

MANAGEMENT PLAN 2003-2013

BRAMBLEFIELDS

Cambridge City Council

David Barr
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1 DESCRIPTION

1.1 General information

1.1.1 Location

Site name:	Bramblefields		
Site status:	Proposed Local Nature Reserve		
County:	Cambridgeshire		
District:	East Chesterton		
Planning Authority:	Cambridge City Council		
Area:	2.09 hectares		
Grid Reference:	TL 472606		
O.S. maps:	1:50 000	OS sheet 154	1:10 000

1.1.2 Summary Description

Bramblefields is a mixture of scrub and grassland on the north-eastern perimeter of Cambridge. It is in a residential area, surrounded on three sides by a recent housing development and a primary school. To the north-east, it is bounded by allotment gardens and the now disused East Chesterton railway sidings, an important City Wildlife Site, and wildlife corridor.

The scrub, grassland mosaic is a relatively recent habitat, which has developed with little interference since the land was abandoned as allotments. The main southern section together with a much larger area now developed, is shown as allotments on a map dating from 1951. A later map from 1971 shows the allotments in their present position but including the triangular area of the site, and a large area to the west, which has also been developed. At some point later, the triangular section was abandoned and allowed to return to semi-natural habitat.

Archive maps show that throughout the first half of the 20th century, the whole region was fen and farmland. This site was bordered by drainage ditches and most likely a grazing meadow sloping down to the railway line.

The site lies on a bed of second terrace alluvial deposits from the nearby River Cam. There is therefore no chalk grassland interest here. It is low lying and has only a very slight gradient sloping down towards the railway line and eventually the river in the east.

The triangular section is therefore very wet and the grassland it contains is seasonally flooded. The scrub and semi-natural woodland in the wetter areas is dominated by

water loving Willow *Salix* species and in the drier areas, by Hawthorn *Crataegus monogyna*. The grassland contains some inundation species such as Water Mint *Mentha aquatica*, Hard Rush *Juncus inflexus*, Common Reedmace *Typha latifolia* and Hairy Sedge *Carex hirta*. It is dominated on the whole by Rough Meadow-grass *Poa trivialis*, False Oat-grass *Arrhenatherum elatius* and Yorkshire Fog *Holcus lanatus*. There is one neutral grassland indicator recorded, Meadow Vetchling *Lathyrus pratensis*.

The scrub in the remainder of the site is dominated by either Hawthorn *Crataegus monogyna* or Brambles *Rubus fruticosus*. The grassland is dominated by Cocksfoot *Dactylis glomerata*, False Oat-grass *Arrhenatherum elatius* and Rough Meadow-grass *Poa trivialis*, with Perennial Rye-grass *Lolium perenne* on the main paths. Some of the grassland has been seeded with grassland species such as Crested Dog's-tail *Cynosurus cristatus*, Black Knapweed, *Centaurea nigra*, Oxeye Daisy *Leucanthemum vulgare* and Sainfoin *Onobrychis viciifolia*.

There are planted trees and bushes around the perimeter of the site, especially near the housing. The most notable area is a Cherry *Prunus* plantation woodland in the west.

There is a well-constructed pond in the north-east corner of the main section, with gently sloping edges. The dominant species are Jointed Rush *Juncus articulatus* and Branched Bur-reed *Sparganium erectum*, although the latter along with several other pond species has been introduced. The pond has not been surveyed for amphibians.

The site is an important refuge for breeding and wintering birds, with Nightingale *Luscinia megarhynchos*, Linnet *Acanthis cannabina*, Turtle Dove *Streptopelia turtur* and Woodcock *Scolopax rusticola* recorded as well as a variety of finches, tits, thrushes and warblers.

The site is likely to be of value to many invertebrates with many good nectar sources and varied cover and habitat. There has not been any surveying carried out, but the neighbouring railway sidings are known to be of great importance at least for butterflies.

The public area of the site is popular with local residents and includes a children's play area. The tarmac path through it is part of a recognised cycle route and is also used by the disabled. The site in general is frequently used by many dog walkers and also for some disruptive activities such as burning rubbish and riding motorbikes. There is great potential for education with a school in very close proximity. This could possibly reduce the effects of vandalism and disruptive behaviour.

1.1.3 Land Tenure

Cambridge City Council owns the site.

2 EVALUATION AND OBJECTIVES

2.2 Evaluation of features

2.2.1 Criteria for evaluation

Size

At a size of 2.09 hectares, this site is small. However, in the north of the city, there is very little semi-natural habitat of any description, and a site of this size takes on greatly increased importance.

Diversity

The site includes semi-improved grassland (with one neutral grassland indicator species, Meadow Vetchling, *Lathyrus pratensis*), small areas of seasonally flooded grassland, tall herb communities, dense scrub, small areas of semi-natural fen woodland and broad-leaved plantation woodland. There is also a pond and its associated marginal vegetation.

