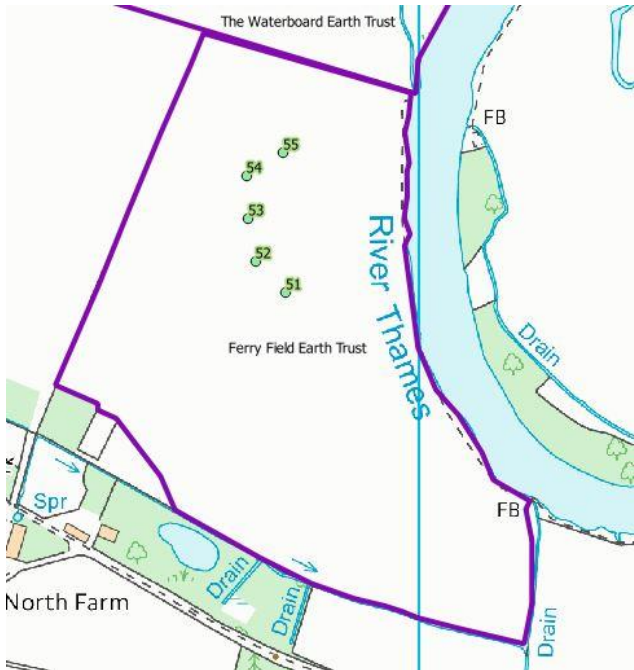


Site Visit Assessment Form – The Earth Trust - Ferry Field, Oxfordshire



The form records survey results collected from various site visits, and includes feedback following interviews with site managers. The map above shows the quadrat locations and numbers collected in 2018 and repeated in 2021.

Site Name Earth Trust – Ferry Field	Grid Ref SU 589 925	County Oxfordshire	
River Thames	Ownership The Earth Trust	Designation None	Size (ha) 10.43
Dates for surveys 19 th May 2017 2 nd June 2021	Meeting with No-one	Managed by The Earth Trust	
Interview 13 th May 2021	Interview with Chris Parker		
Management and History			
Previously pasture. Forms part of the River of Life project which has involved re-modelling of river and floodplain in some areas, combined with sowing wildflower areas.			
Agri environment agreement AG00402391 (HK7?)			

Two Pond Field did not go into HK7 because at that time a P index of less than 2 was needed, and Two Pond Field had a higher P index. HLS started in 2021 therefore on Waterboard and Ferry Field, as HK7.

HLS finishes in November 2022 – The Earth Trust have not yet been contacted by NE about what happens next (at the time of the interview in spring 2021) but are being told that the agreement will renew on a rolling yearly basis, likely until ELMS. The Earth Trust are keen to stay in the scheme, although they might move from HK7 to HK6 if the meadows are of good enough quality for maintenance rather than restoration.

Current management

The meadows are manged on rotation, with 2 years grazed and third year hay cut. Grazed with cattle (1 LU/ha). Each year a hay cut is taken from one of the three fields. This year (2021) the hay cut will be in Ferry Field. The rotation is set as they need some forage for overwinter for grazier, and need summer grazing land. Graze in the summer on the non-cut fields with cattle.

Two Pond Field however did get 3 years in a row of a hay cut 2017-18 and 2019, then was aftermath grazed.

Commented [E1]: Chris, I didn't note why this happened?

Hay cut dates – 15th July is agreement date. The Earth Trust tend to look for 5 good days to make hay. Actual dates:

- 2017 - 24th Aug
- 2018 - 15th July
- 2019 – 20th July
- 2020 - 19th July

Restoration

Commercial seed was sown in 2015? on a previously species poor field. The seed was drilled originally into the existing grasslands, and The Earth Trust think it had good coverage in some places, but in other spots there are still just grasses. A high rate of yellow rattle seed was used (20% of the seed mix).

Commented [E2]: Is this right?

All fields were sub-soiled as part of the restoration activity. They were disked in two directions then power harrowed to create a seed bed, then drilled on the surface with seed and Cambridge rolled, so it looked like an arable field even though it had been permanent grassland. They were aiming to introduce wildflower, not sow finer grasses.

The three fields were restored in subsequent years, not all in the same year, in order to try and spread the risk.

