               | HQ6    | 5                | 2               |
| HJ6    | 1                | 1               | HQ7    | 11               | 8               |
| HJ8    | 0                | 0               | HQ8    | 1                | 1               |
| HK10   | 5                | 5               | HQ9    | 1                | 1               |
| HK11   | 3                | 3               |        |                  |                 |

# APPENDIX 3 - FIELD SURVEY RESULTS

 Table 19
 Occurrence of core options in the 102 agreements and assessed in this study

| Code in Agree      | ement | FEI          | P code | Incorrect code recorded in agreement                                   |
|--------------------|-------|--------------|--------|--|
| 0                  |       | confirmed by |        |  |
|                    |       | sui          | rvevor |  |
| FEP code           | n     | n            | %      | New Code as Assessed by Field Surveyor                                 |
| A01 <sup>1</sup>   | 38    | 38           | 100    |  |
| Blank <sup>2</sup> | 10    | 5            | 50     | G02 (2); M08 (1); V05 (1); W04 (1)                                     |
| C01                | 1     | 1            | 100    |  |
| C02                | 1     | 1            | 100    |  |
| C05                | 1     | 1            | 100    |  |
| F02/F09            | 8     | 7            | 87     | V05 (1)  |
| G01                | 3     | 3            | 100    |  |
| G02                | 46    | 28           | 61     | G01 (8); G05 (1); G06 (1); G09 (1); G15 (1); M01 (4); M08 (1); W04 (1) |
| G04                | 11    | 11           | 100    |  |
| G05                | 4     | 1            | 25     | G02 (2); G04 (1)   |
| G06                | 31    | 17           | 55     | G01 (2): G02 (11): G05 (1)   |
| G07                | 8     | 7            | 87     | G02 (1)  |
| G09                | 1     | 1            | 100    | (-)  |
| G11                | 3     | 3            | 100    |  |
| G12                | 6     | 5            | 83     | 602 (1)  |
| G13                | 6     | 5            | 83     | G02 (1)  |
| G14                | 10    | 9            | 90     | G12 (1)  |
| G15                | 15    | 15           | 100    |  |
| H01                | 13    | 13           | 100    |  |
|                    | 2     | 15           | 75     |  |
| H02                | 4     | 1            | 100    | 101 (2)  |
|                    | 4     | 4            | 100    |  |
|                    | 1     | 1            | 100    |  |
| HUS                | 3     | 3            | 100    |  |
| HU6                | 1     | 1            | 100    |  |
| HU7                | 1     | 1            | 100    |  |
| HII                | 1     | 1            | 100    |  |
| H14                | /     | /            | 100    | CO2 (4) N400 (4)   |
| MUI                | 9     | /            | /8     | GU2 (1); MU8 (1)   |
| M02                | 3     | 1            | 33     | MU1 (2)  |
| M03                | 3     | 3            | 100    |  |
| M04                | 10    | 10           | 100    |  |
| M06                | 8     | 8            | 100    |  |
| M07                | 2     | 2            | 100    |  |
| M08                | 5     | 5            | 100    |  |
| N01                | 3     | 3            | 100    |  |
| T01                | 2     | 2            | 100    |  |
| т03                | 8     | 8            | 100    |  |
| T06                | 11    | 8            | 73     | F02/F09 (1); T07 (1); T08 (1)  |
| Т07                | 1     | 1            | 100    |  |
| T08                | 27    | 25           | 93     | T06 (1);V05 (1)  |
| T15                | 4     | 4            | 100    |  |
| V05                | 8     | 8            | 100    |  |
| W04                | 10    | 7            | 70     | G01 (1); M03 (1); T08 (1)  |
| W05                | 3     | 2            | 67     | T08 (1)  |
| W07                | 7     | 7            | 100    |  |
| W08                | 2     | 2            | 100    |  |

#### Table 20 Inconsistencies in FEP codes recorded by field surveyors against individual codes in agreements

<sup>1</sup> Could be A01, G01, G02 or blank and still be correct <sup>2</sup> Could be A01, G01 or blank and still be correct

