

## Site Visit Assessment Form – Fawley Court Herefordshire



<b>Site Name</b> Fawley Court Bottom River Meadow 1 Bottom River Meadow 2 Top River Meadow	<b>Grid Ref</b> SO 58410 28716	<b>County</b> Herefordshire	
<b>River</b> Wye	<b>Ownership</b> Peter Clay and J.P.F Clay Farms	<b>Designation</b> None	<b>Size (ha)</b> BRM - 1.55 BRM2 – 1.96 TRM - 3.25
<b>Date</b> 22/05/18	<b>Meeting with</b> Mark Wood, Caroline Hanks. Hilary Wallace, Simon Barker	<b>Managed by</b> Fawley Court	
<b>Management and History</b>			
<b>Agri environment agreement</b>			

Went into HLS in 2006 (via FWAG). Primarily for archaeology and river meadows (breeding waders), but didn't really work, as site wouldn't hold water – too freely draining. So then thought about sowing wildflowers instead. Have started to have a go, and have put down some of the areas that flood, to meadow.

HLS finished Feb 2016. CS has started, 1<sup>st</sup> Jan 2017, so there was a period when no agri environment scheme was in place, which meant that part of the site previously under breeding wader management, was put back to arable (is currently peas).

#### **Current management**

Annual hay cut, aftermath grazing

#### **Restoration**

Technique used/Dates

##### **Bottom River Meadow 1 and 2**

All areas of Bottom River Meadow were sub-soiled and ploughed in 2006. Power harrow, with drill to sow seed, and rolled afterwards, as part of the first HLS agreement. Seed mix was just grasses and included:

Cocksfoot, Smooth stalked meadow grass, sheeps fescue, red fescue, tall fescue, crested dogs-tail, meadow foxtail, meadow fescue, Timothy, common bent and perennial ryegrass.

From 2006-2016, was cut for hay every year after 15<sup>th</sup> July. Hay was considered good cow feed for spring calving (belly fill). Sometimes was a bit dirty (from floods?). Soil sample in 2016 showed P index 2-3. No fertilizer has been applied since 2006.

**In 2016**, soil was sampled, then cut grass hard to open it up.

**In 2017** Hay was cut as usual and at the end of August 2017 grass was harrowed twice, but felt this wasn't enough bare ground, so also used a Mzuri 9m stubble rake (1 disc and 7 tyne harrows). Went twice over the whole field to create 60% bare ground. Seed was spun on with a quad bike and slug pelleter at 4 different angles across the field.

A bespoke seed mix (agreed with Natural England) was put together by Green Farm Seeds based on PlantWild local provenance wet grassland mix but which was not available in large enough quantities for this project.

The mixture was sown at a rate of 15 kg/ ha and included ox-eye daisy, yellow rattle, common knapweed, red clover, meadow buttercup, great burnet, meadowsweet, lady's bedstraw, meadow vetchling, autumn hawkbit, birdsfoot trefoil, agrimony, ribwort plantain and white clover.

Small seedlings of ox-eye daisy, knapweed, buttercup, trefoil, hawkbit, plantain and clover were recorded in a walk over survey in September 2017 (Hanks and Wood).

The area adjacent (east) to Bottom River Meadow 2 that is currently arable has been intensive wheat, sugar beet, and potatoes, and is now peas. This area does not flood so much, so can grow arable without losing too much soil. Would be expensive to return to floodplain meadow.

**Top River Meadow**

Been permanent pasture for a long time (40 years +). Too wet for arable so works well as a pasture. No fertilizer applied for 12 years. P index 3-4. This field floods, but is free-draining, floods recede in a day or two. Want to enhance this area through slot seeding, but want to keep as pasture. Field is very bumpy and would be difficult to make hay from.

