

1714 Milton
Environmental Permit Variation Application
March 2022

HABITATS ASSESSMENT

1 INTRODUCTION

Milton Landfill is a non-hazardous landfill, which is located on, Butt Lane, Milton, Cambridgeshire, CB24 6DQ, approximately 4km north of Cambridge city centre. It can be located by National Grid Reference TL 465 632.

The site is operated by FCC Environment, under permit number BV4584IU, originally issued in 2005 and most recently varied in 2016. Landfilling has been undertaken at the site since the 1980s. Earlier phases of landfilling included some hazardous wastes. Landfilling in Phases I and II is complete and the site is progressing towards the remaining few cells in Phase III, towards the north of the site.

This Habitats Assessment has been prepared to support a permit variation, which is being made to address the following:

- To revise the leachate compliance levels;
- To increase the annual tonnages of waste and restoration materials;
- To surrender small areas of land, which have not been landfilled;
- To include new groundwater monitoring boreholes and associated compliance limits;
- To reduce the number of leachate wells used for regular monitoring;
- A revised surface water management scheme.

A pre-application request was submitted to the Environment Agency (EA) and a meeting was held on 28 September 2020. Subsequent written advice from the EA was referenced EPR-BV4584IU_V010 and dated 8/8/20. The advice confirmed that the application fee would include a sum for a habitats assessment. This report assesses whether the permit variation application has the potential to affect the identified habitat receptors, as given in the Nature and Heritage Conservation Screen, provided by the EA on 6/11/20, refer to Appendix 1.

2 IDENTIFIED RECEPTORS

Table 1: Identified Receptors

	Name of Receptor	Designation	Distance from Site
1	Fenland SAC	Special Area of Conservation (SAC)	9.9km NE
2	Wicken Fen	Ramsar	7.5km NE
3	Histon Road SSSI	SSSI	2km SW
4	Bramblefields LNR	Local Nature Reserve (LNR)	1.5km SSE
5	Worts Meadow LNR	LNR	1.9km N
6	Ditton Meadows LWS	Local Wildlife Site (LWS)	2km SE
7	Milton Road Hedgerows	LWS	500m SE
8	King's Hedges Hedgerow	LWS	1km SSW
9	River Cam	LWS	2km SE

3 RECEPTOR DETAILS

1 Fenland SAC

The Joint Nature Conservation Committee (JNCC) describes the general site character as:

- Inland water bodies (5%);
- Bogs, marshes, water fringed vegetation, fens (70%);
- Other arable land (5%);
- Broad-leaved deciduous woodland (20%).

The selection of the site is on the basis of the following Annex I (Council Directive 92/43/EEC) habitats:

- Molinia meadows on calcareous, peaty or clayey-silt-laden soils.
- Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*.

The site also has the following Annex II species present:

- Spined loach;
- Great crested newt.

2 Wicken Fen Ramsar

The JNCC describes the Wicken Fen Ramsar as a marginal remnant of the original peat fenland of the East Anglian basin. The vegetation has a mosaic character. Species include sedges, rushes, spike rushes and marsh orchids, with associated insects. The water bodies support aquatic angiosperms. Wildfowl include mallard, teal, wigeon, shoveler, pochards and tufted duck.

3 Histon Road SSSI

The Cambridge and Peterborough Local Environmental Records Centre (CPERC) was contacted for details of habitats within a 2km radius of Milton Landfill. The reports provided are presented in Appendix 2.

Histon Road SSSI is designated as a geological conservation review site and is a key Pleistocene stratigraphic site. The deposit provides an almost complete record of the second half of the Ipswichian interglacial.

4 Bramblefields LNR

Bramblefields LNR is managed by Cambridge City Council. It is described as being important for birds, especially song thrushes. It has a mixture of grassland and scrub. The pond contains newts and frogs and attracts dragonflies.

5 Worts Meadow LNR

Cambridgeshire County Council describe Worts Meadow, in Landbeach, as a former mediaeval settlement. There are a number of wildlife habitats found on the site including

- Improved lowland grassland pasture
- Hedgerows

- Plantation woodland and ponds

The hedgerows provide habitat for a variety of species including yellow hammer. The three ponds on site contain great crested newts.

6 Ditton Meadows LWS

CPERC hold records of City and County Wildlife Sites. Ditton Meadows is described as lying within the flood plain of the River Cam. Central drain qualifies as species rich linear water body and also for NVC S6 Greater Pond-sedge swamp. Coldham's Brook qualifies as unmodified chalk stream.

Further details are presented in Appendix 2.

7 Milton Road Hedgerows LWS

CPERC record that Milton Road Hedgerows qualifies for its potential value as it just misses criteria for hedgerows and is likely to meet them in the future. The site is a hedgerow of moderate diversity. The habitat types are

- Grassland- poor semi-improved
- Cultivated disturbed ground-ephemeral/short perennial
- Boundaries - intact hedge

Further details are presented in Appendix 2.

8 King's Hedges Hedgerow LWS

CPERC records that King's Hedges Hedgerow supports hedgerow at least 100m in length and 2m in width at its widest point with four or more woody species, and with at least part of the hedge allowed to flower and fruit.

Further details are presented in Appendix 2.

9 River Cam LWS

The River Cam is a county wildlife site. CPERC describe the site as a major river (together with adjacent semi-natural habitat) that has not been grossly modified by canalisation and/or poor water quality. Additionally it has areas with concentrations of mature pollard willows.

Further details are presented in Appendix 2.

4 QUALITATIVE RISK ASSESSMENT

4.1 Risk Assessment Methodology

This risk assessment is a qualitative screening of the potential impact of the permit variation proposals on the identified receptors described above. This is a qualitative source-pathway-receptor assessment and does not constitute a detailed ecological appraisal. The source of risk is identified and the potential pathways to the various receptors are examined to determine whether there are any significant linkages. This is summarised in tabular format to assist with conclusions: Table 2: Assessment of Risks to Habitat Receptors.

4.2 Source

4.2.1 General

The sources within this permit application with the potential to affect habitats are:

1. raising of the standing leachate level/leachate head above the landfill base;
2. increasing the annual tonnages and
3. a revised surface water management scheme.

4.2.2 Raised Leachate Compliance Levels

The raising of leachate compliance levels will be to revised levels below the existing ground level. The revised Hydrogeological Risk Assessment demonstrates that there should be no adverse effect on local groundwater quality as a result.

4.2.3 Increased Tonnages

The site is reaching completion. It has been temporarily closed during the coronavirus pandemic. It is estimated that approximately 200,000 tonnes of wastes are required to fill the final cells and approximately 220,000 tonnes of soils are required to meet restoration requirements. The current permit limits the import of non-hazardous wastes to 150,000 tpa. FCC seeks to increase this to 200,000 tpa. The annual limit on wastes for restoration is to be agreed in line with Improvement Condition IC3. All material will be received and stored within the footprint of the existing site. It will be handled and managed in lined with the Restoration Plan.

4.2.4 Surface Water Management

The surface water management scheme will use a series of perimeter ditches within the footprint of the existing landfill. A new lagoon will be constructed on the northeastern side of the site between the entrance and the gas plant. This will outfall into the Thirteenth Public Drain, where the former effluent treatment plant previously discharged.

4.3 Pathways

4.3.1 Raised Leachate Compliance Levels

Pathways for leachate seepage from raised leachate levels to reach the identified receptors are as follows:

1. Lateral migration through engineered containment, to reach groundwater within the River Terrace Deposits and then lateral groundwater movement downgradient to receptors. This can only occur in a limited area of the site on the east, if the groundwater level falls below

the leachate level.

2. Vertical migration of leachate through a significant thickness of Gault Clay at times when the leachate level exceeds the piezometric surface of the Greensand. Migration away from site within the groundwater of the Greensand at depth.
3. Surface breakout of leachate to perimeter surface water drains. This would only occur if the trigger level was breached. There is 2 – 3 m between the proposed leachate compliance levels and the surrounding ground level.

4.3.2 Increased Tonnages

There are no direct pathways for increased tonnages to affect habitats off site. Any fugitive emissions, such as dust, would be managed in accordance with existing site management systems.

4.3.3 Surface Water

Pathways for surface water to reach off site receptors would be via the Thirteenth Public Drain. From here drainage passes below the A10 and flows downgradient south of the recreation ground; through Milton Country Park and below the railway line to reach the River Cam approximately 1.5km east of the site. However, as the discharge is of clean surface water only, there is limited potential for downgradient effects on receptors, except in the case of an accident, or spillage into the surface water system.

4.3.4 Summary

The pathways with potential to reach habitats in off-site locations are:

- 1) Migration of leachate seepages within shallow groundwater of the River Terrace Deposits to open water habitats downgradient;
- 2) Migration of surface waters affected by accidental spillages/events into the surface water system downgradient.

4.4 Receptors

The receptors in this assessment are the habitats identified in the EA's Nature and Heritage Conservation Screen and as summarised in Section 2.

5 ASSESSMENT AND CONCLUSIONS

Table 2 below assesses each identified habitat in turn against the two potential pathways identified in section 4.3.4.

The assessment concludes that there are no perceived linkages from the proposed changes to the environmental permit that could impact upon the identified receptors and therefore, the risk to the receptors is considered to be negligible. As no linkages have been identified, a detailed ecological assessment and management plan are not considered to be required.

Table 2: Assessment of Risks to Habitat Receptors

Pathway	Receptor	Nature of Linkage	Resulting Risk
Lateral migration through engineered containment into the River Terrace Deposits and from there to open water bodies downgradient	1. Fenland SAC	The direction of groundwater flow in the River Terrace deposits is southeasterly. Fenland SAC is 9.9km to the northeast. It is not considered downgradient of the site.	Low - no perceived linkage
	2. Wicken Fen	The direction of groundwater flow in the River Terrace deposits is southeasterly. Wicken Fen is 7.5km to the northeast. It is not considered downgradient of the site.	Low - no perceived linkage
	3. Histon Road SSSI	The direction of groundwater flow in the River Terrace deposits is southeasterly. Histon Road SSSI is 2km to the southwest. It is not considered downgradient of the site.	Low - no perceived linkage
	4. Bramblefields LNR	Bramblefields LNR is 1.5km south-southeast of the site, so is potentially downgradient. The British Geological Survey(BGS) geology of Britain viewer shows the presence of River Terrace Deposits below the LNR. The reserve is designated on the basis of birds, especially song thrush. It is a place of grassland and scrub. It also contains a pond with frogs and newts. It is considered unlikely that there will be continuity of groundwater flow within the variable River Terrace Deposits into the pond at this distance from the site.	Low - too far from site and River Terrace Deposits unlikely to be continuous over this distance.
	5. Worts Meadow LNR	Worts Meadow LNR is 1.9km north of the site. The direction of groundwater flow in the River Terrace deposits is southeasterly. It is not considered downgradient of the site.	Low - no perceived linkage
	6. Ditton Meadows LWS	Ditton Meadows LWS is 2km southeast of the site and potentially downgradient. The BGS geology of Britain viewer shows the presence of Alluvium below the LWS. The Alluvium is potentially in hydraulic continuity with the River Terrace Deposits, however, the LWS is on the eastern side for the River Cam. The River Cam is likely to represent a hydraulic boundary to migration to the east. The LWS is described as lying within the flood plain of the River Cam, including Central drain and Coldham's Brook. The latter qualifies as unmodified chalk stream and therefore, is a different geological catchment to the landfill.	Low - different catchment to landfill
	7. Milton Road Hedgerows	Milton Road Hedgerows are 500m southeast of the site and therefore, downgradient. The BGS geology of Britain viewer shows the presence of River Terrace Deposits below the LNR. The LWS is designated on the basis of Grassland- poor semi-improved; cultivated disturbed ground-	

Pathway	Receptor	Nature of Linkage	Resulting Risk
		ephemeral/short perennial and boundaries – intact hedge. The nature of the underlying groundwater of the River Terrace Deposits is unlikely to affect these habitats.	
	8. King's Hedges Hedgerow	King's Hedges Hedgerow is 1km southwest of the site. The direction of groundwater flow in the River Terrace deposits is southeasterly. The LWS is not considered downgradient of the site.	Low – no perceived linkage
	9. River Cam	The section of the River Cam designated as a LWS is 2km southeast of the site at its closest point. The River Cam flows from south to north, so it is the most downgradient point of the LWS that is at 2km distance. The LWS is designated as such on the basis of being a major river with semi-natural adjacent habitat, largely undisturbed by canalisation, or poor water quality. The HRA has demonstrated that there should be no adverse effect on groundwater quality on the boundary of the site. The likelihood of a deterioration in groundwater quality at a distance of 2km and with the added dilution of the River Cam is very unlikely.	
Surface water affected by accidental contamination event migrating to surface water fed habitats downgradient	1. Fenland SAC	Fenland SAC is 9.9km to the northeast. It is not considered downgradient of the site's surface water system.	Low – no perceived linkage
	2. Wicken Fen	Wicken Fen is 7.5km to the northeast. It is not considered downgradient of the site's surface water system.	Low – no perceived linkage
	3. Histon Road SSSI	Histon Road SSSI is 2km to the southwest. It is not considered downgradient of the site's surface water system	Low – no perceived linkage
	4. Bramblefields LNR	Bramblefields LNR is 1.5km south-southeast of the site. It is not fed by a surface water drain that is directly downgradient of the landfill.	Low – no perceived linkage
	5. Worts Meadow LNR	Worts Meadow LNR is 1.9km north of the site. It is not considered downgradient of the site's surface water system.	Low – no perceived linkage
	6. Ditton Meadows LWS	Ditton Meadows LWS is 2km southeast of the site and on the east of the River Cam. It is not considered downgradient of the site's surface water system.	Low – no perceived linkage
	7. Milton Road Hedgerows	Milton Road Hedgerows are 500m southeast of the site. They are separated from the site by the A14 roundabout. There appears to be no direct connection with the drainage from the landfill. The hedgerows are designated on the basis of grassland and hedge habitats and are unlikely to be affected by surface water quality.	