Naturalness

Succession has proceeded more or less naturally, leading to a predominance of Hawthorn *Crataegus monogyna* scrub and brambles. There has been some planting of wildflowers and trees especially around the edges. A pond has been constructed, although this does occupy a pre-existing pond site, and species have also been introduced here, including some unlikely to occur naturally (e.g. Galingale *Cyperus longus*).

Rarity

Semi-natural habitat is rare in North Cambridge, and there is a need to protect what little remains.

There are no species of great rarity, but the site does contain plant species which are rare within the city boundary. These include Hairy Sedge *Carex hirta*, Water Mint *Mentha aquatica* and Blackcurrant *Ribes nigrum* (possibly an escape from allotment). Other locally scarce plant species have been seeded, such as Yellow Iris *Iris pseudocorus* and other pond vegetation. The site is good for insects with valuable nectar sources for bees and butterflies. A full invertebrate survey may reveal some important species. It is also a useful site for breeding birds with records of Turtle Dove *Streptopelia turtur*, Song Thrush *Turdus philomelos*, Linnets *Acanthis cannabina* and Bullfinch *Pyrrhula pyrrhula* (all declining Biodiversity Action Plan species). Along with the House Sparrow *Passer domesticus*, which are also present here, all the aforementioned species are red-listed by the British Trust for Ornithology, reflecting large and rapid declines, and defined as being of high conservation concern. Nightingales *Luscinia megarhynchos*, Willow Warbler *Phylloscopus trochilus*, Goldcrest *Regulus regulus*, and Woodcock *Scolopax rusticola* are amber-listed, defined as of medium conservation concern, reflecting less severe but still worrying declines. There are targets in place, set up by the government to try and reverse these rapid declines. As a result, Cambridgeshire County Council has set

up a Species Action Plan for the Song Thrush, *Turdus philomelos* and Bramblefields has a role to play in this respect. The Goldcrest and Woodcock were recorded in winter and may not be breeding here, however, even winter visiting Woodcock are very scarce in Cambridge. Goldfinch *Carduelis carduelis*, Lesser Whitethroat *Sylvia curruca*, Chiffchaff *Phylloscopus collybita*, Blackcap *Sylvia atricapilla* and Sedge Warbler *Acrocephalus schoenobaenus* have also been recorded. Goldfinches have recently been removed from the amber list, as their numbers seem to have stabilised. However, this variety of species is very important within the city boundary, Sedge Warblers in particular having little suitable habitat. There are high numbers of finches *Fringillidae* and tits *Paridae* in winter.

Fragility

The fragility of the site is mainly due to the intense pressure for new housing development in Cambridge. Indeed, recent development has already greatly reduced its size and importance. There is also some risk of damage from vandalism.

Typicalness

The site is typical of a successional scrub/grassland mosaic.

Recorded history

There is very little recorded history available for this site. Most of the botanical interest in the area has focused on the adjacent railway sidings. Site survey reports are held at the local Wildlife Trust offices and Cambridge City Council offices. Archive maps are available at Cambridge Central Library.

Position in an ecological unit

The site is bordered in the north-east by the old railway sidings, which are part of an important wildlife corridor, and are noted for nationally rare plant species and a wide variety of butterfly species. These butterflies and other invertebrates as well as breeding birds and roosting winter birds would certainly benefit from the food sources in Bramblefields.

Potential value

With good management, the diversity of the grassland can be increased, and the age structure of the scrub developed. This will increase the potential value of the site for a greater diversity of species, especially invertebrates, as well as small mammals and birds.

The site also has potential value for education, as there is a school very close to it. There are opportunities for pond dipping and educational countryside walks on the doorstep of an urban school – a “breath of fresh air” for teacher and pupil alike!

Intrinsic appeal

The site is obviously very appealing to dog walkers in the area, and is part of a scenic cycle route or walk, to the river. It has a natural feel to it, is rich in birdsong in

summer, and has good displays of wild flowers and Hawthorn and cherry blossom. There are blackberries to pick and eat, and there is a playground in nice surroundings for children and their parents. It is a fun place for children to play, and is a valuable resource for the local community. It is important to encourage local use and appreciation of the site to prevent it from being damaged by disruptive behaviour, and losing its intrinsic appeal by noisy mopeds and smelly fires.