|              | n   |           | Surveyed as different |          | Condition | code recorded | d by field |
|--------------|-----|-----------|-----------------------|----------|-----------|---------------|------------|
|              |     | Same      | Higher (A             | Lower (B |           | Surveyor      |            |
| FEP code     |     | condition | or B)                 |          | A         | В             | С          |
| <u></u>      | 1   | 1         | 01.07                 | 01 07    |           |               | 1          |
| C05          | 1   | 1         |                       |          |           | 1             | -          |
| E02/E09      | 4   | 2         | 1                     | 1        | 2         | 1             | 1          |
| G04          | 7   | 5         | 1                     | 1        | 2         | 1             | 4          |
| G05          | 1   | 1         | 1                     | 1        | 1         |               | -          |
| G06          | 15  | 7         |                       | 8        | 1         | з             | 11         |
| G07          | 5   | 2         |                       | 3        | -         | 1             | 4          |
| G09          | 1   | -         |                       | U        |           | - 1           |            |
| G11          | 3   | 2         |                       | 1        |           | 2             | 1          |
| G12          | 5   | 4         | 1                     | _        | 4         | -             | _          |
| G13          | 4   | 1         | 1                     | 2        | 2         | -             | 2          |
| G14          | 9   | 8         |                       | 1        | 5         | 4             |            |
| G15          | 10  | 4         | 3                     | 3        | 6         | 4             |            |
| H01          | 10  | 6         | 1                     | 3        | 4         | 2             | 4          |
| H02          | 5   | 5         |                       |          | 4         | 1             |            |
| H03          | 1   | 1         |                       |          |           | 1             |            |
| H05          | 3   | 3         |                       |          |           |               | 3          |
| H06          | 1   | 1         |                       |          | 1         |               |            |
| H14          | 5   | 4         |                       | 1        | 2         | 1             | 2          |
| M03          | 3   | 3         |                       |          |           | 1             | 2          |
| M04          | 3   | 2         |                       | 1        | 2         | 1             |            |
| M06          | 4   | 2         |                       | 2        | 1         | 2             | 1          |
| M07          | 1   | 1         |                       |          |           | 1             |            |
| M08          | 2   | 0         |                       | 2        |           | 2             |            |
| T01          | 2   | 2         |                       |          | 1         | 1             |            |
| т03          | 6   | 4         | 1                     | 1        | 1         | 1             | 4          |
| т06          | 5   | 3         | 2                     |          | 3         | 1             | 1          |
| Т07          | 1   | 0         |                       | 1        |           | 1             |            |
| т08          | 14  | 9         | 1                     | 4        | 3         | 5             | 6          |
| T15          | 4   | 2         |                       | 2        |           | 2             | 2          |
| V05          | 3   | 1         | 1                     | 1        |           | 1             | 2          |
| W04          | 3   | 3         |                       |          | 2         |               | 1          |
| W05          | 2   | 0         |                       | 2        |           |               | 2          |
| W07          | 5   | 3         | 1                     | 1        | 3         | 1             | 1          |
| W08          | 1   | 0         |                       | 1        |           | 1             |            |
| All features | 150 | 94        | 20                    | 36       | 51        | 44            | 55         |

## Table 21 Comparison of condition code recorded in the agreement and assessed by surveyors for individual FEP codes for all options assessed

| Option | Red | Amber | Green | Total | % Green |
|--------|-----|-------|-------|-------|---------|
| HB11   |     |       | 4     | 4     | 100     |
| HB14   |     |       | 1     | 1     | 100     |
| HC7    |     | 2     | 9     | 11    | 82      |
| HC8    |     | 3     | 20    | 23    | 87      |
| HC10   |     |       | 1     | 1     | 100     |
| HC12   | 1   |       | 1     | 2     | 50      |
| HC13   |     | 1     | 7     | 8     | 88      |
| HC14   |     |       | 1     | 1     | 100     |
| HC15   |     | 2     | 3     | 5     | 60      |
| HC16   |     |       | 9     | 9     | 100     |
| HC17   |     |       | 2     | 2     | 100     |
| HC18   |     |       | 1     | 1     | 100     |
| HC20   |     |       | 3     | 3     | 100     |
| HC21   |     |       | 1     | 1     | 100     |
| HD8    |     | 1     |       | 1     | 0       |
| HE10   | 2   |       | 11    | 13    | 85      |
| HF12   |     |       | 10    | 10    | 100     |
| HF12NR |     |       | 4     | 4     | 100     |
| HF14   |     |       | 1     | 1     | 100     |
| HF20   |     |       | 4     | 4     | 100     |
| HF20NR |     |       | 1     | 1     | 100     |
| HG6    |     |       | 1     | 1     | 100     |
| HG7    |     |       | 2     | 2     | 100     |
| HJ3    |     |       | 1     | 1     | 100     |
| HJ4    |     |       | 1     | 1     | 100     |
| HJ6    |     |       | 1     | 1     | 100     |
| HK6    | 2   | 1     | 9     | 12    | 75      |
| HK7    | 2   | 8     | 38    | 48    | 79      |
| НК8    |     | 1     |       | 1     | 0       |
| НК9    | 3   |       | 4     | 7     | 57      |
| HK10   | 1   | 3     | 3     | 7     | 43      |
| HK11   |     | 3     | 5     | 8     | 63      |
| HK12   |     |       | 4     | 4     | 100     |
| HK13   |     |       | 1     | 1     | 100     |
| HK14   |     | 2     |       | 2     | 0       |
| HK15   | 1   | 3     | 57    | 61    | 93      |
| HK16   | 2   | 3     | 13    | 18    | 72      |
| HK17   |     |       | 4     | 4     | 100     |
| HL7    |     | 1     | 11    | 12    | 92      |
| HL10   |     | 2     | 23    | 25    | 92      |
| HO2    |     | 3     | 2     | 5     | 40      |
|        |     |       |       |       |         |

 Table 22
 Appropriateness of the option selection for individual options (includes multiple assessments against multiple FEP codes)

| Option | Red | Amber | Green | Total | % Green |
|--------|-----|-------|-------|-------|---------|
| HO3    |     |       | 1     | 1     | 100     |
| HP2    |     |       | 1     | 1     | 100     |
| HP6    |     |       | 2     | 2     | 100     |
| HQ1    |     |       | 1     | 1     | 100     |
| HQ2    |     |       | 4     | 4     | 100     |
| HQ3    |     |       | 2     | 2     | 100     |
| HQ6    |     |       | 2     | 2     | 100     |
| HQ7    |     | 4     | 5     | 9     | 56      |
| HQ8    |     |       | 1     | 1     | 100     |
| HQ9    |     |       | 2     | 2     | 100     |

