

# The environmental effectiveness of the Higher Level Stewardship scheme: resurveying HLS agreements to assess change between 2009 and 2016.

Agri-environment monitoring theme: Higher Level Stewardship outcomes

## What are the issues?

Higher Level Stewardship (HLS) was introduced in 2006, to provide support to farmers in managing land with high potential conservation value for environmental benefits. HLS forms part of the Rural Development Programme for England (RDPE) and is a key mechanism for delivering the Government's Biodiversity 2020 outcomes. Both HLS and the newer Countryside Stewardship (CS) scheme will play a role in delivering the Government's 25 year Environment Plan. Many objectives and management approaches within the higher tier of the CS scheme are similar to those of HLS, so the findings of this project will also be relevant to some elements of CS. This HLS resurvey forms part of an agri-environment scheme (AES) monitoring and evaluation programme, to provide evidence of the effectiveness of AES as required by the European Commission.

## What are the aims of the project?

Centre for Ecology and Hydrology (CEH) previously conducted a baseline survey of farmland managed under HLS (HLS agreements), from 2009-2011. The current project, delivered by CEH and the Centre for Rural Policy Research, built on the baseline through a resurvey (2015-2016) with two broad aims: (1) to measure progress toward environmental outcomes between the two surveys and (2) to assess how agreement holder characteristics affect the achievement of these outcomes.

These broad aims led to five objectives:

- 1) Measure change between the baseline and resurvey, in relation to type, extent and condition of habitats, and plant community characteristics (e.g. species richness).
- 2) Assess whether specific outcomes (defined at the start of HLS agreements as indicators of success, IoS) have been met towards the end of HLS agreements.
- 3) Measure and describe the characteristics of HLS agreement holders, in relation to their previous experience of AES, motivation, experience of participation in HLS, and future plans in terms of AES involvement and independent environmental practice.
- 4) Test whether the characteristics and outcomes above differ between habitats and features, and if the outcomes depend on agreement holder characteristics and geographical and physical variables (such as size of agreement, altitude or type of agricultural land).
- 5) Compare changes on HLS agreements between the baseline and resurvey with changes across the wider countryside over a similar time period.



Figure 1: Upland HLS agreement. © Owen Mountford, CEH

## Which policy areas will the research inform?

The results of the survey will help evaluate the effectiveness of ES in delivering environmental benefits, in line with the European Commission Common Monitoring and Evaluation Framework (CMEF). AES objectives and design are also currently being re-evaluated in the context of the UK's exit from the European Union, so the results will also inform this process to show which aspects of HLS delivered benefits for biodiversity, and which might be improved. The project can also inform the likely efficacy of parts of the higher tier of the new Countryside Stewardship (CS) AES, which incentivise similar management to HLS, with broadly similar goals.



Department  
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## What are the key results from the project and how will they be used?

173 HLS agreements across England were resurveyed in 2015 and 2016, during which data were collected on the extent and type of broad and priority habitats, the condition of habitats, the presence and percentage cover of plant species, and whether IoS were met. Agreement holders from 137 of these agreements took part in face-to-face interviews. A semi-structured questionnaire was used to collect information on the business and respondent's profiles, previous engagement with environmental practices (both AES and informally), the application process, implementing and delivery of agreements, and likely future involvement in AES.

1) The **extent of most areas of broad and priority habitats did not change** between the two surveys. The largest changes were on habitats under creation or restoration management and consistent with the goals of HLS, though small losses of some priority habitats were found.

2) **Changes in habitat condition** were driven by the habitat type (feature) and the starting condition. For example, change in condition was less likely for species rich semi-natural grasslands (including priority habitats) than for grasslands under management that targets other taxa.

3) **Plant communities changed little** between surveys, especially in the uplands. In the lowlands, grasslands changed under creation and restoration options, and communities under lowland heathland options became more characteristic of heathland flora.