Pathway	Receptor	Nature of Linkage	Resulting Risk
	8. King's Hedges Hedgerow	King's Hedges Hedgerow is 1km southwest of the site. It is not considered downgradient of the site's surface water system.	Low - no perceived linkage
	9. River Cam	The River Cam LWS is 2km southeast of the landfill at its closest point. The drainage from the landfill reaches the River Cam, after flowing through Milton Country Park at a point 1.3km downgradient. There is no direct pathway to the River Cam.	Low - indirect linkage and 2km distance from site

APPENDIX 1

Environment Agency Nature and Heritage Conservation Screen

Nature and Heritage Conservation

Screening Report: Bespoke installations

Reference	EPR/BV4584IU/V010
NGR	TL4632362655
Buffer (m)	715
Date report produced	06/11/2020
Number of maps enclosed	5

The nature conservation sites identified in the table below must be considered in your application.

Nature and heritage conservation sites	Screening distance (km)	Further information
Special Areas of Conservation (cSAC or SAC)	10	Joint Nature Conservation Committee
Fenland (SAC)		
Ramsar	10	Joint Nature Conservation Committee
Wicken Fen (Ramsar)		
Sites of Special Scientific Interest (SSSI)	2	Natural England
Histon Road (SSSI)		
Local Nature Reserve (LNR)	2	Natural England
Bramblefields (LNR)		
Worts Meadow (LNR)		
Bramblefields (LNR)		

Local Wildlife Sites (LWS)

2

[Appropriate Local Record
Centre \(LRC\)](#)

Ditton Meadows

Milton Road Hedgerows

King's Hedges Hedgerow

River Cam

The relevant Local Records Centre must be contacted for information on the features within local wildlife sites. A small administration charge may also be incurred for this service.

Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

Please note, the enclosed pre-application map(s) is valid for a period of **6 months**. If you plan to submit your application more than 6 months after the map(s) was generated, you must request that the screen is re-run. This will ensure that you have used the most current information on heritage and nature conservation interests in your application.

customer service line
03708 506 506


incident hotline
0800 80 70 60

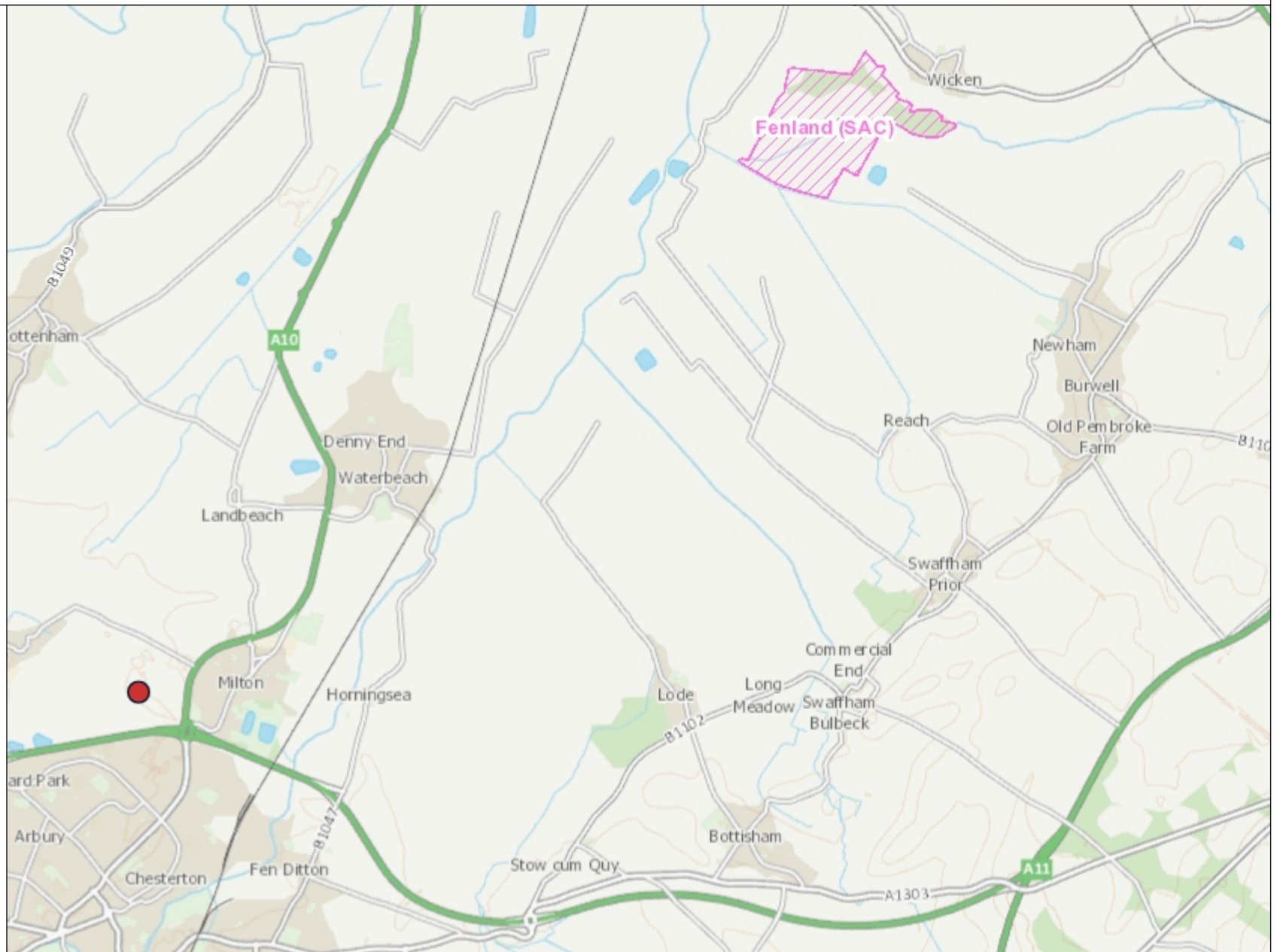
floodline
0845 988 1188

www.environment-agency.gov.uk

Special Areas of Conservation

Legend

 SAC (England)



1: 75,000


0 1,875

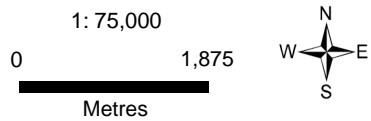
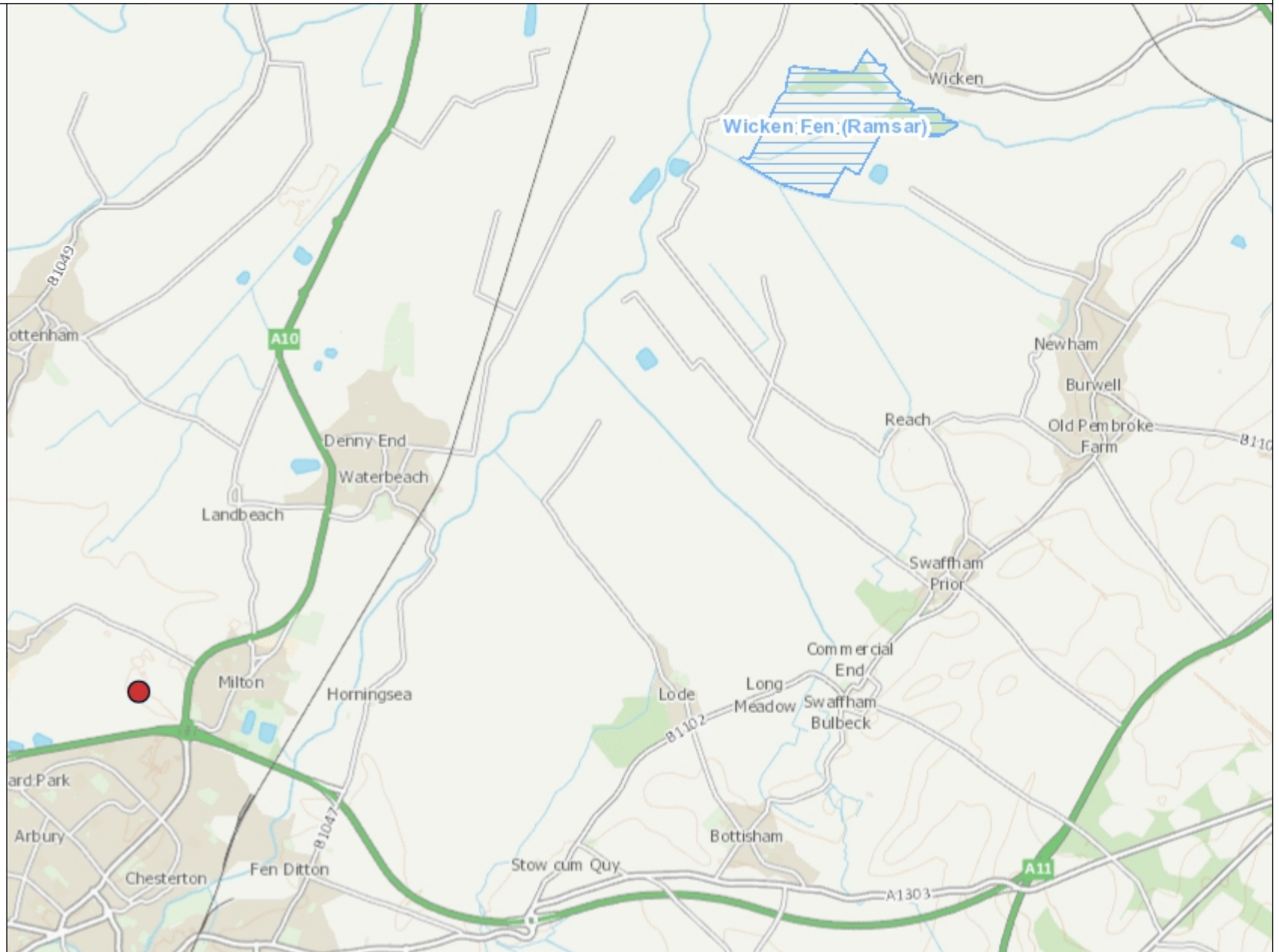
Metres



Ramsar


Legend

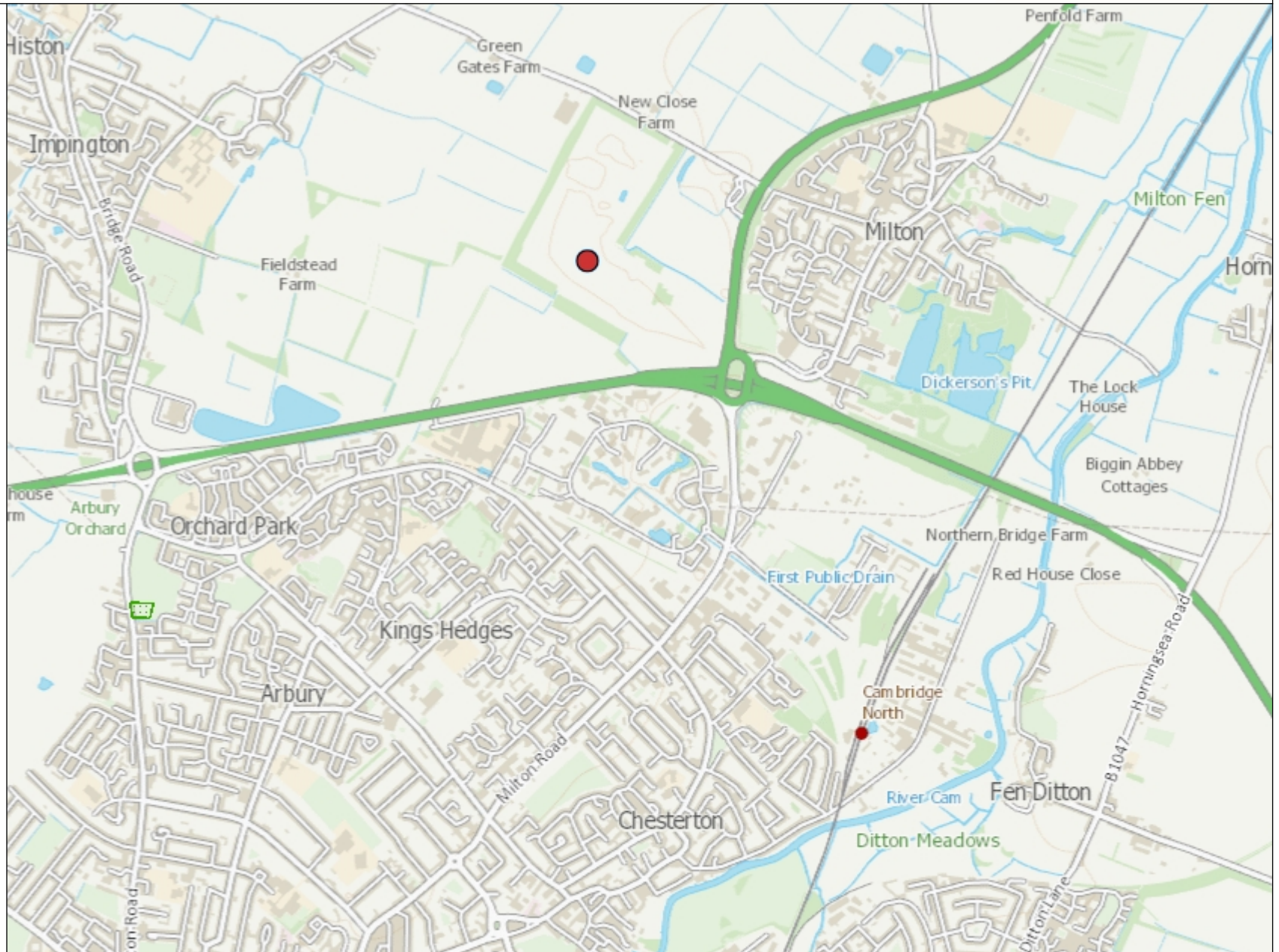
 Ramsar (England)



