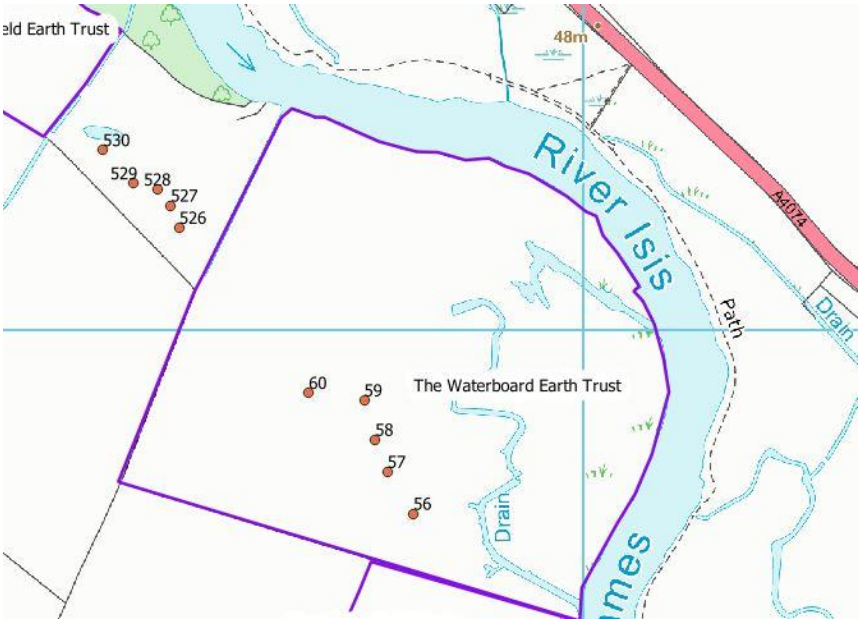
Site Visit Assessment Form – The Earth Trust. The Waterboard, Oxfordshire



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 in the Waterboard Field. No quadrats were recorded here in 2021. The small field to the north-west of The Waterboard Field was surveyed in 2021, and quadrat locations here are shown.

Site Name Earth Trust – The Waterboard	**Grid Ref** SU 589929	**County** Oxfordshire	
River Thames	**Ownership** The Earth Trust	**Designation** None	**Size (ha)** 12.02
Dates for surveys 19th May 2017 2nd June 2021 **Interview** 13th May 2021	**Site meeting with** No-one Interview with Chris Parker	**Managed by** The Earth Trust	
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. 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]: Chris - 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	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.
Flooding regime Water management Soil-water levels (indicated by auger hole/any other data)	

Current site interest See attached excel spreadsheet for botanical data.
Survey from 2017

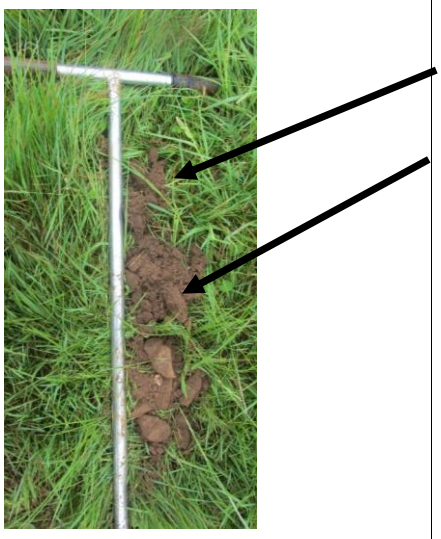
The field is very grassy, that's probably why the MG7 type of plant community came at the top in MAVIS calculation of the vegetation similarity to the known NVC types. Typical MG4-type score was close, but scores for both types (around 55%) were not very conclusive. On such shallow, well-drained and sandy soil the restoration of the species-rich meadow of the dry types like MG5 or MG4a would be expected. Regular floods probably maintain a higher level of nutrients which are used by grasses to their advantage. Both *Agrostis stolonifera* and *Festuca rubra* are dominant on the field. Other grasses and forbs are present in the small amounts.

Survey in 2021
The site was under grazing management at the time of the re-survey in 2021, so botanical quadrats were not sampled. A list of species was collected on a walk-through basis. Overall 34 species were recorded in the field in one walk across it. The list shows many typical meadow species present in the field. The process of reaching a well-balanced functional diversity as well as taxonomic diversity of the plant community, will take some time.

The set of quadrats (526-530) surveyed in the small field between Two Ponds Field and Water Board Field does not represent vegetation comparable with Water Board Field itself. Vegetation here is taxonomically and functionally poor and the level of soil nutrients should be reduced if meadow restoration is planned.

Phosphorus levels	Not known.

Soil profiles



Soil at quadrat 59

A horizon
0-20 – dark-brown sandy loam

B horizon
20-40 – sandy-sandy loam with large stones up to 5-7 cm, impossible to auger deeper.

Site manager aspirations/objectives

Wildflower meadows are a long term aim for The Earth Trust here. River of Life Project (2) is going to create ponds and backwater channels in areas that are botanically less diverse. Not sure about re-seeding these areas, might see what comes up naturally. They are wetter meadows.
Management recommendations
An annual hay cut would be recommended to decrease the vigour of the grasses and soil nutrients.

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