Appendix 3 - Field survey results

 Table 23
 Scores for appropriate option type for all options

| Option | Red | Amber | Green | Total | % Red | % Amber | % Green |
|--------|-----|-------|-------|-------|-------|---------|---------|
| HB11   |     | 1     | 11    | 12    | 0     | 8       | 92      |
| HB14   |     |       | 8     | 8     | 0     | 0       | 100     |
| HC7    | 2   | 5     | 32    | 39    | 5     | 13      | 82      |
| HC8    |     | 9     | 70    | 79    | 0     | 11      | 89      |
| HC10   |     | 2     | 2     | 4     | 0     | 50      | 50      |
| HC11   |     |       | 2     | 2     | 0     | 0       | 100     |
| HC12   | 1   | 1     | 7     | 9     | 11    | 11      | 78      |
| HC13   |     | 11    | 33    | 44    | 0     | 25      | 75      |
| HC14   |     |       | 1     | 1     | 0     | 0       | 100     |
| HC15   | 1   | 4     | 26    | 31    | 3     | 13      | 84      |
| HC16   |     | 3     | 44    | 47    | 0     | 6       | 94      |
| HC17   |     | 1     | 13    | 14    | 0     | 7       | 93      |
| HC18   |     |       | 3     | 3     | 0     | 0       | 100     |
| HC20   |     | 1     | 9     | 10    | 0     | 10      | 90      |
| HC21   |     |       | 2     | 2     | 0     | 0       | 100     |
| HE10   |     | 1     | 37    | 38    | 0     | 3       | 97      |
| HF12   |     | 1     | 53    | 54    | 0     | 2       | 98      |
| HF12NR |     |       | 15    | 15    | 0     | 0       | 100     |
| HF14   |     |       | 7     | 7     | 0     | 0       | 100     |
| HF20   |     | 1     | 11    | 12    | 0     | 8       | 92      |
| HF20NR |     |       | 3     | 3     | 0     | 0       | 100     |
| HG6    |     |       | 2     | 2     | 0     | 0       | 100     |
| HG7    |     | 1     | 9     | 10    | 0     | 10      | 90      |
| HJ3    |     |       | 4     | 4     | 0     | 0       | 100     |
| HJ4    |     |       | 4     | 4     | 0     | 0       | 100     |
| HJ6    |     | 1     | 3     | 4     | 0     | 25      | 75      |
| HJ8    |     |       | 1     | 1     | 0     | 0       | 100     |
| HK6    |     | 7     | 58    | 65    | 0     | 11      | 89      |
|        |     |       |       |       |       |         |         |

| Option | Red | Amber | Green | Total | % Red | % Amber | % Green |
|--------|-----|-------|-------|-------|-------|---------|---------|
| HK7    | 19  | 29    | 199   | 247   | 8     | 12      | 81      |
| НК8    |     |       | 1     | 1     | 0     | 0       | 100     |
| НК9    |     | 5     | 13    | 18    | 0     | 28      | 72      |
| HK10   | 1   | 2     | 26    | 29    | 3     | 7       | 90      |
| HK11   |     | 1     | 15    | 16    | 0     | 6       | 94      |
| HK12   |     |       | 16    | 16    | 0     | 0       | 100     |
| HK13   |     |       | 8     | 8     | 0     | 0       | 100     |
| HK14   | 1   |       | 4     | 5     | 20    | 0       | 80      |
| HK15   | 5   | 18    | 136   | 159   | 3     | 11      | 86      |
| HK16   |     | 6     | 58    | 64    | 0     | 9       | 91      |
| HK17   |     | 2     | 7     | 9     | 0     | 22      | 78      |
| HK18   |     |       | 4     | 4     | 0     | 0       | 100     |
| HQ13   |     |       | 2     | 2     | 0     | 0       | 100     |
| HL7    |     | 2     | 34    | 36    | 0     | 6       | 94      |
| HL10   | 2   | 8     | 219   | 229   | 1     | 3       | 96      |
| HL13   |     |       | 5     | 5     | 0     | 0       | 100     |
| HL15   |     |       | 7     | 7     | 0     | 0       | 100     |
| HL16   |     | 2     | 4     | 6     | 0     | 33      | 67      |
| HO2    | 6   | 5     | 45    | 56    | 11    | 9       | 80      |
| HO3    |     |       | 5     | 5     | 0     | 0       | 100     |
| HP2    |     | 1     | 5     | 6     | 0     | 17      | 83      |
| HP6    |     |       | 5     | 5     | 0     | 0       | 100     |
| HQ1    |     |       | 4     | 4     | 0     | 0       | 100     |
| HQ2    |     | 1     | 11    | 12    | 0     | 8       | 92      |
| HQ3    |     |       | 21    | 21    | 0     | 0       | 100     |
| HQ6    |     | 2     | 9     | 11    | 0     | 18      | 82      |
| HQ7    | 6   | 6     | 30    | 42    | 14    | 14      | 71      |
| HQ8    |     |       | 9     | 9     | 0     | 0       | 100     |
| HQ9    |     |       | 4     | 4     | 0     | 0       | 100     |
| HQ12   |     | 2     | 10    | 12    | 0     | 17      | 83      |
| HR2    |     | 1     | 5     | 6     | 0     | 17      | 83      |
| HR4    | 1   | 5     | 16    | 22    | 5     | 23      | 73      |
| HR5    |     |       | 8     | 8     | 0     | 0       | 100     |
| HR6    |     |       | 5     | 5     | 0     | 0       | 100     |

