

## ISSUE STUDY 3

# THE ROLE OF AGRI-ENVIRONMENT SCHEMES IN FLOOD RISK MANAGEMENT

## *FARMING FLOODPLAINS for the FUTURE*

Agri-environment schemes are Government grants, currently administered (in England) through Natural England, that pay farmers and landowners to deliver wide-ranging environmental benefits on their holdings. In the context of the Farming Floodplains for the Future project, the schemes encountered included the Countryside Stewardship Scheme (CSS), and its replacements Entry Level Stewardship (ELS) and Higher Level Stewardship (HLS). One of the key objectives of the project was to investigate the role that these grant schemes may play in the delivery of land use solutions to flood risk management.

With the exception of the Izaak Walton Golf Course, all of the case studies occurred on holdings with existing agri-environment agreements (see Table A overleaf). In part this reflects that one mechanism used by the project to contact landowners was a mailing, via Natural England, to all existing agri-environment agreement holders in the project area. However it does suggest that, given their existing involvement in environmental work, these farmers present an audience receptive to the approach promoted by the project. Although the holdings are covered by agreements, it is noted that only half had options directly applied to the fields / features of interest to the project. Despite this, the presence of agreements provided a major opportunity for the project, and through negotiation with Natural England, agri-environment schemes provided two elements of funding :-

- **Contribution to Capital Costs** : The implementation of all the case study schemes on agricultural holdings was part-funded by capital payments made through the relevant agri-environment scheme, with the percentage contribution ranging from 26% to 71%. A range of capital payment options were utilised including pond / scrape creation / ditch creation and restoration, culverts, tree planting etc.
- **New / Additional Annual Payments** : The delivery of schemes has, in a small number of cases, generated new annual payments for the farmers in question, either through new land coming into environmental management (Church House Farm secured a complete new HLS agreement, and new land was added to the agreement at Little Horsley Farm), or the scheme has resulted in sufficient change in land management for supplementary payments to be available (notably raised water level supplements on agreements at Seighford Moor and Bellfields Farm) (see relevant case studies).



Agri-environment funded scrape creation at Church House Farm (see Case Study 1)

Table A: Agri-Environment Contribution to Case Study Sites

Site	Existing Agreement <sup>1</sup>	Existing annual options on land subject to FFF scheme <sup>2</sup>	Capital Items			Additional Annual Payments	
			Option(s) Used <sup>3</sup>	Total Value	% of Capital Cost	New Options <sup>4</sup>	Annual Value
Church House Farm	ELS	--	C, S1, SCR/SCP	£ 7755	71%	HK10, HK13	£ 1674 (+£ 679 elsewhere on farm)
Little Horsley Farm	CSS	--	SCR/SCP, WDC, C, CLH, FSB	£ 3000	38%	P1, GW	£ 189
Old Hattons Farm	CSS	--	PR/PRP, TS1	£ 1290	30%	--	--
Fieldhouse Farm (The Dingle)	CSS	P1, GW	WDC, C	£ 1593	37%	--	--
Izaak Walton Golf Course	--	--	--	--	--	--	--
Bellfields Farm	HLS	HK16, HK5	SCR/SCP, C, S1	£ 1455	26%	HK19	£ 336
Deepmore Farm	CSS	H3	OES (cost of seed)	£ 3749	21% (0% earthworks, 100% seeding)	--	--
Fieldhouse Farm (Woodland)	CSS	--	TSP, TT	£ 3207	57%	--	--
IDB – Seighford Moor 1	CSS	P1	S2	£ 628	} 66%	GW	£ 1140
Seighford Moor 2	CSS	P1, GW	S2, WDC	£ 890		}	--
Radford Meadows	CSS	P1	C	£ 459	28%		--

<sup>1</sup> CSS – Countryside Stewardship Scheme ; ELS – Entry Level Stewardship ; HLS – Higher Level Stewardship

<sup>2</sup> GW – Raised water level supplement ; H3 – Hay meadow ; HK5 – Mixed stocking ; HK16 – Restoration of grassland for target features ; P1 – Grazed pasture

<sup>3</sup> C – Culvert ; CLH – Livestock handling facilities ; FSB – Sheep fencing ; OES – Special project ; PR/PRP – Pond restoration ; S1 – Soil bund ; S2 – Timber sluice ; SCR/SCP – Scrape creation ; TS1 – Tree surgery ; TSP – Tree / shrub plants ; TT – Tree tube and stake ; WDC – Ditch creation

<sup>4</sup> GW – Raised water level supplement ; HK10 Maintenance of wet grassland for wintering waders and wildfowl ; HK13 – Creation of wet grassland for breeding waders ; HK19 - Raised water level supplement ; P1 – Grazed pasture