4) **The characteristics of plant communities showed few changes between the two surveys.** Where change in characteristics such as species richness did occur these were generally positive changes, but were often small in scale or limited to particular areas or habitats. **Larger scale analyses across all agreements and options showed an increase in species richness** in five of nine broad habitats assessed, and a **reduction in plant species typical of fertile conditions** in six habitats.

5) Between **61 and 100% of IoS were met** at resurvey for the majority (57%) of parcels, varying with the HLS option and habitat.

6) 65% of agreement holders had previously implemented an AES scheme, but often this was 'entry level', so the **transition to HLS was a step up in agri-environmental management.**

7) **Relationships with NE delivery staff were key** to agreement holders' experience of HLS. Agreement holders valued having control of agreement design, NE staff flexibility and long term relationships with NE staff.

8) **Few (22.6%) agreement holders reported referring to IoS regularly.**

9) **Agreement holder characteristics related to botanical outcomes for several HLS options.** For grassland, woodland and moorland options, an agreement holder rating of management as easy or very easy was linked to improved botanical outcomes between the two surveys. At the larger agreement-scale, agreement holder characteristics did not relate to outcomes for habitat condition, IoS or botanical characteristics.

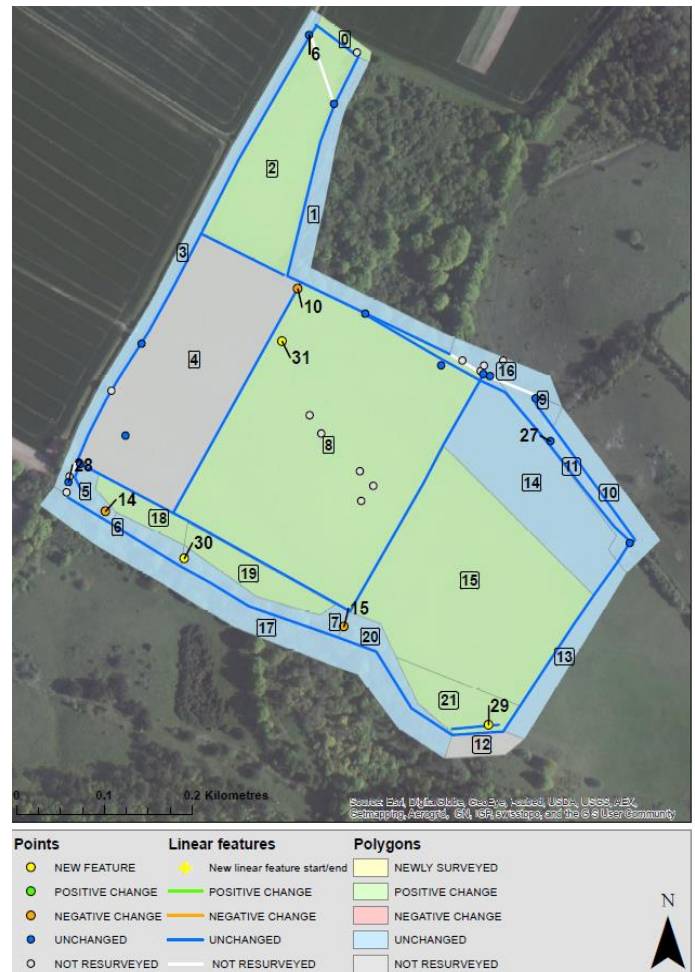


Figure 2: Mapped farmland under HLS agreement, surveyed as part of 2015 HLS resurvey.

## Where can I find further information about this and related research?

J.T. Staley, M. Lobley et al. (2018). The environmental effectiveness of the Higher Level Stewardship scheme; Resurveying the baseline agreement monitoring sample to quantify change between 2009 and 2016. Full technical final report. Natural England project ECM 6937

Mountford, J.O. et al. (2013). Monitoring the outcomes of Higher Level Stewardship: Results of a 3-year agreement monitoring programme. Natural England Commissioned Reports NECR114 publications.naturalengland.org.uk/file/5129331533676544

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