| Option | Red | Amber | Green | Total | % Red | % Amber | % Green |
|--------|-----|-------|-------|-------|-------|---------|---------|
| HB11   | 1   | 2     | 9     | 12    | 8     | 17      | 75      |
| HB14   |     | 3     | 5     | 8     | 0     | 38      | 63      |
| HC7    | 2   | 7     | 30    | 39    | 5     | 18      | 77      |
| HC8    | 5   | 27    | 47    | 79    | 6     | 34      | 59      |
| HC10   |     | 2     | 2     | 4     | 0     | 50      | 50      |
| HC11   |     |       | 2     | 2     | 0     | 0       | 100     |
| HC12   | 1   |       | 8     | 9     | 11    | 0       | 89      |
| HC13   | 3   | 17    | 24    | 44    | 7     | 39      | 55      |
| HC14   |     |       | 1     | 1     | 0     | 0       | 100     |
| HC15   | 1   | 10    | 20    | 31    | 3     | 32      | 65      |
| HC16   | 2   | 10    | 35    | 47    | 4     | 21      | 74      |
| HC17   | 2   | 6     | 6     | 14    | 14    | 43      | 43      |
| HC18   |     | 1     | 2     | 3     | 0     | 33      | 67      |
| HC20   |     | 1     | 9     | 10    | 0     | 10      | 90      |
| HC21   |     |       | 2     | 2     | 0     | 0       | 100     |
| HE10   | 6   | 7     | 25    | 38    | 16    | 18      | 66      |
| HF12   |     | 8     | 46    | 54    | 0     | 15      | 85      |
| HF12NR |     | 1     | 14    | 15    | 0     | 7       | 93      |
| HF14   |     | 2     | 5     | 7     | 0     | 29      | 71      |
| HF20   | 1   | 5     | 6     | 12    | 8     | 42      | 50      |
| HF20NR |     | 1     | 2     | 3     | 0     | 33      | 67      |
| HG6    |     |       | 2     | 2     | 0     | 0       | 100     |
| HG7    | 1   | 1     | 8     | 10    | 10    | 10      | 80      |
| HJ3    |     |       | 4     | 4     | 0     | 0       | 100     |
| HJ4    |     | 1     | 3     | 4     | 0     | 25      | 75      |
| HJ6    |     |       | 4     | 4     | 0     | 0       | 100     |
| HJ8    |     |       | 1     | 1     | 0     | 0       | 100     |
| HK6    | 1   | 15    | 49    | 65    | 2     | 23      | 75      |
| HK7    | 22  | 64    | 161   | 247   | 9     | 26      | 65      |
| HK8    |     | 1     |       | 1     | 0     | 100     | 0       |
| НК9    |     | 5     | 13    | 18    | 0     | 28      | 72      |
| HK10   | 1   | 7     | 21    | 29    | 3     | 24      | 72      |
| HK11   |     | 3     | 13    | 16    | 0     | 19      | 81      |
| HK12   |     | 6     | 10    | 16    | 0     | 38      | 63      |
| HK13   |     |       | 8     | 8     | 0     | 0       | 100     |
| HK14   | 1   | 1     | 3     | 5     | 20    | 20      | 60      |
| HK15   | 11  | 38    | 110   | 159   | 7     | 24      | 69      |
| HK16   | 5   | 11    | 48    | 64    | 8     | 17      | 75      |
| HK17   |     | 3     | 6     | 9     | 0     | 33      | 67      |
| HK18   | 2   | 1     | 1     | 4     | 50    | 25      | 25      |
| HQ13   |     |       | 2     | 2     | 0     | 0       | 100     |
| HL7    |     | 2     | 34    | 36    | 0     | 6       | 94      |

 Table 24
 Scores for appropriate option level for all options

| Option | Red | Amber | Green | Total | % Red | % Amber | % Green |
|--------|-----|-------|-------|-------|-------|---------|---------|
| HL10   | 13  | 65    | 151   | 229   | 6     | 28      | 66      |
| HL13   |     |       | 5     | 5     | 0     | 0       | 100     |
| HL15   |     | 1     | 6     | 7     | 0     | 14      | 86      |
| HL16   |     |       | 6     | 6     | 0     | 0       | 100     |
| HO2    | 9   | 14    | 33    | 56    | 16    | 25      | 59      |
| HO3    | 1   | 3     | 1     | 5     | 20    | 60      | 20      |
| HP2    |     | 1     | 5     | 6     | 0     | 17      | 83      |
| HP6    |     | 3     | 2     | 5     | 0     | 60      | 40      |
| HQ1    |     | 1     | 3     | 4     | 0     | 25      | 75      |
| HQ2    | 1   | 4     | 7     | 12    | 8     | 33      | 58      |
| HQ3    |     | 8     | 13    | 21    | 0     | 38      | 62      |
| HQ6    | 1   | 3     | 7     | 11    | 9     | 27      | 64      |
| HQ7    | 9   | 16    | 17    | 42    | 21    | 38      | 40      |
| HQ8    |     | 2     | 7     | 9     | 0     | 22      | 78      |
| HQ9    |     | 3     | 1     | 4     | 0     | 75      | 25      |
| HQ12   | 3   | 3     | 6     | 12    | 25    | 25      | 50      |
| HR2    |     | 2     | 4     | 6     | 0     | 33      | 67      |
| HR4    | 1   | 8     | 13    | 22    | 5     | 36      | 59      |
| HR5    |     | 1     | 7     | 8     | 0     | 13      | 88      |
| HR6    |     |       | 5     | 5     | 0     | 0       | 100     |