Hydrology

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

The fields flood regularly, perhaps one year in 5. Land level is quite high above the river level. Flooded in 2014/15 and again in 20/21.

Current site interest See attached excel spreadsheet for botanical data.

Survey from 2017


On this very sandy and well-drained soil, MG4a, the dry sub-community of the MG4 plant community, is the most likely target community. With a relatively high cover of grasses on the field, there is still enough spaces left to allow for the presence of a number of herbs, spread across the field, including bulbous buttercup *Ranunculus bulbosus*, meadow buttercup *R. acris*, oxeye daisy, *Leucanthemum vulgare*, sorrel *Rumex acetosa*, ribwort plantain *Plantago lanceolata*, and common knapweed *Centaurea nigra*. The composition of grasses in the community is quite diverse and includes yellow oat-grass *Trisetum flavescens* and crested dog’s-tail *Cynosurus cristatus*. This combination of herbs and grasses has resulted in a species rich sward with one quadrat recording 25 species per m², which is a very high level of species richness for a recently sown restoration site.

Survey from 2021

The same five botanical quadrats were re-surveyed in Ferry Field in 2021 by Irina Tatarenko. MG4a - *Dactylus glomerata* subcommunity of MG4 *Alopecurus pratensis* – *Sanguisorba officinalis* NVC type has over 60% similarity score with current vegetation in the field. This is the dry end of the MG4 subcommunities spectrum and hasn’t changed much since the survey in 2017. Species richness remains high – 25 sp/m². These are two very positive characteristics of the vegetation in Ferry Field in 2021. However, the field also shows a very poor functional diversity in the plant community which also hasn’t changed since 2017. The low level of stress-tolerant species compared to competitors and ruderals indicates that a good meadow plant community structure is some way off. For example, *Heracleum sphondylium* (hogweed) occurs in some areas of the field in large numbers, reflecting the rotational nature of the hay cutting at this site, with cuts taking place one in three years. The fields may therefore take longer to show a more even structure and to reduce species indicative of late/missed cuts than sites where a regular annual hay cut takes place.

Phosphorus levels	Not known
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Soil profiles

	Soil profile at quadrat 53
	<p><i>A horizon</i> 0 – 10 cm – dark-brown sandy loam</p> <p><i>B horizon</i> 10 – 50 cm – light-brown sandy loam with some amount of clay. 50 – 70 cm – very sandy loam</p> <p><i>C horizon</i> 70 – 100 cm – sand, no gravel</p> <p>The soil here is very well drained, with no evidence of waterlogging.</p>

Site manager aspirations/objectives

Wildflower meadows are a long term aim for The Earth Trust here. The River of Life Project (2) is going to create ponds and backwater channels in areas that are botanically less diverse. The Trust are not sure about re-seeding these areas, might see what comes up naturally. They are wetter meadows.

Management recommendations

If more rapid development of typical meadow structure is required, more regular hay cuts are the answer.

Consider applying the same assessment approach to other Earth Trust sites to determine progress with restoration including:

- Little Mead. This site is already botanically diverse. It is a Local Wildlife Site and there is already some survey data. It was previously used for silage but is a nice meadow, so will continue with a hay cut. Suggest we visit Little Mead. No plans for intervention here.
- Clifton Mead is cut 1 year in 3.
- Thomas’s Meadow is not in the same regime, might be more suitable for grazing only as there are lots of ponds.

The Earth Trust						
	Two Pond Field		The Waterboard		Ferry Field	
	2017	2021	2017	2021 (small field)	2017	2021
Ellenberg F (moisture tolerance)	5.38	5.42	5.2	5.44	4.96	5.1
Ellenberg N (fertility)	6.18	6.2	5.24	5.78	5.2	5.2
Ellenberg R (Reaction)	6.04	6.7	6.28	7	6.4	6.62
Species/quadrat (mean and range /1 m x 1 m)	13 (12-14)	11.7 (9-16)	17 (15-19)	11.6 (10-14)	21 (16-25)	25 (21-30)
NVC (top 2 MAVIS subcommunities)	MG7D MG7	MG9 MG1	MG7D MG4v2	MG4c MG9	MG4a MG4v2	MG4a MG4b

	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