Sites of Special Scientific Interest

Legend

 SSSI (England)



1: 25,000

0 625


Metres

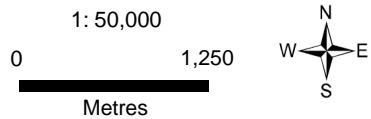
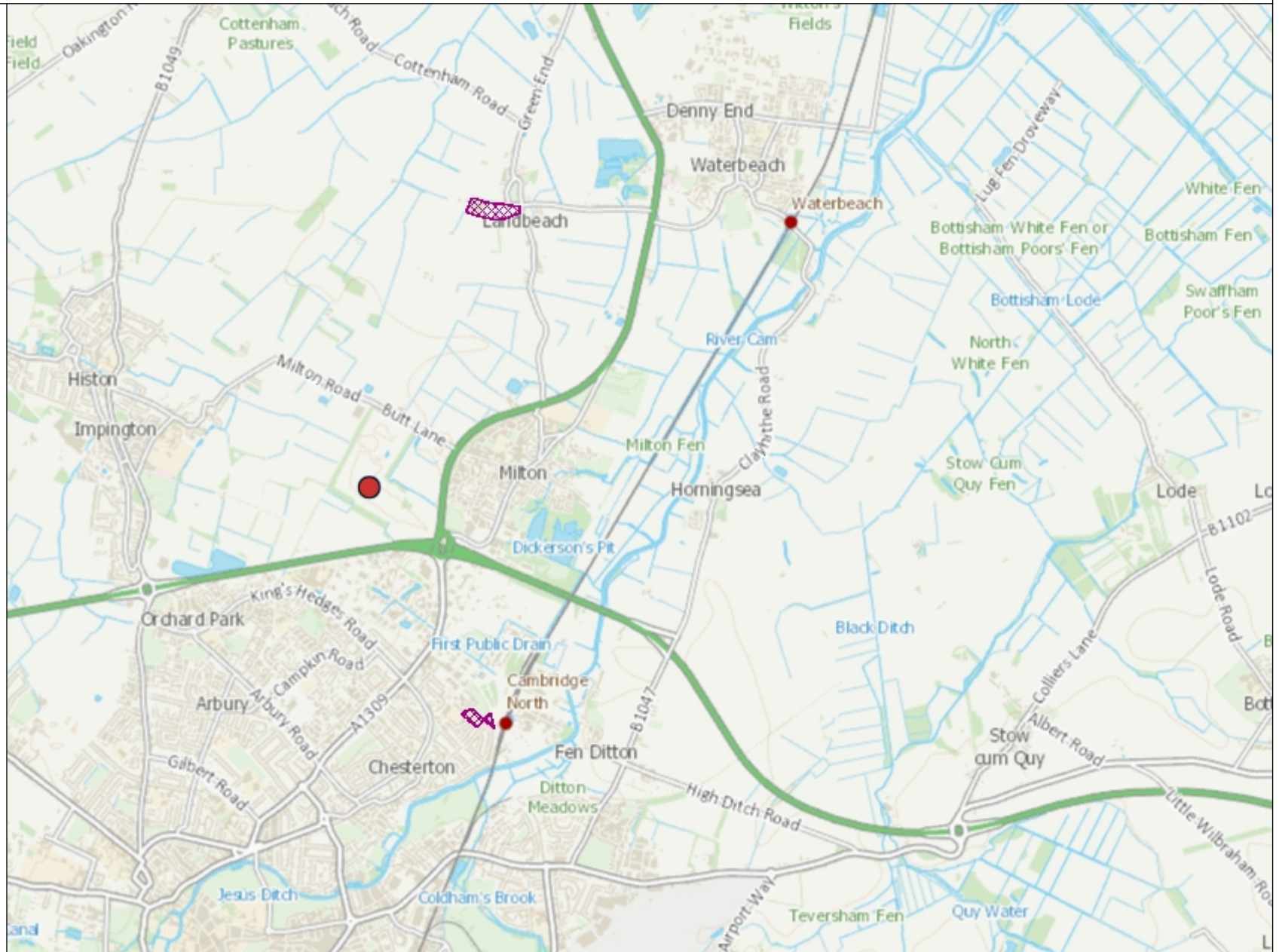


Local Nature Reserve



Legend

 LNR (England)

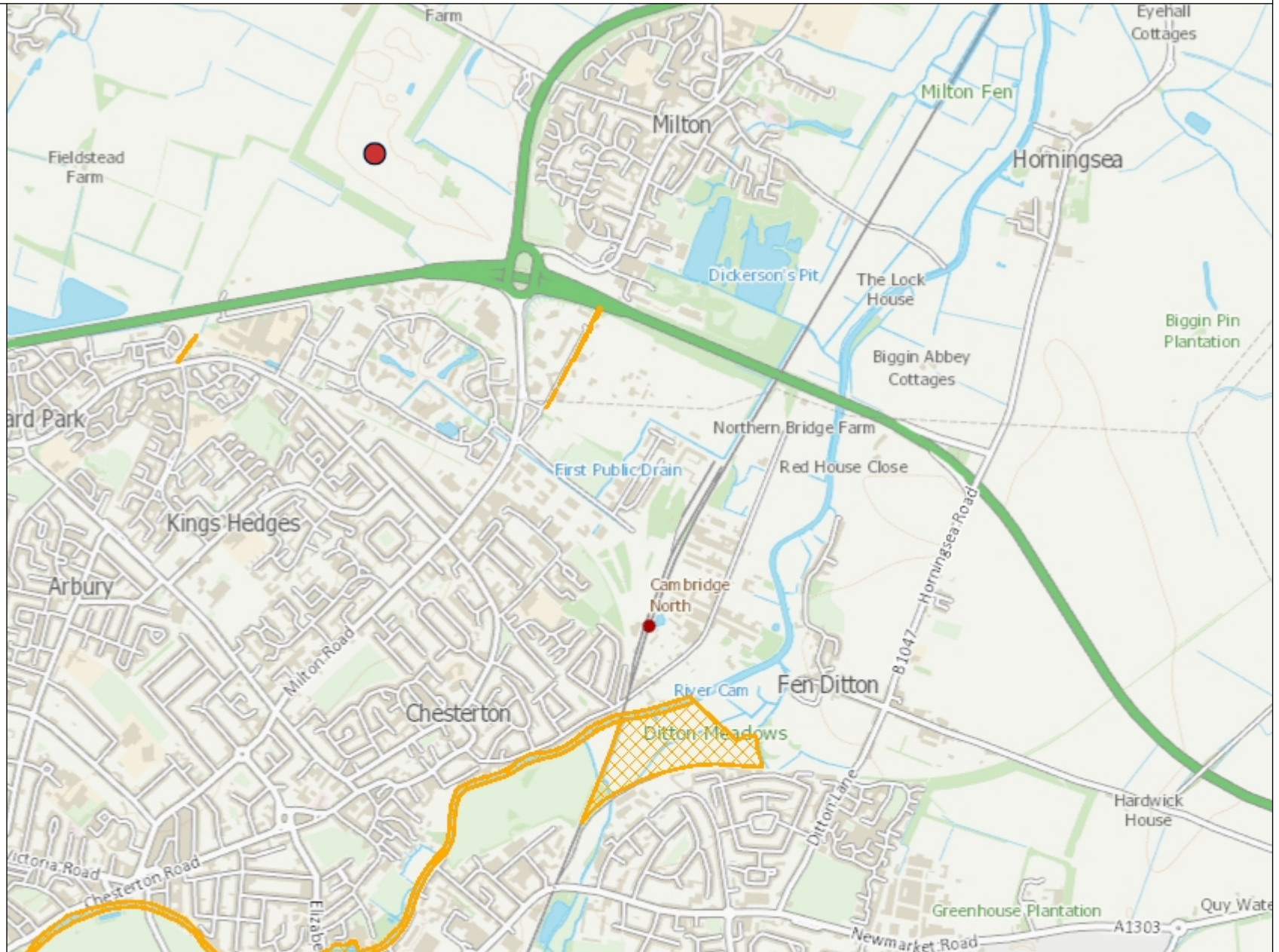


Local Wildlife Sites



Legend

 Local Wildlife Sites



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0 625

Metres

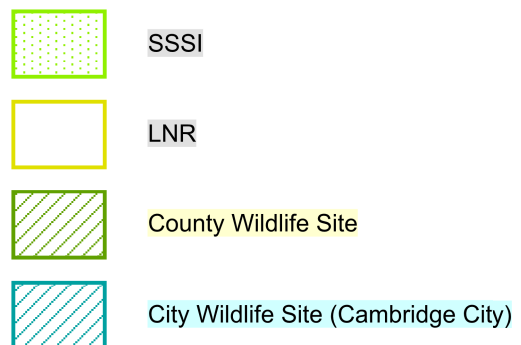
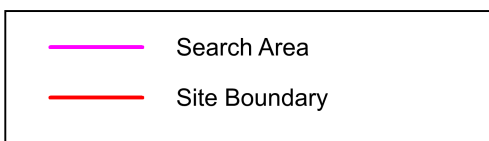
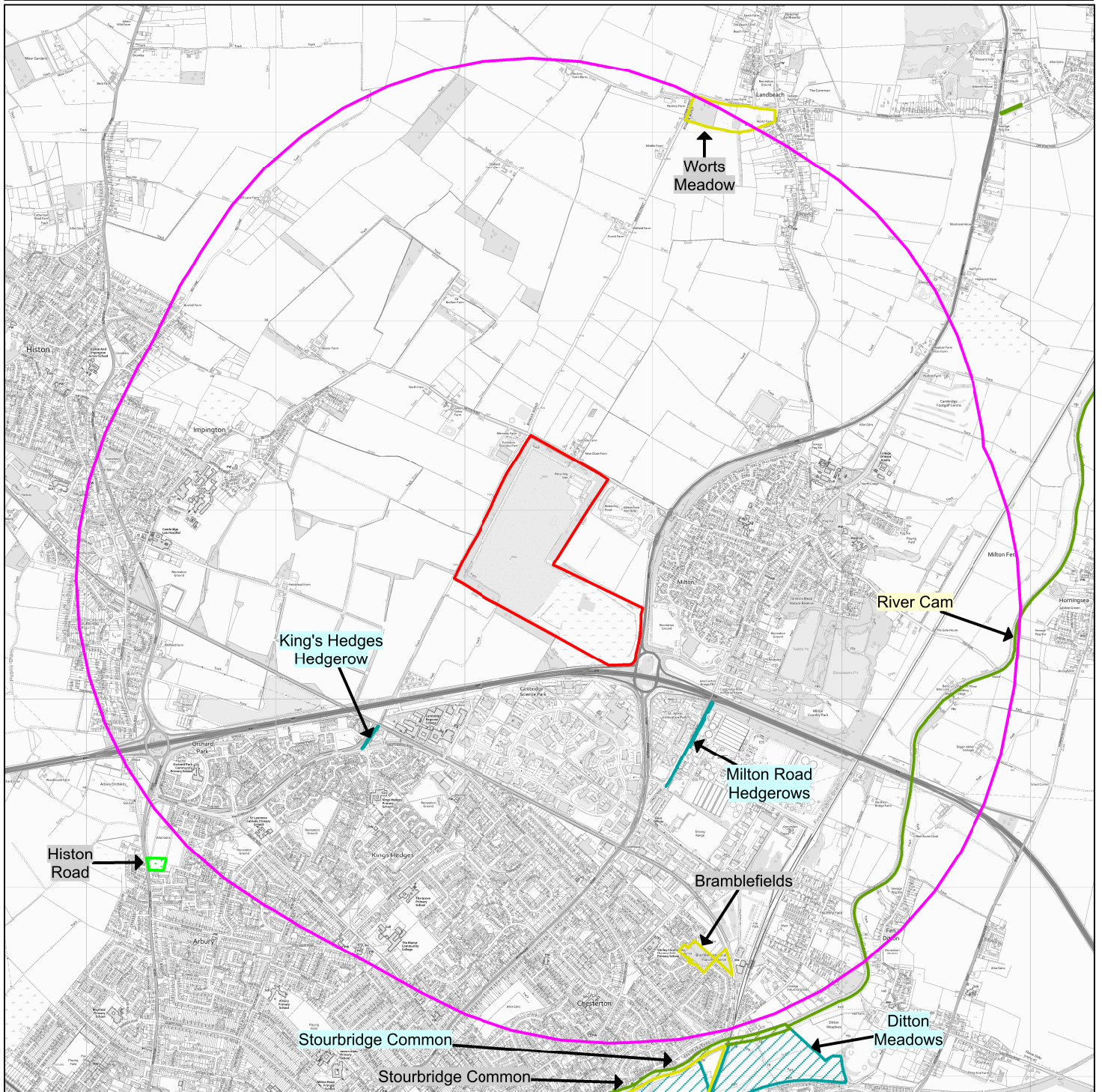


APPENDIX 2
CPERC Records

Designated Sites Map
 for McDonnell Cole Ltd.
 Milton
 20/11/2020
 1:30,000

CPERC
 The Manor House
 Broad Street
 Cambourne
 Cambridgeshire
 CB23 6DH

C P E R C
 CAMBRIDGESHIRE & PETERBOROUGH
 ENVIRONMENTAL RECORDS CENTRE



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
 Cambridgeshire County Council 100023205 (2020)

Designated Sites within a 2km radius of the site boundary

Date: 20/11/2020

Site Reference: McDonnell_Cole_Milton

LNRs

Site Name	Grid Ref	Area (ha)
Bramblefields	TL472606	2.06
Worts Meadow	TL474650	5.64672

County Wildlife Sites

Site Name	Grid Ref	Area (ha)	Reasons for Designation
River Cam	TL45	n/a	Is a major river (together with adjacent semi-natural habitat) that has not been grossly modified by canalisation and/or poor water quality. Additionally it has areas with concentrations of mature pollard willows.