2.2.2 Identification/confirmation of important features

Site features	Importance		
	National	Regional	Local
1 Vegetation types: semi-improved grassland dense scrub semi-natural woodland pond and marginal Seasonally flooded grassland			HIGH HIGH HIGH HIGH HIGH
2 Species: Vascular plants: Hairy Sedge <i>Carex hirta</i> Water Mint <i>Mentha aquatica</i> Blackcurrant <i>Ribes nigrum</i> Invertebrates: Birds: Nightingale <i>Luscinia megarhynchos</i> Turtle Dove <i>Streptopelia turtur</i> Linnet <i>Acanthis cannabina</i> Bullfinch <i>Pyrrhula pyrrhula</i> Song Thrush <i>Turdus philomelos</i> House Sparrow <i>Passer domesticus</i> Willow Warbler <i>Phylloscopus trochilus</i> Goldcrest <i>Regulus regulus</i> Woodcock <i>Scolopax rusticola</i> Sedge Warbler <i>Acrocephalus schoenobaenus</i>			HIGH HIGH AVERAGE AVERAGE, Possibly high, pending survey HIGH HIGH HIGH HIGH HIGH HIGH AVERAGE AVERAGE HIGH AVERAGE HIGH

2.2.5 Ideal management objectives

- 1 To maintain and enhance the diversity of the grassland
- 2 To maintain and enhance the scrub habitat
- 3 To maintain and enhance pond habitat
- 4 To maintain access and paths through the site
- 5 To maintain and enhance the public's appreciation of the site

2.4 Operational objectives and management options

2.4.1 Rationale

As this is a small site it should be possible to meet all the ideal management objectives. The only possible area of conflict is between public appreciation and nature conservation. There have been problems with youths in the area, which have made some residents feel uneasy about visiting the site. Some of their behaviour has also been disruptive to wildlife. However, it is hoped that sensitive conservation management and engagement of the local school will alleviate this problem and make the site more appealing to the public at large and less appealing for disruptive behaviour, without compromising its value to wildlife.

There is also a problem with dog excrement and whilst tackling this may decrease the appreciation of the site for some dog owners, it will greatly increase it for everyone else.

Management at Bramblefields can help play a small part in meeting the targets of the local Biodiversity, Species and Habitat Action Plans. These include scrub, especially in a mosaic with grassland, urban habitats, damp woodland, allotments, and the Song Thrush, *Turdus philomelos*, all of which are present here.

2.4.2 Identification of operational objectives, and selection of management options and outline prescriptions

Operational objective 1: To maintain and enhance the diversity of the grassland.

Management option: Habitat management option A3, active management.

Outline prescription:

The main objectives here are to prevent scrub from encroaching on grassland and to remove scrub from the edges, where it has recently encroached. It is also necessary to have a varied cutting regime for the grassland areas to develop a layered structure and hence a greater diversity of habitats suitable for different invertebrates and possibly small mammals.

1. Conduct invertebrate survey

2. Cut scrub from the edges of grassland areas especially to the south of the scrubby areas where there is good light and grassland can recover. The cuttings should be chipped and removed from the site, as fires are not appropriate here. Some of this work was carried out by the City Greenways Project volunteers on the fourth of February 2003.

The large bramble patch in the south-east corner (to the north of the path) should be reduced by a third and kept to this size by annual cuts. Wherever there are large areas of brambles near the path in the east, bays should be cut into them 2-3 metres deep. These cuts should be repeated annually north of the central east-west path and biennially to the south (Leave the Silver Birch *Betula pendula* and Yew *Taxus baccata* see map).

The edges of the scrub encroaching from the southern and eastern edges should be controlled every two years.

In the triangle area, the invading and suckering Sallows should be cut back from the grassland and half of the willow-herb *Epilobium hirsutum*, cut annually with a brushcutter. This area of inundation grassland has great potential for wading birds such as Snipe *Gallinago gallinago* and Woodcock *Scolopax rusticola*, especially since there is no public access.

3. The large grassland area in the centre of the main site should be cut on a three year cycle from the east-west central path outwards (see map). Tussocky areas near the southern path must be left uncut as they create a good micro-habitat for invertebrates.

4. The Goldenrod, *Solidago virgaurea*, is already invading and should be controlled by hand-pulling. The Rosebay Willowherb, *Chamaenerion angustifolium*, is also an invasive species. At present it only covers a small area and is an attractive species, however, it should be watched and prevented from invading too vigorously.

Operational objective 2: To maintain and enhance the scrub habitat.

Management option: Habitat management option A3, active management.

Outline prescription:

The main objective here is to layer the scrub habitat. The easiest way to do this is by coppicing the edges (see map). This will create a denser, lower level of growth at the edges, which is much more useful habitat for birds, invertebrates and small mammals. Cut wood should be chipped and removed from the site.

1. Coppice the southern edges of all the mature Hawthorn *Crataegus monogyna* areas to a depth of two bushes.
2. Coppice the northern edges of these areas where they border paths to a depth of one bush.
3. Pollard the southern edges two to three bushes in from the coppice line to vary the height of the canopy, which at present is very uniform.
4. Remove some of the bramble *Rubus fruticosus* undergrowth to improve visibility through the scrub, as some residents have expressed safety concerns over this.

