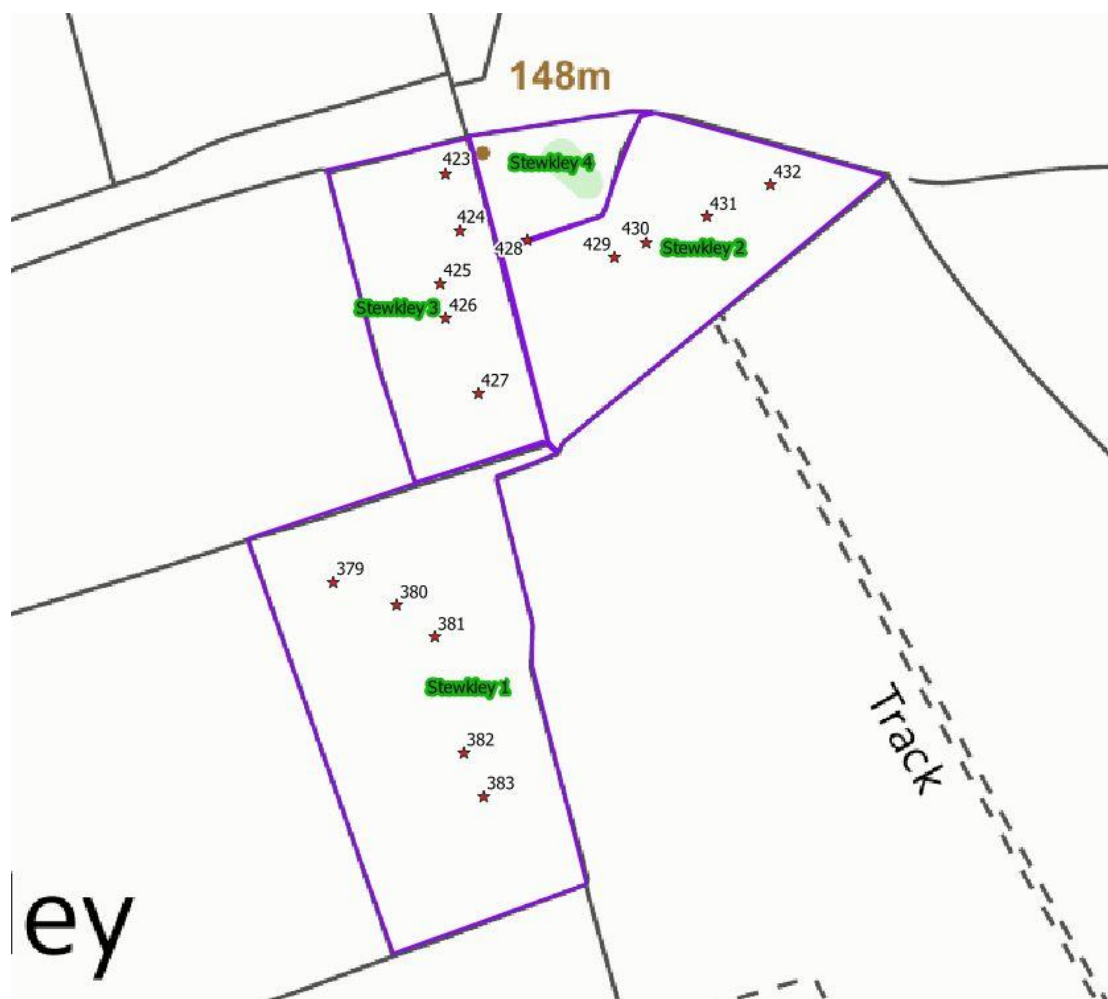


Site Visit Assessment Form Stewkley, Buckinghamshire 2021



The map shows quadrats recorded in 2021 (red stars). The restoration fields have a purple outline.

The form records survey results collected in 2021, and includes feedback following discussions with the landowner.

Site Name Stewkley Wildlife Reserve	Grid Ref SP856262	County Buckinghamshire	
River Ouzel	Ownership Stewkley Parish Council (SPC)	Designation County Wildlife Site	Size (ha) F1 - 1.21 F2 - 0.69 F3 - 0.55 F4 - 0.18
Botanical survey dates 30 th May and again July 2018 18 th June 2021	Meeting with Stewkley Parish Council	Managed by Stewkley Parish Council	
18th June 2021			
Management and History			
Agri environment agreement			
No			