### APPENDIX 4 – COMMUNICATION WITH AGREEMENT HOLDERS AND INTERVIEW QUESTIONNAIRE

CUSTNAME ADD1 ADD2 ADD3 ADD4

AGREF

Lesley Blainey Land Management Strategy Unit Natural England

Date

#### Dear Sir/Madam

#### Assessing the role of advice and support in the establishment of HLS agreements (RP1571)

As a recent HLS agreement holder, your name has been selected to participate in a project that will help Defra and Natural England to understand the impact of any advice and support that you received in preparing and establishing your HLS agreement. The findings from this project will feed directly into the new agri-environment scheme that is currently being developed, to make sure that the best parts of Environmental Stewardship are retained and enhanced into the new scheme.

The interviews are being organised by the Countryside and Community Research Institute (CCRI) with support from the Food and Environment Research Agency (Fera) and ADAS UK Ltd. They will be contacting a small number of agreement holders, selected from across your locality, for a face-to-face interview lasting about an hour. This would be followed within the next few months by a walkover field survey of the farm by an ecologist from Fera or ADAS. This visit would be over a morning or afternoon and you will be contacted before hand by the surveyor. There would be no need for you to accompany the surveyor during this field survey. The survey is voluntary and the information you provide is covered by the 1998 Data Protection Act; it will not be used for any purpose other than for this study. The report will present the overall findings and no individual agreement holder will be identifiable.

An interviewer from the CCRI, Fera or ADAS will contact you over the coming few weeks to see if you, or the principle decision-maker within your farm business, would be willing to take part in the

research. I hope that you will be able to help us by providing the benefit of your experience in the establishment of your HLS agreement. We will send you a two-page summary of the final report,

which will give a general overview of the outcomes from the research as well as a link to the full version of the report.

Your participation in this research will be greatly appreciated as it is important to get a range of views and experiences. If you have any queries about the research please contact Chris Short at CCRI on 01242 714122 or Lesley Blainey in Natural England via the contact details on the letter.

Yours faithfully,

Al Blainey

Lesley Blainey mailto:lesley.j.blainey@naturalengland.org.uk

Assessing the role of advice and support in the establishment of HLS agreements (Project RP1571)

Sample No (UID):Interviewer Name:

Interviewee Name:

Interviewee Position with respect of HLS agreement and Business:

Time start:Time finish:

#### Introduction

Interviewer: The purpose of this research is to obtain a measure of the role that advice and support play in establishing an HLS agreement. Also the views of HLS agreement holders their understanding of, and support for, the intend outcomes of their agreement and the requirements this needs.

Check that the interviewee has received a letter outlining the research. Give a brief reminder that:

- The key purpose of the interviews to undertake a thorough assessment of the role that
  advice and support play in establishing HLS agreement that will deliver high quality
  environmental outcomes. This will involve establishing the importance of the various bits of
  advice and support received and to consider whether the interviewee felt these were
  appropriate, relevant and assists them to understand the requirements of the HLS
  agreement and the likely impacts of these interventions.
- The survey is confidential and details of individual questionnaires won't be released to third parties. The research will not identify anyone taking part in the research nor will they be identifiable in the final report.
- The interview is in 4 parts: First the questions refer to the farm business, second an overview of your engagement with AES. Third, a review of the overall HLS agreement. The fourth section discusses the various bits of advice and support received from different parties.
- Ask if the agreement holder is happy for the interview to be recorded. Reassure them that it helps make sure that important points that come up during the interview are not missed but is not used in any other way.

• The interviews usually take about an hour (max an hour and a half). Suggested timings are given for each section.

### Section 1 You and your farm (10 mins)

•Background aspects to the holding like tenure and structure •Factors influencing decision making in the future

1. What is the total area of the holding/farm and how much of it is [offer land tenure options and record in table below]? (option to record in acres and use other column)

a.Total area ..... Hectare ..... acres

2. How much of the land is covered by the HLS agreement? (Include option to record in acres)

| Tenure   | Total      | HLS        |
|--|------------|------------|
|  | (ha or ac) | (ha or ac) |
| Owner-occupied                                   |            |            |
| Rented in - Tenanted (Full Agricultural Tenancy) |            |            |
| Rented in – Other agreements (Farm Business      |            |            |
| Tenancy or other agreements of 1 year or less)   |            |            |
| Rented out                                       |            |            |
| Contract / share farming                         |            |            |
| Common land                                      |            |            |
| Total area farmed                                |            |            |