City Wildlife Sites

Site Name	Grid Ref	Area (ha)	Reasons for Designation
King's Hedges Hedgerow	TL454617	0.08	Supports hedgerow at least 100m in length and 2m in width at its widest point with four or more woody species, and with at least part of the hedge allowed to flower and fruit.
Milton Road Hedgerows	TL472617	0.25	Site qualifies for its potential value as it just misses criteria for hedgerows and is likely to meet them in the future.

Additional Designated Sites within a 2.2km radius of the site boundary

Date: 20/11/2020

Site Reference: McDonnell_Cole_Milton_Additional

SSSIs

Site Name	Grid Ref	Area (ha)	Reasons for designation
Histon Road	TL443611	0.62	This is a 'Geological Conservation Review' site, and is a key Pleistocene stratigraphic site. The deposit provides an almost complete record of the second half of the Ipswichian Interglacial.

LNRs

Site Name	Grid Ref	Area (ha)
Stourbridge Common	TL470598	19.38

City Wildlife Sites

Site Name	Grid Ref	Area (ha)	Reasons for Designation
Ditton Meadows	TL476600	15.96	Lies within the flood plain of the River Cam. Central drain qualifies as species rich linear water body and also for NVC S6 Greater Pond-sedge swamp. Coldham's Brook qualifies as unmodified chalk stream.
Stourbridge Common	TL469598	17.76	Area of undeveloped floodplain directly associated with the River Cam County Wildlife Site.

COUNTY WILDLIFE SITE FULL RECORD SHEET

NAME: River Cam (SCDC)

File code: S/1997

Parish(es): Ickleton
Hinxton
Duxford
Pampisford
Whittlesford
Sawston
Little Shelford
Great Shelford
Hauxton
Grantchester
Cambridge
Milton
Fen Ditton
Horningsea
Waterbeach

County: Cambridgeshire

Grid ref.: TL45

Habitat information

Code	Habitat type
A111	Woodland: broadleaved, semi-natural
A112	Woodland: broadleaved, plantation
A21	Scrub: dense/continuous
A22	Scrub: scattered
A31	Parkland/scattered trees: broad-leaved
B22	Grassland: neutral, semi-improved
B6	Grassland: poor semi-improved
C31	Tall herb and fern: other, tall ruderal
F1	Swamp
F2	Marginal/inundation
G1	Open water: standing water
G2	Open water: running water
J12	Cultivated/disturbed land: amenity grassland
J21	Boundaries, intact hedge
J22	Boundaries, defunct hedge

J261 Boundaries, permanently wet ditch
J262 Boundaries, seasonally wet ditch

Site description

The River Cam is a major river with generally moderate to good water quality and a relatively unmodified channel. It supports a wide range of submerged, floating, marginal and wetbank vegetation. Pollard willows occur along most stretches of the river; high concentrations are to be found in many areas, eg. near Whittlesford, Duxford, the Shelfords, along Haling Way. Recent surveys have found evidence of otters regularly using the river and associated watercourses. This site includes a large section of the Bourn Brook, which is a tributary stream of the river. The brook is also used by otters and certain sections support good concentrations of pollard willows. Although not outlined on the boundary map the River Cam CWS should be considered to include all adjacent or nearby riparian habitat in the flood plain. Such features as flood meadows and washlands (even those that have been agriculturally improved), willow or alder woodland and scrub, old river channels and mill races, associated minor watercourses, pollard willows, are an essential part of the river ecology. All developments and proposals that may affect these features need to be assessed if the wildlife value of the river is to be safeguarded. The Cam Washes SSSI at Waterbeach is not part of the site.

Site assessment

The site qualifies as CWS because it is a major river not grossly modified by pollution or canalisation. Additionally it qualifies because it has many areas with concentrations of mature pollard willows.

Site status

Part of a proposed County Wildlife Site
Main River

SITE RECORD SHEET

SITE NAME: King's Hedges Hedgerow

Site code: F8.1

Grid ref: TL455618

Habitat information

Code **Habitat type**

J2.2.1 Boundaries: defunct hedge, species rich

Site area: Ha

Site description

This site consists of the agger of the roman road of Akeman Street, and its associated old hedge. This broad overgrown old hedgerow is on both sides of the agger, with a path up the middle. It is diverse, and somewhat gappy yet in places dense. Hawthorn *Crataegus monogyna* and suckering Blackthorn *Prunus spinosa* are the most common woody species, but there are several Hazel *Corylus avellana* stools and a large Ash *Fraxinus excelsior*. Many English Elm *Ulmus procera* stems appear to have died in recent years; young suckers were not readily apparent but could easily have been missed. Bramble *Rubus fruticosus* agg is frequent with occasional Field Maple *Acer campestre*.

Site assessment

This site qualifies as a City Wildlife Site for hedgerows (criterion 2.9). Hedgerows at least 100m in length and comprised of shrubs greater than 2m in width at the widest point, with four or more woody species, and with as least part of the hedge allowed to flower and fruit.

SITE RECORD SHEET

SITE NAME: Milton Road Hedgerow
Site code: H8.1
Grid ref: TL471617
Date of survey: 15/8/05
Surveyor : Steve Hartley

Habitat information

Code	Habitat type
B6	Grassland: poor semi-improved
J1.3	Cultivated disturbed ground: ephemeral/short perennial
J2.1	Boundaries, intact hedge

Site area:

0.23 ha

Site description

This site is a hedgerow of moderate diversity, running beside Cowley Road and, for much of its length, past the sewage works. It appears generally unmanaged or trimmed infrequently, and is up to 6m tall and at least 2m wide except for occasional gaps.

The northern section runs for about 60m beside the ramp of the new cycle bridge over the A14. Shrubs are nearly all Hawthorn *Crataegus monogyna*, English Elm *Ulmus procera* and a small plum *Prunus sp.*. There is little ground flora and the adjacent species-poor grassland has been resown after the cycle bridge works.

The middle section, about 200m long, has the same mix of shrubs as the northern section, but there is more ground flora which has a ruderal leaning, including species such as Mugwort *Artemisia vulgaris*, Common Nettle *Urtica dioica* and Black Horehound *Ballota nigra*. Much of the adjacent verge is now cyclepath.

The shrubs in the southern section, about 240m long, consist only of Hawthorn and the small plum, with rare Elder *Sambucus nigra*. The ground flora is similar to that of the middle section, and much of the adjacent verge is again cyclepath.

The only grassland indicator species found was occasional Bladder Campion *Silene vulgaris* in the middle and southern sections. The hedgeline is continued south of the site by a short length of frequently trimmed Hawthorn, with a few seedlings of other species.

The site contains only 3 designated woody species for determining scrub and hedgerow value, namely Hawthorn, Elder and Wayfaring-tree *Viburnum lantana*, although the small plum must have high value as a food source. The short length of hedge to the south of the site has one further designated woody species, Ash *Fraxinus excelsior*, in it.

Site assessment

Strictly, this site fails to qualify as a City Wildlife Site for hedgerows (criterion 2.9), since it has 3 designated woody species and the qualifying number is 4. However, the hedge clearly has high wildlife value, given that the value of the other species present is high and that the hedge fruits for the great majority of its length. Also, natural seeding processes are likely to introduce one or more further species in the near future, so the site qualifies for its potential value (criteria 2.45).

SPECIES LISTS

Northern section

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Alliaria petiolata</i>	Garlic Mustard	o		WP
<i>Anisantha sterilis</i>	Barren Brome	o		
<i>Arctium sp.</i>	a burdock	o		
<i>Bryonia dioica</i>	White Bryony	r		
<i>Cirsium arvense</i>	Creeping Thistle	o		
<i>Conium maculatum</i>	Hemlock	o		
<i>Convolvulus arvensis</i>	Field Bindweed	la		
<i>Crataegus monogyna</i>	Hawthorn	f	f-la	WS
<i>Dactylis glomerata</i>	Cock's-foot	o		
<i>Galium aparine</i>	Cleavers	o		
<i>Geranium molle</i>	Dove's-foot Crane's-bill	o		
<i>Hedera helix</i>	Ivy	o	o	WP
<i>Lolium perenne</i>	Perennial Rye-grass	o		
<i>Papaver rhoeas</i>	Common Poppy	r		
<i>Papaver somniferum</i>	Opium Poppy	f		
<i>Pastinaca sativa</i>	Wild Parsnip	r		CG
<i>Poa sp.</i>	a meadow-grass	o		
<i>Prunus sp.</i>	a small plum		f	
<i>Reseda luteola</i>	Weld	o		
<i>Sambucus nigra</i>	Elder	o	r	WS
<i>Silene latifolia</i>	White Campion	o		
<i>Stellaria media agg.</i>	Chickweed	o		
<i>Symphoricarpos albus</i>	Snowberry		r	
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	o		
<i>Ulmus procera</i>	English Elm	f	la	WP
<i>Urtica dioica</i>	Common Nettle	o		
<i>Veronica sp.</i>	a speedwell	f		

Middle section

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Aesculus hippocastanum</i>	Horse-chestnut	r	r	
<i>Anisantha sterilis</i>	Barren Brome	o	r	
<i>Arctium minus</i>	Lesser Burdock		o	WP
<i>Arctium sp.</i>	a burdock	r		
<i>Arrhenatherum elatius</i>	False Oat-grass	r	r	
<i>Artemisia vulgaris</i>	Mugwort		f	

Middle section (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Ballota nigra</i>	Black Horehound		f	
<i>Bryonia dioica</i>	White Bryony	o	o	
<i>Chaerophyllum temulum</i>	Rough Chervil	r		
<i>Cirsium arvense</i>	Creeping Thistle	o	r	
<i>Cirsium vulgare</i>	Spear Thistle	o	r	
<i>Convolvulus arvensis</i>	Field Bindweed		o	
<i>Crataegus monogyna</i>	Hawthorn	o	f-la	WS
<i>Dactylis glomerata</i>	Cock's-foot	o	r	
<i>Festuca rubra</i> agg.	Red Fescue		lf	
<i>Geranium molle</i>	Dove's-foot Crane's-bill	f		
<i>Glechoma hederacea</i>	Ground-ivy	o	lf	WP
<i>Hedera helix</i>	Ivy	f	o	WP
<i>Holcus lanatus</i>	Yorkshire-fog		r	
<i>Hordeum murinum</i>	Wall Barley	f		
<i>Lactuca serriola</i>	Prickly Lettuce		r	
<i>Lamium album</i>	White Dead-nettle	o		
<i>Lapsana communis</i>	Nipplewort	r		WP
<i>Lolium perenne</i>	Perennial Rye-grass		o	
<i>Malva sylvestris</i>	Common Mallow		o	
<i>Mycelis muralis</i>	Wall Lettuce		r	
<i>Oxalis articulata</i>	Pink-sorrel	r		
<i>Picris echinoides</i>	Bristly Oxtongue		f	
<i>Plantago lanceolata</i>	Ribwort Plantain	o	f	
<i>Poa annua</i>	Annual Meadow-grass	o		
<i>Potentilla reptans</i>	Creeping Cinquefoil	o	r	
<i>Prunus sp.</i>	a small plum		f	
<i>Ranunculus repens</i>	Creeping Buttercup		r	
<i>Reseda lutea</i>	Wild Mignonette		o	
<i>Rumex obtusifolius</i>	Broad-leaved Dock		r	
<i>Sambucus nigra</i>	Elder		r	WS
<i>Senecio jacobaea</i>	Common Ragwort	o	f	
<i>Silene vulgaris</i>	Bladder Champion	o	o	CG
<i>Sonchus arvensis</i>	Perennial Sow-thistle		o	
<i>Sonchus asper</i>	Prickly Sow-thistle		r	
<i>Taraxacum officinale</i> agg.	Dandelion		r	
<i>Trifolium repens</i>	White Clover		r	
<i>Ulmus procera</i>	English Elm	f	la	WP
<i>Urtica dioica</i>	Common Nettle	a	f	
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	r		
<i>Viburnum lantana</i>	Wayfaring-tree		r	WS