**Hydrology**

Flooding regime  
Water management  
Soil-water levels (indicated by auger hole/any other data)

Bottom River Meadow and Top River Meadow both flood in some areas. Current arable area of Bottom River Meadow (adjacent to BRM 2) does not flood much. Flood path tends to be across Bottom River Meadow 2 x restoration area and Top River Meadow area. Floods recede very quickly. Soil is very free draining.

**Historical information**

Not sure about historical management. Was intensive arable in more recent history, before HLS scheme.

**Current site interest**

Attach excel spreadsheet for botanical data

The species composition indicated freely draining soil rarely subject to waterlogging.

- The area that had been seeded with forbs as well as grasses (Quadrats 1-5) showed a close affinity with the MG4 community, though the goodness of fit was poor it was, in general, closer to MG4 than to the MG7 communities from which it had probably been derived.
- The flanking area that had received grass but not forbs remains closer to the MG7 community, and overall to either the D or E sub type (quadrats 6-10)
- The area on the base of the slope overall is a good fit to the MG7D unit though individually some of the quadrats appear close to the MG6b subcommunity (quadrats 11-15).

It is not uncommon in surveys of species poor vegetation on damp but not waterlogged soils for MG9 and MG10 to score highly, even when *Deschampsia cespitosa* and *Juncus effusus* are more or less absent from the stands.



For the grass and forb seeded area development towards MG4 is indicated whilst when just grasses were added the dry nature of the vegetation is reflected in equal scores for the tussocky MG1 despite low frequency and cover of *Arrhenatherum* but this is closely followed by MG7E.

For the grazed area at the bottom of the slope the damp improved grassland MG7D seems the most likely vegetation type; restoration here is more likely to go towards a species-rich MG6 than an MG4 in the short term.

The targetting of specific MG4 indicator species could therefore be considered as the next stage of management here

<b>Phosphorus levels</b>	Bottom River Meadow - P index 2-3 Top River Meadow – P index 3-4
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**Soil profiles**

	<p><b>Soil profile 1 – Bottom River Meadow (Q1)</b></p> <p><i>A horizon</i> 0 – 10 cm – silty loam. Very dry. 10 cm -30 cm – same. Very dry. Band at 30 cm, below which soil becomes damper. Top 30 cm look like a slightly compacted layer</p> <p>30 cm – 120 cm – silty sandy loam. Very fine sand throughout profile. No gley.</p> <p>Mark would sub soil the top 30 cm in other grasslands. He feels it is compacted from vehicle movements in the area.</p>
	<p><b>Soil profile 2 – Bottom River Meadow 2</b></p> <p><i>A horizon</i> 0 – 30 cm – silty sandy loam</p> <p><i>B horizon</i> 30 cm – 120 cm – wetter uniform very fine sand, silty loam. Damper towards the bottom. Evidence of plant roots to base. Well structured.</p>

**Site manager aspirations/objectives**

Species rich meadow, hay for use on farm.

**Management recommendations**

Bottom River Meadow – recommend cutting now (May 2018), but not too low, to give small seedlings germinated from 2017 sowing a chance. Then cut again if needed in September, to manage nutrients. As great burnet rarely establishes well from seed consider raising 50 -100 plugs from seed and transplant into the meadow.

Bottom River Meadow 2 – cut early and hard to remove thatch. Carry on mowing as per BRM.

<b>Fawley Court</b>			
	Bottom River Meadow Seeded with grasses and herbs (Q 1-5)	Bottom River Meadow 2 Seeded with grass only (Q 6-10)	Top River Meadow Unseeded area (Q 11-15)
<b>Ellenberg F (moisture tolerance)</b>	5.772	5.902	6.02
<b>Ellenberg N (fertility)</b>	5.722	5.772	5.724
<b>Ellenberg R (Reaction)</b>	5.818	6.4	5.816
<b>Species/quadrat (mean and range /1 m x 1 m)</b>	15.8	12.2	9.2
<b>NVC (top 2 MAVIS subcommunities)</b>	MG9a MG4	MG9a MG1a	MG10a MG7D