3. Please give the approximate areas for each of these 6 land types (ha or acres)

|  | На | Acres |
|--|----|-------|
| Arable crops (cultivated land)                     |    |       |
| Permanent crops and orchards                       |    |       |
| Permanent grassland & grass leys (enclosed fields) |    |       |
| Rough grazing (open unenclosed hills/commons)      |    |       |
| Woodland   |    |       |
| Other  |    |       |

4. Which best describes the farm type of the farm? (Show prompt card and ask them to choose one)

Mainly arable / mainly dairy / upland beef & sheep / lowland beef & sheep / pigs / poultry / horticulture / other

5. Since this research is about the role of advice and support, we are interested to know if you receive and act on advice and support in other areas of your business. Do you receive any advice and support in relation to other areas of your business, for example on ... ?

a.The financial side of your business? (e.g. consultant, accountant) .....

b.Production aspects of enterprises (e.g. agronomist, assurance scheme) .....

c.Marketing your products (e.g. agencies, buyers) .....

d.Environment aspects (other than AES) (e.g. habitats, buildings) .....

6. Would you describe the farm as (record one only)

a.Agricultural / non-agricultural / not a commercial operation

7. Which of these statements reflect your current plans for the future (next 5 years)? (choose one only)

a.I plan to sell off the business

b.I plan to reduce the size/intensity of the business

c.l intend to maintain my business without major changes

d.I plan to grow/intensify the business

e.I plan to diversify the business

f.l intend to change the business but direction of change uncertain at current time

Note details offered:

8.Please can you tell me your age in years ....

9. Will a member of your family take on the management of the farm after you retire?

Definitely / very likely / possibly / unlikely / definitely not /Don't know / Not applicable

10. Approximately how much of your business income (including AES and SPS) derives from the agricultural enterprises on the farm?

All of it / most of it / about half / less than half / very little/none

Time .....

| Section 2 E   | Background to A  | ES involvement (15 mins)                            |        |  |  |  |  |
|---|--|---|--------|--|--|--|--|
| Discussing your history of invo<br>Your views on combining agrie<br>Your thoughts on the overall in | olvement with agri-er<br>culture and conserva<br>mpact of the HLS ag | nvironments schemes<br>tion<br>reement              |        |  |  |  |  |
| 11.What do you feel are the key environmental features on your holding, what is their importance?   |  |   |        |  |  |  |  |
| 12. How do they relate to your farm business and enterprises?                                       |  |   |        |  |  |  |  |
|   |  |   |        |  |  |  |  |
| 13.Can you briefly outline<br>range of agreements, I  | your involvement wi<br>key features)                                 | th agri-environment schemes ( <i>record first o</i> | ne and |  |  |  |  |
| Scheme  | Dates  | Features  |        |  |  |  |  |

| Scheme | Dates | Features |
|--------|-------|----------|
|        |       |          |
|        |       |          |
|        |       |          |
|        |       |          |
|        |       |          |

14.Please indicate how much you agree or disagree with each of the following 4 statements are concerning the nature of the relationship between conservation and agriculture. For each I need to record one of four options. (*show prompt card*)

| a.Conservation should be an integral part of agricultural | Strongly Agree / Agree /      |
|---|-------------------------------|
| activity  | Disagree / Strongly Disagree. |
| b.Conservation activity is detrimental to efficient       | SA/A/D/SD                     |
| agricultural activity                                     |                               |
| c.Farmers should take on more responsibility for the      | SA/A/D/SD                     |
| environment   |                               |
| d.Agri-environment schemes are the most effective way     | SA/A/D/SD                     |
| to make farmers take an interest in conservation          |                               |

15.Are you a member of an environmental group or conservation organization? Yes / No If yes, which one(s) ... (*note all those offered*)

16. What do you think your HLS agreement is trying to achieve?

17. What were the three main reasons for you taking up your current HLS agreement?

| 1. |  |  |  |
|----|--|--|--|
|    |  |  |  |
| 2. |  |  |  |
|    |  |  |  |
| 3. |  |  |  |
|    |  |  |  |

18. Which of the following do you consider to be the three most important aspects within your HLS agreement? With 1 being the most important. (*show prompt card*)

| Objective of HLS   | Score (1, 2 or 3) |
|--|-------------------|
| a. Will improve the landscape                              |                   |
| b. Will benefit native plants and wildlife                 |                   |
| c. Will improve access                                     |                   |
| d. Will increase protection for soil and water             |                   |
| e. Will help towards reducing or mitigating climate change |                   |
| f. Will improve protection of heritage and the historical  |                   |
| environment  |                   |

19. How complex do you feel your HLS agreement is to?

a.Understand (Very complex, Complex but manageable, Very manageable) b.Implement (Very complex, Complex but manageable, Very manageable)

20.How important/comprehensive is the final agreement documentation to you? a.Very important /Important / Unimportant b.Very comprehensive / fairly comprehensive / Not at all comprehensive

21.Do you look at it: regularly / occasionally / hardly at all: Comments on the above (Q19, 20 and 21):
Time .....

## Section 3 Overall advice and support received (20 mins)

The overall process from registering your interest to the signed agreement. An assessment of the advice and support you have received in relation to the HLS agreement. How appropriate, relevant it was to your situation.