Southern section

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Acer pseudoplatanus</i>	Sycamore	o	o	
<i>Achillea millefolium</i>	Yarrow	o		
<i>Alliaria petiolata</i>	Garlic Mustard	o		WP
<i>Anagallis arvensis</i>	Scarlet Pimpernel	r		
<i>Anthriscus sylvestris</i>	Cow Parsley		o	

Southern section (continued)

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		<i>1998</i>	<i>2005</i>	
<i>Arctium minus</i>	Lesser Burdock		o	WP
<i>Arctium sp.</i>	a burdock	o		
<i>Arenaria serpyllifolia sens. lat.</i>	Thyme-leaved Sandwort	r		
<i>Arrhenatherum elatius</i>	False Oat-grass	f		
<i>Artemisia vulgaris</i>	Mugwort		f	
<i>Ballota nigra</i>	Black Horehound	lf	f	
<i>Bryonia dioica</i>	White Bryony	o	o	
<i>Carex hirta</i>	Hairy Sedge	o		NG
<i>Cerastium fontanum</i>	Common Mouse-ear	o		
<i>Chaerophyllum temulum</i>	Rough Chervil	o		
<i>Chenopodium album</i>	Fat-hen		lf	
<i>Cirsium arvense</i>	Creeping Thistle	o	r	
<i>Cirsium vulgare</i>	Spear Thistle	o		
<i>Convolvulus arvensis</i>	Field Bindweed		o	
<i>Crataegus monogyna</i>	Hawthorn	d	f-la	WS
<i>Dactylis glomerata</i>	Cock's-foot	f		
<i>Dipsacus pilosus</i>	Small Teasel		r	WP
<i>Elytrigia repens</i>	Common Couch		r	
<i>Erysimum cheiranthoides</i>	Treacle Mustard	r		
<i>Festuca sp.</i>	a fescue	o		
<i>Fumaria officinalis</i>	Common Fumitory	r		
<i>Geranium molle</i>	Dove's-foot Crane's-bill	o		
<i>Hedera helix</i>	Ivy	f		WP
<i>Hordeum murinum</i>	Wall Barley	lf		
<i>Hypochaeris radicata</i>	Cat's-ear	o		
<i>Lactuca serriola</i>	Prickly Lettuce		r	
<i>Lolium perenne</i>	Perennial Rye-grass	a	o	
<i>Malva sylvestris</i>	Common Mallow	r	o	
<i>Papaver rhoeas</i>	Common Poppy	o		
<i>Pastinaca sativa</i>	Wild Parsnip	o		CG
<i>Persicaria maculosa</i>	Redshank	r		
<i>Picris echioides</i>	Bristly Oxtongue		f	
<i>Plantago lanceolata</i>	Ribwort Plantain	f	f	
<i>Poa sp.</i>	a meadow-grass	f		
<i>Potentilla reptans</i>	Creeping Cinquefoil	f	r	
<i>Prunus sp.</i>	a small plum	f	f	
<i>Reseda lutea</i>	Wild Mignonette		o	
<i>Reseda luteola</i>	Weld	r		
<i>Rubus fruticosus</i> agg.	Bramble	o	r	WP
<i>Rumex crispus</i>	Curled Dock	o		
<i>Rumex obtusifolius</i>	Broad-leaved Dock		r	
<i>Sambucus nigra</i>	Elder	o	r	WS
<i>Senecio jacobaea</i>	Common Ragwort	o	f	
<i>Silene latifolia</i>	White Champion	o		
<i>Silene vulgaris</i>	Bladder Champion	r	o	CG
<i>Sonshus arvensis</i>	Perennial Sow-thistle		o	
<i>Sonchus asper</i>	Prickly Sow-thistle	o		
<i>Taraxacum officinale</i> agg.	Dandelion		r	
<i>Tragopogon pratensis</i>	Goat's-beard	r		
<i>Trifolium dubium</i>	Lesser Trefoil	o		
<i>Ulmus procera</i>	English Elm	f		WP
<i>Ulmus sp.</i>	an elm	o		WP

Southern section (continued 2)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Urtica dioica</i>	Common Nettle	f	f	
<i>Veronica agrestis</i>	Green Field-speedwell	r		
<i>Veronica polita</i>	Grey Field-speedwell	r		
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	r		
<i>Viola arvensis</i>	Field Pansy	o		

Short length of hedge to the south of the site

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Acer pseudoplatanus</i>	Sycamore		o	
<i>Bryonia dioica</i>	White Bryony		o	
<i>Crataegus monogyna</i>	Hawthorn	f-la		WS
<i>Fraxinus excelsior</i>	Ash	r		WS
<i>Hedera helix</i>	Ivy	o		WP
<i>Rubus fruticosus</i> agg.	Bramble	r		WP

a abundant
 f frequent
 o occasional
 r rare
 l locally

NG Weak indicator species, neutral grassland
 CG Weak indicator species, calcareous grassland
 NG/CG Weak indicator species, neutral and calcareous grassland
 NG* Strong indicator species, neutral grassland
 CG* Strong indicator species, calcareous grassland
 NG*/CG* Strong indicator species, neutral and calcareous grassland

WP Woodland plant used for determining woodland value
 WS Woody species for determining scrub or hedgerow value

Botanical scientific nomenclature follows Stace CA (1997) *New Flora of the British Isles* (2nd ed.) CUP.

Fauna, entire site

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Oryctolagus cuniculus</i>	Rabbit	p	p	
<i>Phylloscopus trochilus</i>	Willow Warbler	p		
<i>Regulus regulus</i>	Goldcrest	p		
<i>Sturnus vulgaris</i>	Starling	50		
<i>Sylvia atricapilla</i>	Blackcap	p		

p present

SITE RECORD SHEET

SITE NAME: Ditton Meadows
Site code: H7.5
Grid ref: TL476600
Date of survey: 22/9/05
Surveyor: Steve Hartley

Habitat information

Code	Habitat type
A1.1.1	Woodland: broadleaved, semi-natural
A2.1	Scrub: dense/continuous
A3.1	Parkland/scattered trees: broadleaved
B6	Grassland: poor semi-improved
G2	Running water
F1	Swamp
J2.1	Boundaries, intact hedge
J2.2	Boundaries, defunct hedge
J2.3	Boundaries, hedge with trees
J2.6.1	Boundaries, permanently wet ditch

Site area:

15.87 ha

Site description

This site consists of four flood meadows on the south side of the River Cam, with drains, some hedges, and areas of adjacent scrub woodland. The grasslands remain substantially improved. The southern and eastern fields are divided only partially by a damp ditch and are here treated as one. The drains have a wide range of wetland plants. At the time of survey the whole site was being cattle-grazed as one block and the average sward height was 20cm. The far south-western corner of the site has grown up and largely lost its previously recorded drier grassland area to scrub. Similar flood meadows and ditches continue to the east beyond the city boundary, as well as a young woodland plantation, and Stourbridge Common City Wildlife Site lies across the railway to the west.

The grassland is very similar across the four fields, consisting mostly of an improved sward dominated throughout by grasses, such as Perennial Rye-grass *Lolium perenne*, Creeping Bent *Agrostis stolonifera*, Cock's-foot *Dactylis glomerata* and in places by Creeping Thistle *Cirsium arvense*. The forb species are uninteresting. The only indicator species found was Hairy Sedge *Carex hirta*, which grows mainly in the wetter, lower, areas. These lie throughout much of the western field and around the boundary between the northern and southern/eastern fields. At the time of the survey the western field had a small area of standing water. Other species in the wetter areas include Tufted Hair-grass

Deschampsia cespitosa, Greater Pond-sedge *Carex riparia*, and Hard Rush *Juncus inflexus*.

The central and eastern ditch system has more interest. The ditches are 2-4m wide and total approximately 1000m in length. The water depth ranges from puddled mud to over 50cm. Grazing cattle have moderately poached their banks. They are largely unshaded. A broken hedge, 2-4m tall, runs along the western edge of the southern/eastern field, which becomes taller and denser at its western end where it runs beside the disused railway. Here the ditch dries out. Despite this shade, the section of ditch beside the lower portion of the hedge appeared to be the most diverse on the site. In two 20m transects, 10 and 11 species of submerged, floating, emergent and wetbank vegetation were recorded. Sampling of the submerged and floating plants was not comprehensive so these figures are likely to be underestimates. The rest of the ditch system is filled in large part by Reed Sweet-grass *Glyceria maxima* and Greater Pond-sedge *Carex riparia*, with frequent Hard Rush on the wet banks, and other plants such as Lesser Water-parsnip *Berula erecta* being locally frequent. Towards the eastern end there is an area where the water is more open. Here Spiked Water-milfoil *Myriophyllum spicatum* is abundant and stoneworts are found at the water's-edge. The ditch at the extreme east of the site is lined at its southern and eastern end, where it eventually dries out, by increasing scrub and mature trees, including several large Ash *Fraxinus excelsior*.

Coldham's Brook is mostly heavily shaded where it runs across the site, and channel vegetation is infrequent. The overflow ditch which runs along the western margin of the site, from Coldham's Brook to the Cam, is inaccessible and was surveyed from beyond a high fence. Nevertheless a diverse wetland flora was apparent, especially at the north end where the ditch has standing water.

The southern boundary of the southern/eastern field is a largely defunct hedge. At the western end it is tall and has thickened to a small area of dense scrub in the field's west corner. As the hedge runs east it thins and reduces in height, until at the eastern end it is thin and is a very widely scattered line of bushes. Much of the adjacent disused railway has been added to adjoining gardens.

The south-eastern corner of the site is largely inaccessible, and was mostly recorded from the footbridge over the railway. This area now has rank vegetation in the northern corner, dominated by Common Nettles *Urtica dioica* and Hedge Bindweed *Calystegia sepium*, merging into dense scrub of Hawthorn *Crataegus monogyna* and a suckering elm *Ulmus sp.* in the central strip, and mature trees, including Ash, bordering the disused railway.

The site is much used for exercising dogs. The cyclepath, which has been built since the last survey and runs from Stourbridge Common along the river via a parapet under the railway, has increased the numbers of walkers and cyclists across the site. Despite this use the central part of the site is reasonably undisturbed – a Snipe *Gallinago gallinago* was flushed from the ditch between the northern and southern/eastern fields during the present survey, and Grey Heron *Ardea cinerea* also regularly hunt along there.

Site assessment

The site is a City Wildlife Site (City WS) qualifying under criterion 2.17, an area of undeveloped floodplain directly associated with the River Cam County Wildlife Site. The central drain system qualifies as a City WS in its own right under the linear water body criterion (2.13), and also for Greater Pond-sedge swamp (criterion 2.11ai). The Coldham's Brook overflow ditch is likely to qualify under the linear water body criterion (2.13). Coldham's Brook is a CityWS in its own right under criterion 2.14.

SPECIES LISTS

Southern/eastern field, grassland

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Acer campestre</i>	Field Maple		r	WS
<i>Acer pseudoplatanus</i>	Sycamore	r	r	
<i>Achillea millefolium</i>	Yarrow		o	
<i>Agrostis stolonifera</i>	Creeping Bent	la	a	
<i>Alnus glutinosa</i>	Alder		r	WP
<i>Anthriscus sylvestris</i>	Cow Parsley		o	
<i>Arrhenatherum elatius</i>	False Oat-grass		f	
<i>Artemisia vulgaris</i>	Mugwort		r	
<i>Bellis perennis</i>	Daisy		lf	
<i>Bryonia dioica</i>	White Bryony		r	
<i>Carduus crispus</i>	Wetted Thistle		r	
<i>Carex hirta</i>	Hairy Sedge		lf	NG
<i>Carex riparia</i>	Great Pond-sedge		lf	
<i>Carpinus betulus</i>	Hornbeam		r	WP
<i>Chenopodium album</i>	Fat-hen		r	
<i>Cirsium arvense</i>	Creeping Thistle	o	f-la	
<i>Cirsium vulgare</i>	Spear Thistle	o	o	
<i>Conium maculatum</i>	Hemlock		lf	
<i>Convolvulus arvensis</i>	Field Bindweed		r	
<i>Crepis capillaris</i>	Smooth Hawk's-beard	r	r	
<i>Cynosorus cristatus</i>	Crested Dog's-tail		o	
<i>Dactylis glomerata</i>	Cock's-foot	f	f	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass		o	
<i>Festuca rubra</i> agg.	Red Fescue		o	
<i>Fraxinus excelsior</i>	Ash		o	
<i>Glechoma hederacea</i>	Ground-ivy	o		WP
<i>Glyceria</i> sp.	a sweet-grass		lf	
<i>Heracleum sphondylium</i>	Hogweed		o	
<i>Holcus lanatus</i>	Yorkshire-fog		f	
<i>Hordeum murinum</i>	Wall Barley	o	o	
<i>Hypochaeris radicata</i>	Cat's-ear	o		
<i>Juncus inflexus</i>	Hard Rush	o	o-lf	
<i>Lamium album</i>	White Dead-nettle		lf	
<i>Lolium perenne</i>	Perennial Rye-grass	a	f	
<i>Malva neglecta</i>	Dwarf Mallow		r	
<i>Malva sylvestris</i>	Common Mallow		r o	
<i>Medicago arabica</i>	Spotted Medick		lf	
<i>Persicaria maculosa</i>	Redshank		lf	
<i>Phalaris arundinacea</i>	Reed Canary-grass		o	
<i>Phleum bertolonii</i>	Smaller Cat's-tail	f		
<i>Phleum pratense</i>	Timothy	f	f	
<i>Picris echioides</i>	Bristly Oxtongue		o	
<i>Plantago lanceolata</i>	Ribwort Plantain		o	
<i>Plantago major</i>	Greater Plantain		o	
<i>Poa</i> sp.	a meadow-grass		f	
<i>Prunus spinosa</i>	Blackthorn		o	WS
<i>Ranunculus acris</i>	Meadow Buttercup		o-lf	
<i>Ranunculus repens</i>	Creeping Buttercup	f	o-lf	
<i>Rosa canina</i> agg.	Dog Rose		o	