Current management	
Annual hay cut	
<p>The parish council have been renting the fields under a grazing licence since 2004, since when it has been managed with the traditional hay meadow management regime; the sward allowed to grow until the grass is cut at the end of July/August and the regrowth being grazed until late autumn by livestock.</p> <p>There has also been tree planting along the hedgerows and the erection of bird and bat boxes.</p> <p>Paths have been mowed around and through the meadows to allow public access.</p>	
Restoration	
Technique used/Dates	
<p>Mix of plug plants and seed spread. Some seed commercially bought, some collected from same fields. Very careful and thoughtful tending of plants, sowing of seeds and managing of meadow.</p> <p>Since 2005, some efforts have already taken place to increase the range and quality of wild flowers in the fields</p> <p>Yellow rattle, was introduced and careful planting of plugs on an annual basis.</p>	
Hydrology	The site is ridge and furrow in parts with wet furrows and dry ridges. Must be ground water influence, as at top end of river catchment with no flooding.
Flooding regime Water management Soil-water levels (indicated by auger hole/any other data)	
Historical information	
<p>Two of the meadows were historically allotments known locally as Church Furlong (Fields 1 and 2), and have been bought from the Oxford Diocese. The other, known as 'The Jackdaw' field was a hay meadow belonging to Stewkley's St. Michael's church and held in trust for the P.C.C. by the Diocese.</p> <p>Old Church Furlong is Field 1 New Church Furlong is Field 2 Jackdaw is Field 3 Field 4 is part of New Church Furlong.</p>	
Current site interest	Attach excel spreadsheet for botanical data
<p>Old Church Furlong (Stewkley Field 1) is a slightly drier and less fertile field than the other two fields. According to Ellenberg indicator values, soil moisture (F) and soil nutrients (N) haven't changed over last three years (Table 1). The site is in a stable</p>	

condition, with a relatively low nutrient level (N=4.44), which is ideal for vegetation restoration. The field supports MG4b (Typical) subcommunity of Burnet floodplain (*Alopecurus pratensis-Sanguisorba officinalis*) grassland. The dryer subcommunity (MG4a) also has high similarity score with the current vegetation on the meadow. Species richness is as high as 28 species per 1 m². However, the functional diversity of the vegetation presented as ratio between competitive, stress-tolerant and ruderal species, could be better balanced, as the presence of ruderal species is still quite high; this situation hasn't changed since the survey in 2018.

New Church Furlough (Stewkley2) is marginally less species rich and slightly more fertile than field 1 (Table 1). It also supports the typical MG4 plant community. The meadow has been developing very well, although the ratio of stress-tolerant to ruderal species is still low because of the high amount of ruderal species in the meadow (Table 2).

Very similar meadow processes were observed in Jackdaw - Stewkley3. The field has the most wet and fertile soil amongst three surveyed fields (Table 1). However, the conditions are still very much suitable for meadow restoration and new species establishment.

The high abundance of ruderal species is most likely to be linked to the high abundance of yellow rattle, as the case in all three fields. At the moment its presence works well in support of establishment and spread of the herbs across the meadows. 10-20% bare soil in field 3 provides sufficient space for seedlings of the less competitive species.

Phosphorus levels	Not known
Soil profiles	
Not collected	
Site manager aspirations/objectives	
To manage the site as a traditional hay meadow for the benefit of villagers. It is intended the fields will be an educational resource for local schools and surveys of local bird, butterfly, moth and other insect populations have been and will be undertaken.	
Management recommendations	
Continue as you are the site is an excellent example of restoration success.	

Table 1.

Field 1 Old Church Furlong	Score of success/progress				
Measure	1 Failure	2	3	4	5 Success
Average scores from five botanical quadrats per field. Calculated in MAVIS					
Species richness	<8	8 to 12	13-15	16-20	>20
NVC similarity score	<50%	50-55%	55-60%	>60%	>60%
C:S ratio	1.65	1.39	1.23	1.1	1.09
S:R ratio	0.67	0.79	0.81	0.89	0.93

Table 2.

Field 2 New Church Furlong	Score of success/progress				
Measure	1 Failure	2	3	4	5 Success
Average scores from five botanical quadrats per field. Calculated in MAVIS					
Species richness	<8	8 to 12	13-15	16-20	>20
NVC similarity score	<50%	50-55%	55-60%	>60%	>60%
C:S ratio	1.65	1.39	1.23	1.1	1.09
S:R ratio	0.67	0.79	0.81	0.89	0.93

Table 3.

Field 3 Jackdaw	Score of success/progress				
Measure	1 Failure	2	3	4	5 Success
Average scores from five botanical quadrats per field. Calculated in MAVIS					
Species richness	<8	8 to 12	13-15	16-20	>20
NVC similarity score	<50%	50-55%	55-60%	>60%	>60%
C:S ratio	1.65	1.39	1.23	1.1	1.09
S:R ratio	0.67	0.79	0.81	0.89	0.93

Table 4

	2018	2021	2021	2021
	Stewkley 1	Stewkley 1	Stewkley 2	Stewkley 3
Ellenberg F (Moisture tolerance)	5.5	5	5.1	5.3
Ellenberg N (Fertility)	4.6	4.44	4.78	5.06
Ellenberg R (Reaction)	5.8	6.16	6.24	6.16
Species/quadrat (mean and range /1 m x 1 m)	19.6 (15-23)	22 (16-25)	20.8 (18-24)	22.6 (19-28)
NVC (top 2 MAVIS subcommunities)	MG4b	MG4b	MG4b	MG4b