22.Can you recall the various stages in securing your HLS agreement? (*show prompt card*) For each stage that you recall, what advice and support did you receive (e.g. NE officer, conservation adviser, own agric adviser, other source)?

|   | Advice received from | n: (record for each) |    |  |
|---|----------------------|----------------------|----|--|
| Stage:                                      | Source 1: NE officer | 2:                   | 3: |  |
| Responding to expression of interest Y/N    |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |
| Initial visit Y/N                           |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |
| Help in Preparing and submitting FEP Y/N    |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |
| Formal visit to discuss FEP & agreement Y/N |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |
| Checking & signing of agreement Y/N         |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |
| Implementation Y/N                          |                      |                      |    |  |
| If Yes, was it satisfactory/unsatisfactory? |                      |                      |    |  |
| Record comments on those involved re        |                      |                      |    |  |
| Quality of A&S (amount/length), and its     |                      |                      |    |  |
| timeliness                                  |                      |                      |    |  |

•Which stage(s) was (were) the most influential in shaping your HLS agreement, why was this?

23.For sources other than NE,

•Why did you choose this source of advice?

•Had you worked with them before? Y/N If yes, details.

24. For each of the sources of advice and support received (up to 3) did they:

|                         | Source 1: NE Officer            | Source 2:                       | Source 3:                       |
|-------------------------|---------------------------------|---------------------------------|---------------------------------|
| Assist in option        | Y/N                             | Y/N                             | Y/N                             |
| selection               |                                 |                                 |                                 |
| Offer specialist advice | Y/N                             | Y/N                             | Y/N                             |
| Visit the site          | Y/N                             | Y/N                             | Y/N                             |
| Fit the farm business   | very appropriate, fairly        | very appropriate, fairly        | very appropriate, fairly        |
|                         | appropriate, inappropriate      | appropriate, inappropriate      | appropriate, inappropriate      |
| Fit the HLS agreement   | very appropriate, fairly        | very appropriate, fairly        | very appropriate, fairly        |
|                         | appropriate, inappropriate      | appropriate, inappropriate      | appropriate, inappropriate      |
| Quality of advice &     | high quality, medium            | high quality, medium            | high quality, medium            |
| support                 | quality, low quality            | quality, low quality            | quality, low quality            |
|                         |                                 |                                 |                                 |
| Quantity of advice &    | too much, just right, too       | too much, just right, too       | too much, just right, too       |
| support                 | little                          | little                          | little                          |
|                         |                                 |                                 |                                 |
| Meet your needs?        | Totally, partial, a little, not | Totally, partial, a little, not | Totally, partial, a little, not |
|                         | at all.                         | at all.                         | at all.                         |

25. What would have happened in the absence of each source of advice/support?

| Would you have        |                   |                   |                   |
|-----------------------|-------------------|-------------------|-------------------|
| sought similar        | Yes/no/maybe      | yes/no/maybe      | yes/no/maybe      |
| advice/support?       |                   |                   |                   |
| Would you have chosen |                   |                   |                   |
| different (less       | Yes/no/some of it | yes/no/some of it | yes/no/some of it |
| demanding) options?   |                   |                   |                   |
| Would you have        |                   |                   |                   |
| proceeded with the    | Yes/no/possibly   | yes/no/possibly   | yes/no/possibly   |
| agreement?            |                   |                   |                   |

26. How would you describe your relationship with each source of advice (1-3)?

| Communication | excellent, good, reasonable, | excellent, good, reasonable, | excellent, good, reasonable, |
|---------------|------------------------------|------------------------------|------------------------------|
|               | poor                         | poor                         | poor                         |
| Availability: | excellent, good, reasonable, | excellent, good, reasonable, | excellent, good, reasonable, |
|               | poor                         | poor                         | poor                         |

27. Overall what was the influence of the advice/support you received on:

a.Influence the preparation of the agreement (very significant, fairly signif, not signif) b.The overall package of options in your HLS agreement (VS / FS / NS)

c.Not selecting a particular option (VS / FS / NS)  $\,$ 

d.The overall level of work required to implement the agreement over the next 10 years (VS / FS / NS)

Time ...

#### Section 4 Advice and support on specific options (20 mins)

This next section looks at the advice and support received in relation to 2-4 core options/combination of options contained within your HLS agreement. It considers the features, outcomes and management requirements.

| Q                              | Option/Option Comb 1: | Option/Option Comb 2: | Option/Option Comb 3: | Option/Option Comb 4: |
|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Why did you choose this        |                       |                       |                       |                       |
| option/C of options?           |                       |                       |                       |                       |
| Where is this? What has been   |                       |                       |                       |                       |
| done so far? (mark on map)     |                       |                       |                       |                       |
| How would this land have       |                       |                       |                       |                       |
| been managed in absence of     |                       |                       |                       |                       |
| this HLS option?               |                       |                       |                       |                       |
| Any benefits to the (farm)     | Y/N                   | Y/N                   | Y/N                   | Y/N                   |
| business from this option (s)? |                       |                       |                       |                       |
| Any benefits to the AH from    | Y/N                   | Y/N                   | Y/N                   | Y/N                   |
| this option(s)?                |                       |                       |                       |                       |
| Any benefits to the wider      | Y/N                   | Y/N                   | Y/N                   | Y/N                   |
| community?                     |                       |                       |                       |                       |

28.Features and impact – This set of questions are set around the features that each option/combination of options is associated with. For each:

29. Management prescriptions – These questions focus on the management work required. For each option/ combination of options, please tell me:

|                                | Option/Option Comb 1    | Option/Option Comb 2    | Option/Option Comb 3    | Option/Option Comb 4    |
|--------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| What are the main              |                         |                         |                         |                         |
| management tasks?              |                         |                         |                         |                         |
| Do you have the capacity to do | Y/N Myself, own labour, |
| the work within the farm       | contractor, other       | contractor, other       | contractor, other       | contractor, other       |

| business? Who will do it?   |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| How well does this option(s)<br>fit with your current (farm)<br>management? | 1-5, 1=very good fit  |
| How practical did you find the  | 1-5, 1=very practical | 1-5, 1=very practical | 1-5, 1=very practical | 1-5, 1=very practical |
| advice and support for this option(s)?                                      |                       |                       |                       |                       |
| Do you agree that this is the   | 1-5, 1=strongly agree | 1-5, 1=strongly agree | 1-5, 1=strongly agree | 1-5, 1=strongly agree |
| best management for the   |                       |                       |                       |                       |
| intended outcome?   |                       |                       |                       |                       |
| Do you anticipate that the  |                       |                       |                       |                       |
| associated capital items will be  |                       |                       |                       |                       |
| in place at the right time? If  |                       |                       |                       |                       |
| no, what are the issues?  |                       |                       |                       |                       |
| What are the main costs   |                       |                       |                       |                       |
| associated with the   |                       |                       |                       |                       |
| management under this   |                       |                       |                       |                       |
| option.   |                       |                       |                       |                       |
| When will the work take   |                       |                       |                       |                       |
| place? (Month and year)   |                       |                       |                       |                       |

#### 30. Agreement outcomes – Finally, what is each option/combination of options trying to achieve. (Use map to assist you):

|                                  | Option/Option Comb 1 | Option/Option Comb 2 | Option/Option Comb 3 | Option/Option Comb 4 |
|----------------------------------|----------------------|----------------------|----------------------|----------------------|
| What is it anticipated that this |                      |                      |                      |                      |
| option(s) will achieve?          |                      |                      |                      |                      |
|                                  |                      |                      |                      |                      |
| How effective do you think it    |                      |                      |                      |                      |
| will be? (1-5, 1=very effective) |                      |                      |                      |                      |

| How important are the           | Very important /              | Very important /              | Very important /              | Very important /              |
|---------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| intended outcomes to you?       | important/ unimportant        | important/ unimportant        | important/ unimportant        | important/ unimportant        |
| Has this option(s) made you     | Y/N                           | Y/N                           | Y/N                           | Y/N                           |
| more aware of this feature?     |                               |                               |                               |                               |
| Has it made you more aware      | Y/N                           | Y/N                           | Y/N                           | Y/N                           |
| of the management               |                               |                               |                               |                               |
| requirements for this feature?  |                               |                               |                               |                               |
| Do you know the indicators of   | Y/N                           | Y/N                           | Y/N                           | Y/N                           |
| success for this option(s)?     |                               |                               |                               |                               |
| Do you think that these will be |                               |                               |                               |                               |
| easy to achieve?                |                               |                               |                               |                               |
| How clear were these            | 1-5, 1=very clear             | 1-5, 1=very clear             | 1-5, 1=very clear             | 1-5, 1=very clear             |
| outcomes in the advice and      |                               |                               |                               |                               |
| support you received?           |                               |                               |                               |                               |
| Was the advice you received     | Y/N                           | Y/N                           | Y/N                           | Y/N                           |
| consistent regarding outcomes   |                               |                               |                               |                               |
| of this option(s)? If no, note  |                               |                               |                               |                               |
| differences/ actions taken      |                               |                               |                               |                               |
| After interview: note level of  | Very fluent on detail, fairly |
| knowledge the interviewee       | fluent, not very clear on     |
| had on options(s)               | details, very unclear         | details, very unclear         | details, very unclear         | details, very unclear         |

31.We have discussed the options/combination of options that we considered central to your agreement. Are there other aspects of the agreement that are particularly important to you:

|          | AH's selections | Reasons and comments |
|----------|-----------------|----------------------|
| Option 1 |                 |                      |
| Option 2 |                 |                      |

| Option 3 |  |
|----------|--|
| Option 4 |  |

Appendix 4 – Communication with agreement holders and interview questionnaire

Overall

- 32.Are you receiving additional advice as part of the HLS agreement now that the agreement has started? Yes / No If no, would this be useful in helping you meet the outcomes?
- 33.Is the advice and support you have received going to help to deliver the environmental
- outcomes that you support?Y/N Comments:
- 34.Do you see the advice and support you received as a really useful tool to help deliver the HLS agreement?Y/N Comments:
- 35. Have there been any wider benefits as a result of the advice and support you have received through the HLS agreement?Y/N Comments:
- 36. What will have to happen for you to feel that your HLS agreement has been successful?
- 37. How confident are you that it will be?
  - a.Very confident / fairly confident / Not at all confident
- That is the end of the interview but before closing the interview do you have any other comment to make regarding your HLS agreement that you think is relevant?
- Thank you very much for taking part in this survey, your contribution has been very helpful and I am grateful for your assistance. The field worker will contact you in Spring 2014. Can I just check we have the right contact details .....
- Record time interview closed ...