Southern/eastern field, grassland (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Rubus fruticosus</i> agg.	Bramble		lf	WP
<i>Rumex conglomeratus</i>	Clustered Dock	o		
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Senecio jacobaea</i>	Common Ragwort	o	o	
<i>Stellaria media</i>	Common Chickweed	r	o	
<i>Taraxacum officinale</i> agg.	Dandelion	o	o-lf	
<i>Tilia x europaea</i>	Lime		r	
<i>Trifolium repens</i>	White Clover	f	f-la	
<i>Tripleurospermum inodorum</i>	Scentless Mayweed		r	
<i>Urtica dioica</i>	Common Nettle	o	o-la	

Northern field, grassland

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent	a	a	
<i>Anthriscus sylvestris</i>	Cow Parsley		o	
<i>Arctium minus</i>	Lesser Burdock		r	WP
<i>Arrhenatherum elatius</i>	False Oat-grass		f	
<i>Carex flacca</i>	Glaucous Sedge	o		NG*/CG*
<i>Carex hirta</i>	Hairy Sedge	o	lf	NG
<i>Carex riparia</i>	Great Pond-sedge		la	
<i>Cirsium arvense</i>	Creeping Thistle	o	f-la	
<i>Coronopus squamatus</i>	Swine-cress		o	
<i>Crepis capillaris</i>	Smooth Hawk's-beard		r	
<i>Dactylis glomerata</i>	Cock's-foot	f	f	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass		o	
<i>Elytrigia repens</i>	Common Couch		r	
<i>Festuca rubra</i> agg.	Red Fescue		o	
<i>Geranium molle</i>	Dove's-foot Crane's-bill		r	
<i>Glyceria</i> sp.	a sweet-grass		o	
<i>Hordeum murinum</i>	Wall Barley	o	r	
<i>Juncus inflexus</i>	Hard Rush	o	o-lf	
<i>Lamium purpureum</i>	Red Dead-nettle		r	
<i>Leontodon autumnalis</i>	Autumnal Hawkbit		r	
<i>Lolium perenne</i>	Perennial Rye-grass	a	f	
<i>Phleum bertolonii</i>	Smaller Cat's-tail		f	
<i>Phleum pratense</i>	Timothy		f	
<i>Plantago major</i>	Greater Plantain	o	lf	
<i>Poa</i> sp.	a meadow-grass		f	
<i>Ranunculus acris</i>	Meadow Buttercup		o	
<i>Ranunculus repens</i>	Creeping Buttercup		f	
<i>Rumex crispus</i>	Curled Dock		o	
<i>Rumex obtusifolius</i>	Broad-leaved Dock		r	
<i>Senecio jacobaea</i>	Common Ragwort		o	
<i>Stellaria media</i>	Common Chickweed		r	
<i>Taraxacum officinale</i> agg.	Dandelion	o	o-lf	
<i>Trifolium repens</i>	White Clover		f	
<i>Urtica dioica</i>	Common Nettle		o-lf	

Western field, grassland

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Achillea millefolium</i>	Yarrow		o	
<i>Agrostis stolonifera</i>	Creeping Bent	f	a	
<i>Anthriscus sylvestris</i>	Cow Parsley	o	o-lf	
<i>Arctium minus</i>	Lesser Burdock		o	WP
<i>Armoracia rusticana</i>	Horse-radish		o	
<i>Arrhenatherum elatius</i>	False Oat-grass		f	
<i>Bellis perennis</i>	Daisy		o	
<i>Carex flacca</i>	Glaucous Sedge	o		NG*/CG*
<i>Carex hirta</i>	Hairy Sedge		lf	NG
<i>Carex riparia</i>	Great Pond-sedge		f-la	
<i>Cirsium arvense</i>	Creeping Thistle	o	f-la	
<i>Cirsium vulgare</i>	Spear Thistle	o	o	
<i>Crataegus monogyna</i>	Hawthorn	o	r	WS
<i>Crepis capillaris</i>	Smooth Hawk's-beard	r	r	
<i>Dactylis glomerata</i>	Cock's-foot	f	f	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	f	f	
<i>Dipsacus fullonum</i>	Wild Teasel	r	r	
<i>Elytrigia repens</i>	Common Couch		o	
<i>Equisetum arvense</i>	Field Horsetail		r	
<i>Festuca rubra</i> agg.	Red Fescue		o	
<i>Fraxinus excelsior</i>	Ash	r	r	WS
<i>Galium aparine</i>	Cleavers		lf	
<i>Glechoma hederacea</i>	Ground-ivy		o	WP
<i>Glyceria maxima</i>	Reed Sweet-grass		o	
<i>Holcus lanatus</i>	Yorkshire-fog		p	
<i>Hordeum murinum</i>	Wall Barley	f	r	
<i>Hypochaeris radicata</i>	Cat's-ear		r	
<i>Juncus inflexus</i>	Hard Rush	o	o-lf	
<i>Linaria vulgaris</i>	Common Toadflax		r	
<i>Lolium perenne</i>	Perennial Rye-grass	a	f	
<i>Malva sylvestris</i>	Common Mallow		r	
<i>Persicaria maculosa</i>	Redshank		o	
<i>Phalaris arundinacea</i>	Reed Canary-grass	o		
<i>Phleum pratense</i>	Timothy		f	
<i>Plantago major</i>	Greater Plantain		lf	
<i>Poa</i> sp.	a meadow-grass		f	
<i>Prunus spinosa</i>	Blackthorn	r		WS
<i>Ranunculus acris</i>	Meadow Buttercup		o	
<i>Ranunculus repens</i>	Creeping Buttercup	f	f-la	
<i>Rosa canina</i> agg.	Dog Rose		o	
<i>Rubus fruticosus</i> agg.	Bramble	r	lf	WP
<i>Rumex acetosa</i>	Common Sorrel		r	NG
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Salix</i> sp.	a willow		o	
<i>Sambucus nigra</i>	Elder		r	WS
<i>Senecio jacobaea</i>	Common Ragwort	o	o	
<i>Stellaria media</i>	Common Chickweed	o	r	
<i>Taraxacum officinale</i> agg.	Dandelion	o	lf	
<i>Trifolium repens</i>	White Clover	f	f	
<i>Tussilago farfara</i>	Colt's-foot		r	
<i>Urtica dioica</i>	Common Nettle	o	lf	

South-western corner

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Acer pseudoplatanus</i>	Sycamore	o		
<i>Achillea millefolium</i>	Yarrow	lf		
<i>Agrimonia eupatoria</i>	Agrimony	o		NG/CG
<i>Agrostis sp.</i>	a bent-grass	lf		
<i>Anisantha sterilis</i>	Barren Brome		o	
<i>Anthriscus sylvestris</i>	Cow Parsley	lf	lf	
<i>Armoracia rusticana</i>	Horse-radish	lf		
<i>Arrhenatherum elatius</i>	False Oat-grass	ld	o	
<i>Artemisia vulgaris</i>	Mugwort	o		
<i>Aster sp.</i>	a michaelmas-daisy	o		
<i>Calystegia sepium</i>	Hedge Bindweed		f	
<i>Calystegia silvatica</i>	Large Bindweed	o		
<i>Centaurea nigra</i>	Common Knapweed	o		NG/CG
<i>Chamerion angustifolium</i>	Rosebay Willowherb	o		
<i>Cirsium arvense</i>	Creeping Thistle	lf	lf	
<i>Clematis vitalba</i>	Travellers'-joy	o		WP
<i>Convolvulus arvensis</i>	Field Bindweed	lf		
<i>Crataegus monogyna</i>	Hawthorn	ld	o	WS
<i>Dactylis glomerata</i>	Cock's-foot	lf	lf	
<i>Epilobium hirsutum</i>	Great Willowherb		lf	
<i>Equisetum arvense</i>	Field Horsetail		lf	
<i>Equisetum sp.</i>	a horsetail	o		
<i>Festuca rubra</i> agg.	Red Fescue	lf		
<i>Fraxinus excelsior</i>	Ash	o	o	WS
<i>Galium verum</i>	Lady's Bedstraw	o		NG/CG
<i>Glechoma hederacea</i>	Ground-ivy	o	o	WP
<i>Glyceria sp.</i>	a sweet-grass		o	
<i>Heracleum sphondylium</i>	Hogweed	o	r	
<i>Hordeum murinum</i>	Wall Barley		o	
<i>Juglans regia</i>	Walnut	o		
<i>Lactuca serriola</i>	Prickly Lettuce		r	
<i>Lamium album</i>	White Dead-nettle	o	o	
<i>Lathyrus pratensis</i>	Meadow Vetchling	o		NG
<i>Leucanthemum vulgare</i>	Oxeye Daisy	o		NG/CG
<i>Lolium perenne</i>	Perennial Rye-grass		lf	
<i>Lupinus polyphyllus</i>	Garden Lupin	o		
<i>Pastinaca sativa</i>	Wild Parsnip	o		CG
<i>Phleum pratense</i>	Timothy		o	
<i>Pimpinella saxifraga</i>	Burnet-saxifrage	o		NG/CG
<i>Poa pratensis sens. lat.</i>	Smooth Meadow-grass	lf		
<i>Poa sp.</i>	a meadow-grass		o	
<i>Potentilla reptans</i>	Creeping Cinquefoil	o		
<i>Prunus spinosa</i>	Blackthorn	ld	r	WS
<i>Rhamnus cathartica</i>	Buckthorn	r		WS
<i>Ribes rubrum</i>	Red Currant	r		WP
<i>Rosa canina</i> agg.	Dog Rose	o		
<i>Rubus caesius</i>	Dewberry	lf		WP
<i>Rubus fruticosus</i> agg.	Bramble	la	a	WP
<i>Rumex acetosa</i>	Common Sorrel	o		NG
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Rumex sanguineus</i>	Wood Dock	lf		WP
<i>Salix cinerea</i>	Grey Willow	r		WS

South-western corner

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Sambucus nigra</i>	Elder	o	r	WS
<i>Senecio erucifolius</i>	Hoary Ragwort	o		NG/CG
<i>Sisymbrium officinale</i>	Hedge Mustard		r	
<i>Solidago sp.</i>	a goldenrod	o		
<i>Taraxacum officinale agg.</i>	Dandelion		o	
<i>Torilis japonica</i>	Upright Hedge-parsley	o		
<i>Tragopogon pratensis</i>	Goat's-beard	o		
<i>Trifolium repens</i>	White Clover		lf	
<i>Ulmus procera</i>	English Elm	la	lf	WP
<i>Urtica dioica</i>	Common Nettle		a	

Southern/eastern field, scrub in southwest corner and southern hedgerow

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Acer campestre</i>	Field Maple	o		WS
<i>Crataegus monogyna</i>	Hawthorn	f-la	lf	WS
<i>Dactylis glomerata</i>	Cock's-foot	f		
<i>Fraxinus excelsior</i>	Ash	o	o	WS
<i>Hedera helix</i>	Ivy	f	o	WP
<i>Prunus avium</i>	Wild Cherry	r		WP
<i>Prunus spinosa</i>	Blackthorn	o		WS
<i>Rosa canina agg.</i>	Dog Rose	o	o	
<i>Rubus fruticosus agg.</i>	Bramble	f	o	WP
<i>Sambucus nigra</i>	Elder		o	WS
<i>Ulmus glabra</i>	Wych Elm	o		WP

Coldham's Brook and overflow drain, banks and in-channel vegetation

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Acer pseudoplatanus</i>	Sycamore		o	
<i>Agrostis stolonifera</i>	Creeping Bent		o	
<i>Alliaria petiolata</i>	Garlic Mustard	r		WP
<i>Anthriscus sylvestris</i>	Cow Parsley		o	
<i>Apium nodiflorum</i>	Fool's Water-cress	o		
<i>Callitriche sp.</i>	a water-starwort	o		
<i>Calystegia sepium</i>	Hedge Bindweed		o	
<i>Carex riparia</i>	Great Pond-sedge		la	
<i>Crataegus monogyna</i>	Hawthorn		o	WS
<i>Dipsacus fullonum</i>	Wild Teasel		r	
<i>Epilobium hirsutum</i>	Great Willowherb		f-la	
<i>Equisetum arvense</i>	Field Horsetail		o	
<i>Filipendula ulmaria</i>	Meadowsweet		o	
<i>Fraxinus excelsior</i>	Ash		o	WS
<i>Galium aparine</i>	Cleavers		o	
<i>Glyceria maxima</i>	Reed Swwet-grass		o	
<i>Hedera helix</i>	Ivy	o	lf	WP
<i>Heracleum sphondylium</i>	Hogweed	o	r	
<i>Humulus lupulus</i>	Hop		r	
<i>Impatiens glandulifera</i>	Indian Balsam		o	
<i>Lolium perenne</i>	Perennial Rye-grass		a	