## Shortfalls

Clearly agri-environment schemes have proved a useful aid to the delivery of Farming Floodplains for the Future, but there are shortfalls. Most importantly, CSS was never designed to deliver flood management benefits, and these are only a secondary objective of HLS. Consequently, the schemes promoted by the project do not necessarily represent a good ‘fit’, with funding generally only being forthcoming where there is also strong delivery against biodiversity targets (arguably the key primary objective of these grant schemes). Thus the scheme at Church House Farm which involved the creation/restoration of floodplain grazing marsh on former arable land, was well funded through a new HLS agreement, while the more flood management orientated schemes at Deepmore Farm and Bellfields Farm secured much smaller contributions towards capital costs.

Secondly, contributions to capital costs utilised standard options within the agri-environment schemes, and while some of these effectively contributed to the delivery of flood management elements of Farming Floodplains for the Future schemes (e.g. the ‘culvert’ payment towards outflow pipes), other key aspects (e.g. embankments defining flood storage areas) were arguably not adequately covered. The implementation of land use change for flood management purposes is generally of limited benefit to farmers, but clearly provides a wider public benefit. It is accepted that other drivers may encourage landowner participation in schemes (e.g. more effective agricultural management of land at Church House Farm; or meeting corporate environmental objectives for Severn Trent Water at Old Hattons and Deepmore Farms – see relevant case studies). However ultimately an incentive is required to secure delivery, potentially including both capital outlay and some form of compensation for profits forgone.

In terms of the former, the Farming Floodplains for the Future project had a capital works budget which was used to cover any shortfall between Natural England grant monies plus any contribution from landowners, and the actual capital cost of schemes. Although it must be acknowledged that some landowners contributed, for example through re-seeding on completion of works, the majority have made it clear that schemes would not have progressed if they had had to financially contribute towards the capital outlay.

The project however was not in a position to offer longer term ‘compensation’, but this has not proved to be a major barrier to delivery. Where agri-environment option payments are already being received for biodiversity management under existing agreements, and implementation of a flood management scheme is not deemed to require major change in that management, no further incentive has proved necessary to secure co-operation. In other cases, where implementation results in alteration of management or the bringing of additional biodiversity benefits, new options / supplements available under agri-environment schemes have proved sufficient to secure farmer involvement with the project. It should be noted that on farms visited where agri-environment schemes may not be applicable, landowners have raised the question ‘what’s in it for me?’. While this further confirms the need to incentivise delivery of land use change for flood management benefit, the implication from the case studies is that the payments required need not be prohibitively expensive.

## Future Options

Looking forward, the experiences of Farming Floodplains for the Future indicate that agri-environment grants could have a key part to play in the delivery of flood risk management, particularly where schemes fulfil multiple objectives. Whilst the current HLS scheme has a number of shortfalls in its present form, these could be overcome through alterations in the scheme's administration :-

- New capital payments could be made available, suitable for the installation of 'infrastructure' (e.g. embankments, spillways, controlled outflow pipes) appropriate for flood management schemes.
- Application of appropriate annual payment options could be re-defined where necessary (e.g. the existing inundation supplement (option code HQ13) could become a stand-alone option), or new option(s) added.
- While the creation of multi-functional wetlands should always be considered, flood management could be upgraded to a primary objective of HLS to allow enhanced delivery.
- Blanket and indiscriminate delivery of flood management schemes will be ineffective, but with Natural England having recently moved to a more targeted delivery of HLS, there is scope to strictly and carefully target relevant options to priority catchments.

It is accepted that such changes could have implications for HLS funding. Although Natural England currently has a substantial HLS budget, without additional funds, widespread rollout of flood management delivery through agri-environment schemes may risk compromising delivery against other primary objectives (especially biodiversity).

Further, with the Farming Floodplains for the Future approach favouring low tech, minimal maintenance schemes, with the majority of these designed to flood relatively infrequently, there are also likely to be questions regarding value for money – can making annual payments to farmers for such schemes be justified?

The other major shortfall in the use of HLS is the fact that agreements only last 10 years, and throughout the Farming Floodplains for the Future project, questions have been raised as to how the benefits of the project can be secured for the long term. This is explored in more detail in Issue Study 4 – Securing the Benefits of Land Use Change Long Term.

While alternatives to the existing agri-environment schemes and potential sources of funding are considered in Issue Study 4, and despite the above concerns, it is concluded that HLS provides the most effective, currently available mechanism for the delivery of land use change for flood management, a role that could be enhanced through alterations in the scheme's administration and budgeting. Even if an alternative incentive mechanism is ultimately sought, HLS provides a useful template to build upon.