Coldham's Brook and overflow drain, banks and in-channel vegetation (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Lycopus europaeus</i>	Gypsywort	r		
<i>Malus pumila</i>	Apple	r		
<i>Persicaria maculosa</i>	Redshank	o		
<i>Phragmites australis</i>	Common Reed	lf		
<i>Potentilla anserina</i>	Silverweed	r		
<i>Prunus spinosa</i>	Blackthorn	la		WS
<i>Quercus robur</i>	Pedunculate Oak	r		WS
<i>Ranunculus repens</i>	Creeping Buttercup	o		
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress	lf	r	
<i>Rosa canina</i> agg.	Dog Rose	r		
<i>Rubus caesius</i>	Dewberry	o		WP
<i>Rubus fruticosus</i> agg.	Bramble	f-la		WP
<i>Rumex obtusifolius</i>	Broad-leaved Dock	o		
<i>Salix</i> sp.	a willow	o		
<i>Sambucus nigra</i>	Elder	r	r	WS
<i>Solanum dulcamara</i>	Bittersweet	o		
<i>Solidago</i> sp.	a goldenrod	r		
<i>Sparganium erectum</i>	Branched Bur-reed	o		
<i>Symphytum officinale</i>	Common Comfrey	lf		
<i>Stachys palustris</i>	Marsh Woundwort	r		
<i>Ulmus</i> sp.	an elm	o		WP
<i>Urtica dioica</i>	Common Nettle	f	f-la	
<i>Veronica beccabunga</i>	Brooklime	o		

Western field, eastern drain

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Alisma plantago-aquatica</i>	Water-plantain	r		
<i>Apium nodiflorum</i>	Fool's Water-cress	f		
<i>Berula erecta</i>	Lesser Water-parsnip	o-lf		
<i>Carex hirta</i>	Hairy Sedge	r		NG
<i>Cirsium arvense</i>	Creeping Thistle	o		
<i>Epilobium hirsutum</i>	Great Willowherb	o		
<i>Epilobium parviflorum</i>	Hoary Willowherb	r		
<i>Glyceria maxima</i>	Reed Sweet-grass	la	a-ld	
<i>Juncus inflexus</i>	Hard Rush	o	f	
<i>Juncus subnodulosus</i>	Blunt-flowered Rush	r		
<i>Lemna minor</i>	Common Duckweed	o	o	
<i>Lycopus europaeus</i>	Gypsywort	o		
<i>Myosotis scorpioides</i>	Water Forget-me-not	o	o	
<i>Myriophyllum</i> sp.	a water-milfoil	o		
<i>Persicaria amphibia</i>	Amphibious Bistort	o		
<i>Phalaris arundinacea</i>	Reed Canary-grass	lf	o	
<i>Ranunculus repens</i>	Creeping Buttercup	lf		
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	f		
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress	o		
<i>Rumex obtusifolius</i>	Broad-leaved Dock	o		
<i>Sparganium erectum</i>	Branched Bur-reed	a	o	
<i>Typha latifolia</i>	Great Reedmace	o		
<i>Urtica dioica</i>	Common Nettle	o		
<i>Veronica beccabunga</i>	Brooklime	o		

Western field, south-eastern drain

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent		o	
<i>Alisma plantago-aquaticum</i>	Water-plantain		f	
<i>Berula erecta</i>	Lesser Water-parsnip		o-lf	
<i>Callitriche</i> sp.	a water-starwort		f	
<i>Carex acutiformis</i>	Lesser Pond-sedge	lf		
<i>Carex otrubae</i>	False Fox-sedge	o		
<i>Carex riparia</i>	Great Pond-sedge	f	f-la	
<i>Crataegus monogyna</i>	Hawthorn		o-lf	WS
<i>Dactylis glomerata</i>	Cock's-foot		f	
<i>Epilobium hirsutum</i>	Great Willowherb	o	o	
<i>Epilobium tetragonum</i>	Square-stalked Willowherb	r		
<i>Equisetum arvense</i>	Field Horsetail		r	
<i>Fraxinus excelsior</i>	Ash		o	WS
<i>Glyceria maxima</i>	Reed Sweet-grass	f	f-la	
<i>Glyceria</i> sp.	a sweet-grass		o	
<i>Hedera helix</i>	Ivy		o	WP
<i>Juncus inflexus</i>	Hard Rush	o	o	
<i>Lemna minor</i>	Common Duckweed	f	la	
<i>Lemna triscula</i>	Ivy-leaved Duckweed		la	
<i>Lycopus europaeus</i>	Gypsywort		o	
<i>Mentha aquatica</i>	Water Mint	o	o	
<i>Myriophyllum</i> sp.	a water-milfoil		o	
<i>Phalaris arundinacea</i>	Reed Canary-grass		o	
<i>Ranunculus repens</i>	Creeping Buttercup		lf	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	o		
<i>Ranunculus</i> sp.	a water-crowfoot		r	
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress		o	
<i>Rosa canina</i> agg.	Dog-rose		o	
<i>Rubus fruticosus</i> agg.	Bramble		lf	WP
<i>Salix</i> sp.	a willow		r	
<i>Sambucus nigra</i>	Elder		r	WS
<i>Scrophularia auriculata</i>	Water Figwort	o	r	
<i>Solanum dulcamara</i>	Bittersweet	o	r	
<i>Sparganium erectum</i>	Branched Bur-reed	lf	lf	
<i>Typha latifolia</i>	Great Reedmace	r	lf	
<i>Ulmus</i> sp.	an elm		r	WP
<i>Urtica dioica</i>	Common Nettle		o	
<i>Veronica anagallis-aquatica</i>	Blue Water-speedwell		r	
<i>Veronica beccabunga</i>	Brooklime	o	o	
<i>Zannichellia palustris</i>	Horned Pondweed		o	

Southern/eastern field, short dividing drain

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent		lf	
<i>Apium nodiflorum</i>	Fool's Water-cress	f		
<i>Berula erecta</i>	Lesser Water-parsnip		f	
<i>Carex riparia</i>	Greater Pond-sedge	f	f	
<i>Cirsium arvense</i>	Creeping Thistle		o	
<i>Epilobium parviflorum</i>	Hoary Willowherb		r	

Southern/eastern field, short dividing drain (continued)

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Glechoma hederacea</i>	Ground-ivy		o	WP
<i>Glyceria maxima</i>	Reed Sweet-grass	f	f	
<i>Juncus effusus</i>	Soft Rush	r		
<i>Juncus inflexus</i>	Hard Rush	f	f	
<i>Lemna minor</i>	Common Duckweed	o		
<i>Mentha aquatica</i>	Water Mint	o		
<i>Myosotis scorpioides</i>	Water Forget-me-not	r		
<i>Persicaria amphibia</i>	Amphibious Bistort	o		
<i>Persicaria maculosa</i>	Redshank		r	
<i>Ranunculus acris</i>	Meadow Buttercup		r	
<i>Ranunculus repens</i>	Creeping Buttercup		o	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	o		
<i>Ranunculus sp.</i>	a water-crowfoot		r	
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress		o	
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Scrophularia auriculata</i>	Water Figwort		f	
<i>Sparganium erectum</i>	Branched Bur-reed	f		
<i>Taraxacum officinale</i> agg.	Dandelion		r	
<i>Urtica dioica</i>	Common Nettle		r	
<i>Veronica beccabunga</i>	Brooklime	o	lf	

Southern/eastern field, northern boundary drains – central section

<i>Scientific name</i>	<i>Common name</i>	<i>Abundance</i>		<i>Status</i>
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent		lf	
<i>Apium nodiflorum</i>	Fool's Water-cress	f		
<i>Berula erecta</i>	Lesser Water-parsnip		o	
<i>Callitriche sp.</i>	a water-starwort		lf	
<i>Carex acutiformis</i>	Lesser Pond-sedge	lf		
<i>Carex riparia</i>	Great Pond-sedge	lf	lf-la	
<i>Chara sp.</i>	a stonewort		o	
<i>Crataegus monogyna</i>	Hawthorn		lf	WS
<i>Epilobium parviflorum</i>	Hoary Willowherb		r	
<i>Fraxinus excelsior</i>	Ash		lf	WS
<i>Glyceria maxima</i>	Reed Sweet-grass	a	lf	
<i>Hedera helix</i>	Ivy		lf	WP
<i>Juncus effusus</i>	Soft Rush	r		
<i>Juncus inflexus</i>	Hard Rush	o	lf	
<i>Lemna minor</i>	Common Duckweed	o		
<i>Myosotis scorpioides</i>	Water Forget-me-not	lf	lf	
<i>Myriophyllum spicatum</i>	Spiked Water-milfoil		la	
<i>Phalaris arundinacea</i>	Reed Canary-grass		o	
<i>Prunus spinosa</i>	Blackthorn		o	WS
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	o	lf	
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress		lf	
<i>Rubus fruticosus</i> agg.	Bramble		lf	WP
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Scrophularia auriculata</i>	Water Figwort	o	o	
<i>Sparganium erectum</i>	Branched Bur-reed	lf	o	
<i>Urtica dioica</i>	Common Nettle		lf	
<i>Veronica beccabunga</i>	Brooklime	o	o	

Northern field, southern drain

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent		o	
<i>Alisma plantago-aquatica</i>	Water-plantain	o	o	
<i>Apium nodiflorum</i>	Fool's Water-cress	f		
<i>Berula erecta</i>	Lesser Water-parsnip		o	
<i>Butomus umbellatus</i>	Flowering Rush	r		
<i>Callitriche sp.</i>	a water-starwort		o	
<i>Carex riparia</i>	Great Pond-sedge	a	f-la	
<i>Ceratophyllum demersum</i>	Rigid Hornwort	o		
<i>Chara sp.</i>	a stonewort		r	
<i>Cirsium arvense</i>	Creeping Thistle		o	
<i>Epilobium hirsutum</i>	Great Willowherb		r	
<i>Epilobium parviflorum</i>	Hoary Willowherb		r	
<i>Glyceria fluitans</i>	Floating Sweet-grass	o		
<i>Glyceria maxima</i>	Reed Sweet-grass	lf	f-la	
<i>Glyceria sp.</i>	a sweet-grass		o	
<i>Hippuris vulgaris</i>	Mare's-tail	o		
<i>Hottonia palustris</i>	Water-violet	r		
<i>Juncus inflexus</i>	Hard Rush	o	f	
<i>Lemna minor</i>	Common Duckweed	o	o	
<i>Lemna trisulca</i>	Ivy-leaved Duckweed	o		
<i>Lycopus europaeus</i>	Gipsywort	r	o	
<i>Myriophyllum spicatum</i>	Spiked Water-milfoil		la	
<i>Myriophyllum sp.</i>	a water-milfoil	f		
<i>Persicaria amphibia</i>	Amphibious Bistort	o	r	
<i>Phalaris arundinacea</i>	Reed Canary-grass		o	
<i>Ranunculus repens</i>	Creeping Buttercup		o	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	o	r	
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress		o	
<i>Scrophularia auriculata</i>	Water Figwort	o	o	
<i>Solanum dulcamara</i>	Bittersweet		r	
<i>Sparganium erectum</i>	Branched Bur-reed	o	f	
<i>Taraxacum officinale</i> agg.	Dandelion		r	
<i>Veronica beccabunga</i>	Brooklime	o		
<i>Zannichellia palustris</i>	Horned Pondweed		o	

Northern field, eastern drain

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Apium nodiflorum</i>	Fool's Water-cress	f		
<i>Berula erecta</i>	Lesser Water-parsnip		o	
<i>Callitriche sp.</i>	a water-starwort		o	
<i>Cardamine pratensis</i>	Cuckoo-flower	o		
<i>Carex acutiformis</i>	Lesser Pond-sedge	o		
<i>Carex riparia</i>	Greater Pond-sedge		f-la	
<i>Cirsium arvense</i>	Creeping Thistle		o	
<i>Glyceria maxima</i>	Reed Sweet-grass	f	f-la	
<i>Epilobium parviflorum</i>	Hoary Willowherb		r	
<i>Glyceria sp.</i>	a sweet-grass		lf	
<i>Juncus articulatus</i>	Jointed Rush	o		
<i>Juncus inflexus</i>	Hard Rush	o	f	

Northern field, eastern drain (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Lemna minor</i>	Common Duckweed	o		
<i>Lycopus europaeus</i>	Gipsywort	o	lf	
<i>Myriophyllum spicatum</i>	Spiked Water-milfoil		la	
<i>Persicaria amphibia</i>	Amphibious Bistort	o	r	
<i>Phalaris arundinacea</i>	Reed Canary-grass	f	o	
<i>Rorippa nasturtium-aquaticum</i> agg.	Water-cress		o	
<i>Ranunculus repens</i>	Creeping Buttercup		o	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	lf	o	
<i>Sparganium erectum</i>	Branched Bur-reed	f	f	
<i>Trifolium repens</i>	White Clover		o	
<i>Veronica beccabunga</i>	Brooklime	f	o	

d dominant
a abundant
f frequent
o occasional
r rare
l locally
p present

NG Weak indicator species, neutral grassland
CG Weak indicator species, calcareous grassland
NG/CG Weak indicator species, neutral and calcareous grassland
NG* Strong indicator species, neutral grassland
CG* Strong indicator species, calcareous grassland
NG*/CG* Strong indicator species, neutral and calcareous grassland

WP Woodland plant used for determining woodland value
WS Woody species for determining scrub or hedgerow value

Botanical scientific nomenclature follows Stace CA (1997) *New Flora of the British Isles* (2nd ed.) CUP.

Vertebrate fauna, entire site

<i>Scientific name</i>	Common name	Abundance	
		1998	2005
	medium-sized fish		8
<i>Aegithalos caudatus</i>	Long-tailed Tit	p	
<i>Anthus pratensis</i>	Meadow Pipit	p	2
<i>Ardea cinerea</i>	Grey Heron		1
<i>Carduelis carduelis</i>	Goldfinch		36
<i>Delichon urbica</i>	House Martin	p	
<i>Dendrocopos major</i>	Great Spotted Woodpecker	p	
<i>Gallinago gallinago</i>	Snipe		1
<i>Gallinula chloropus</i>	Moorhen		3
<i>Hirundo rustica</i>	Swallow	p	
<i>Motacilla cinerea</i>	Grey Wagtail		1
<i>Parus major</i>	Great Tit		1
<i>Picus viridis</i>	Green Woodpecker	p	
<i>Rallus aquaticus</i>	Water Rail	p	
<i>Rana temporaria</i>	Common Frog	p	1
<i>Sturnus vulgaris</i>	Starling		100+

Invertebrate fauna, entire site

<i>Scientific name</i>	Common name	Abundance	
		1998	2005
	anthills		1
<i>Aeshna cyanea</i>	Southern Hawker	p	
<i>Aeshna mixta</i>	Migrant Hawker		1
<i>Gerris lacustris</i>	Common Pondskater		p
<i>Lycaena phlaeas</i>	Small Copper	p	
<i>Sympetrum striolatum</i>	Common Darter	p	2
p	present		

SITE RECORD SHEET

SITE NAME: Stourbridge Common
Site code: G6.5
Grid ref: TL469598
Date of survey: 4/7/05, and other dates earlier in the year.
Surveyor: Steve Hartley

Habitat information

Code	Habitat type
A1.1.2	Woodland: broadleaved, plantation
A3.1	Parkland/scattered trees: broadleaved
B6	Grassland: poor semi-improved
F2.2	Marginal/inundation: inundation
G1	Open water: standing water

Site area:

17.76 ha

Site description

An area of cattle- and horse-grazed common land with planted trees, mostly scattered but also in blocks on the south side. The trees were not considered in detail in the present survey.

The main body of the sward still consists of a wide variety of grasses, with very few forbs other than weed species. The only frequent grassland indicator is Meadow Barley *Hordeum secalinum*, with Strawberry Clover *Trifolium fragiferum* locally frequent close to the river. The sward has recently deteriorated over large sections of this large site. Heavy poaching due to grazing in the exceptionally dry periods of the last two years permitted Creeping Thistle *Cirsium arvense*, Common Nettle *Urtica dioica* and other ruderal plants to become abundant over large areas of the site, before it was topped in the spring. Ground disturbance over much of the west end, due to electric cable laying last winter, exacerbated the problem. The topping has reduced the abundance of pernicious weeds but they remain a severe problem and will need treating for several years.

Several small, low-lying and wet, areas are apparent within the grassland, especially close to the track leading to the railway bridge; some have standing water. They have an inundation or wet grassland community, with frequent Hairy Sedge *Carex hirta* and rare Round-fruited Rush *Juncus compressus*. A larger area, on the south side of the site, has ankle-deep water and is mostly surrounded by broadleaved trees. This set of wetter areas includes some not found in the last survey, and not all those found in the last survey were apparent at the time of the present survey.

The site is a good bat feeding area, especially around the trees where Pipistrelles *Pipistrellus sp.* are regularly seen. The site is used by numerous birds, wintering and

breeding. Occasional Snipe *Gallinago gallinago* visit, especially in spring and autumn; the secluded southern wet area is a potential feeding ground. A flock of 33 Meadow Pipit *Anthus pratensis* were seen last winter, and 8 males held territories this spring; some were singing during the survey.

Site assessment

The site qualifies as a City Wildlife Site under criterion 2.17, an area of undeveloped floodplain directly associated with the River Cam County Wildlife Site.

SPECIES LISTS

Main body of grassland

Scientific name	Common name	Abundance		Status
		1998	2005	
<i>Achillea millefolium</i>	Yarrow		o	
<i>Agrostis stolonifera</i>	Creeping Bent	f	f-la	
<i>Alopecurus pratensis</i>	Meadow Foxtail	f	o	
<i>Angelica sylvestris</i>	Wild Angelica		o	
<i>Anisantha sterilis</i>	Barren Brome		r	
<i>Arctium minus</i>	Lesser Burdock		r	WP
<i>Arrhenatherum elatius</i>	False Oat-frass	f	lf	
<i>Ballota nigra</i>	Black Horehound		r	
<i>Calystegia sepium</i>	Hedge Bindweed		r	
<i>Capsella bursa-pastoris</i>	Shepherd's-purse		r	
<i>Cardamine pratensis</i>	Lady's Smock		r	NG
<i>Carduus nutans</i>	Musk Thistle		o-lf	
<i>Carex hirta</i>	Hairy Sedge	r	r	NG
<i>Cirsium arvense</i>	Creeping Thistle		f-la	
<i>Cirsium vulgare</i>	Spear Thistle		o	
<i>Conium maculatum</i>	Hemlock		r	
<i>Crepis vesicaria</i>	Beaked Hawk's-beard		r	
<i>Cynosurus cristatus</i>	Crested Dog's-tail	f	o-lf	
<i>Dactylis glomerata</i>	Cock's-foot	f	o	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	f	o	
<i>Elytrigia repens</i>	Common Couch		lf	
<i>Epilobium hirsutum</i>	Great Willowherb		r	
<i>Festuca arundinacea</i>	Tall Fescue	f	o-lf	
<i>Festuca rubra</i>	Red Fescue	f		
<i>Galium aparine</i>	Cleavers		r	
<i>Glyceria maxima</i>	Reed Sweet-grass		r	
<i>Holcus lanatus</i>	Yorkshire-fog	f	f-la	
<i>Hordeum murinum</i>	Wall Barley		lf-la	
<i>Hordeum secalinum</i>	Meadow Barley		o-lf	NG
<i>Lactuca serriola</i>	Prickly Lettuce		r	
<i>Lapsana communis</i>	Nipplewort		r	WP
<i>Lolium perenne</i>	Perennial Rye-grass	f	f	
<i>Lotus corniculatus</i>	Bird's-foot Trefoil		r	NG/CG
<i>Lycopus europaeus</i>	Gypsywort		r	
<i>Lythrum salicaria</i>	Purple-loosestrife		r	
<i>Malva sylvestris</i>	Common Mallow		o	
<i>Matricaria discoidea</i>	Pineappleweed		o	

Main body of grassland (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Mycelis muralis</i>	Wall Lettuce		r	
<i>Ononis spinosa</i>	Spiny Restharrow	r		NG/CG
<i>Phleum pratense</i>	Timothy	f	f	
<i>Picris echioides</i>	Bristly Ox-tongue		r	
<i>Plantago lanceolata</i>	Ribwort Plantain		o	
<i>Plantago major</i>	Great Plantain		o	
<i>Polygonum aviculare</i>	Knotgrass		r	
<i>Potentilla anserina</i>	Silverweed		o	
<i>Potentilla reptans</i>	Creeping Cinquefoil		o	
<i>Prunella vulgaris</i>	Selfheal		r	WP
<i>Ranunculus acris</i>	Meadow Buttercup		f	
<i>Rubus fruticosus</i> agg.	Bramble		o-lf	WP
<i>Rumex obtusifolius</i>	Broad-leaved Dock		o	
<i>Senecio jacobaea</i>	Common Ragwort		o	
<i>Sonchus arvensis</i>	Perennial Sow-thistle		r	
<i>Sonchus asper</i>	Prickly Sow-thistle		r	
<i>Sonchus oleraceus</i>	Smooth Sow-thistle		r	
<i>Stellaria media</i>	Common Chickweed		o	
<i>Taraxacum officinale</i> agg.	Dandelion		o	
<i>Trifolium fragiferum</i>	Strawberry Clover		lf	NG
<i>Trifolium repens</i>	White Clover		o-lf	
<i>Tripleurospermum maritimum</i>	Scentless Mayweed		r	
<i>Urtica dioica</i>	Stinging Nettle		o-la	

Low-lying and wet areas and banks of Coldham's Brook

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Agrostis stolonifera</i>	Creeping Bent	a	f	
<i>Alopecurus geniculatus</i>	Marsh Foxtail		f	
<i>Apium nodiflorum</i>	Fool's Water-cress		r	
<i>Bellis perennis</i>	Daisy	r		
<i>Carex hirta</i>	Hairy Sedge		lf	NG
<i>Cirsium arvense</i>	Creeping Thistle	o		
<i>Coronopus squamatus</i>	Swine-cress	r		
<i>Cynosurus cristatus</i>	Crested Dog's-tail	f		
<i>Dactylis glomerata</i>	Cock's-foot	o		
<i>Festuca rubra</i>	Red Fescue	f		
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	r		
<i>Glyceria fluitans</i>	Floating Sweet-grass		o	
<i>Holcus lanatus</i>	Yorkshire-fog	f		
<i>Juncus articulatus</i>	Jointed Rush		o	
<i>Juncus compressus</i>	Round-fruited Rush		r	NG
<i>Juncus inflexus</i>	Hard Rush		r	
<i>Lolium perenne</i>	Perennial Rye-grass	a		
<i>Phleum bertolonii</i>	Smaller Cat's-tail	r		
<i>Plantago lanceolata</i>	Ribwort Plantain	o		
<i>Plantago major</i>	Greater Plantain	o	o	
<i>Poa annua</i>	Annual Meadow-grass	f		
<i>Potentilla anserina</i>	Silverweed	lf	lf	
<i>Ranunculus repens</i>	Creeping Buttercup	f	lf	

Low-lying and wet areas and banks of Coldham's Brook (continued)

<i>Scientific name</i>	Common name	Abundance		Status
		1998	2005	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	r		
<i>Rorippa nasturtium-aquaticum</i>	Water-cress		r	
<i>Rumex crispus</i>	Curled Dock	r		
<i>Rumex obtusifolius</i>	Broad-leaved Dock		la	
<i>Taraxacum officinale</i> agg.	Dandelion	o		
<i>Trifolium repens</i>	White Clover	o		
<i>Tussilago farfara</i>	Colt's-foot		r	
<i>Veronica beccabunga</i>	Brooklime		r	

Key:

a	abundant
f	frequent
o	occasional
r	rare
l	locally

NG	Weak indicator species, neutral grassland
CG	Weak indicator species, calcareous grassland
NG/CG	Weak indicator species, neutral and calcareous grassland
NG*	Strong indicator species, neutral grassland
CG*	Strong indicator species, calcareous grassland
NG*/CG*	Strong indicator species, neutral and calcareous grassland

WP Woodland plant used for determining woodland value

Botanical scientific nomenclature follows Stace CA (1997) *New Flora of the British Isles* (2nd ed.) CUP.**Vertebrate fauna**

<i>Scientific name</i>	Common name	Observation	
		1998	2005
<i>Alauda arvensis</i>	Skylark	present	
<i>Anthus pratensis</i>	Meadow Pipit	present	2 ¹ , 8 singing males ³ , 33 winter ³
<i>Carduelis carduelis</i>	Goldfinch	10	occasional ²
<i>Passer domesticus</i>	House Sparrow		10 ¹
<i>Delichon urbica</i>	House Martin		10 ¹
<i>Gallinago gallinago</i>	Snipe		occasional ^{2,3}
<i>Larus ridibundus</i>	Black-headed Gull		winter ²
<i>Larus canus</i>	Common Gull		30 winter ³
<i>Hirundo rustica</i>	Swallow		feeding ^{2,3}
<i>Parus caeruleus</i>	Blue Tit		1 ¹
<i>Sylvia atricapilla</i>	Blackcap		2 ¹
<i>Turdus merula</i>	Blackbird		1 ¹
<i>Sturnus vulgaris</i>	Starling		frequent feeders ^{2,3}
<i>Rana temporaria</i>	Common Frog		pair in amplexus ³
<i>Pipistrellus spp.</i>	pipistrelle bats		around trees ³

1 Present survey

2 Steve Hartley, observed in last 12 months

3 Reported by Ian Webb (abundances in last 12 months)

Invertebrate fauna

Scientific name	Common name	Observation	
		1998	2005
<i>Pieris rapae</i>	Small White Butterfly		1
<i>Maniola jurtina</i>	Meadow Brown Butterfly		6
<i>Tyria jacobaeae</i>	Cinnabar Moth		1
<i>Coccinella septempunctata</i>	7-spot Ladybird		1
<i>Chorthippus parallelus</i>	Meadow Grasshopper		abundant ¹
<i>Chorthippus albomarginatus</i>	Lesser Marsh Grasshopper		abundant ¹
<i>Metriopectera roeseli</i>	Roesel's Bush-cricket		occasional ¹

¹ Steve Hartley, observed in previous summers