Operational objective 3: To maintain and enhance the pond habitat.

Management option: Habitat management A2, Limited intervention

Outline prescription:

The pond requires little management at present. The shape of the pond lends itself very well to a variety of surrounding vegetation, with tall emergents in the gently sloping south and east margin and short grasses to the steeper west and north.

1. Conduct survey for amphibians and pond invertebrates.
2. Keep free of rubbish.
3. When vegetation covers more than a third of the area, it should be cleared.
4. Maintain the piling next to the path in the west to prevent in-fill from the path, to mark the edge, and to allow a good vantage point and platform for pond dipping.
5. Keep the area of the pond adjacent to the piling clear for pond dipping.

Operational objective 4: To maintain access and paths through the site.

Management option: Access management triangle area, E1 no access; main area, E4 open access

Outline prescription:

The triangular area was originally closed off because of residents' fears of damage to their property. This was due to the lighting of fires close to their back garden fences. This is still a concern and the area should remain closed to public access. Having the area closed is also highly beneficial to wildlife, allowing a useful area of dense scrub and inundation grassland to remain relatively free of disturbance from people and dogs. It will therefore be more suitable for breeding birds such as the Nightingale *Luscinia megarhynchos*, winter visiting wading birds and invertebrates.

1. Keep all paths open with regular mowing. The tarmac path is currently in good condition and allows disabled access through the site between all the adjoining streets. The circular path should be maintained as it is and the well-worn short cut from the gate in the east should be opened up.
2. Keep benches free of overhanging branches and encroaching brambles.
3. Maintain fences and hedges, in particular, the fence and gate closing off the triangular section.

Operational objective 5: To maintain and enhance the public's appreciation of the site.

Management option: Education and interpretation management option D3, active publicity.

Outline prescription:

1. Provide more bins for dog waste and bag dispensers, at least one at each entrance to the site, and someone appointed to clear up the remainder. Provide a sign requesting owners to clean up their dog's mess.
2. Keep site clear of rubbish when necessary. A clean up is planned before the open day on 27th March 2003.
3. Contact should be made with the local school, for example, with the City Greenways Project or Wildlife Liaison Officer to organise educational walks and pond dipping for the children.
4. Continue the City Greenways Project volunteer work parties at the site at least annually.
5. Provide new, larger information boards at each entrance to the site, explaining its importance to wildlife and the reasons for the management carried out.
6. Provide a new legal warning sign at each entrance. At present, there is one, which is barely legible and hardly visible. They should read, "No riding of motorcycles or horses. No dumping of rubbish." If the site is declared a Local Nature Reserve, a by-law could be introduced to ban fires, and this could be added to the sign. However, it may be difficult to enforce.
7. Continue the present level of community police patrols.

Operational objective 6: To declare the site a Local Nature Reserve.

Cambridge City Council is hoping to declare the site a Local Nature Reserve. It is certainly an important semi-natural habitat in this built up area, and close to the wildlife corridor. An official declaration would afford it some protection and improve its status amongst residents and visitors. It would provide funding for management, thus improving its condition for wildlife and increasing appreciation by the local residents. As stated above, it would also enable by-laws to be introduced if it were deemed necessary.

3 PRESCRIPTION

3.1 Projects

3.1.1 Project groups

Operational objective 1: to maintain and enhance the diversity of the grassland	
Outline prescription	Project group
1 Conduct invertebrate survey	RA82/01
2 Scrub control	MH14/01, MH52/01
3 Mowing/brushcutting	MH12/01, MH53/01
4 Control of <i>Solidago virgaurea</i> , <i>Chamaenaerion angustifolia</i> and <i>Epilobium hirsutum</i>	MS10/01
Operational objective 2: to maintain and enhance the scrub habitat	
Outline prescription	Project group
1&2 Coppice <i>Crataegus monogyna</i>	MH00/01
3 Pollard <i>Crataegus monogyna</i>	MH09/01
4 Thin out <i>Rubus fruticosus</i>	MH07/01
Operational objective 3: to maintain and enhance the pond habitat	
Outline prescription	Project group
1 Survey amphibians and invertebrates	RA22/01, RA82/02
2 Remove rubbish	ME40/01
3 Clear excessive vegetation	MH64/01
4 Maintain piling	ME30
5 Keep pond clear next to piling	MH64/02
Operational objective 4: to maintain access and paths through the site	
Outline prescription	Project group
1 Keep all paths open	MA05/01
2 Keep benches free of overhanging vegetation	MA01/01
3 Maintain fences and hedges	ME10/01
Operational objective 5: to maintain and enhance the public's appreciation of the site	
Outline prescription	Project group
1 Provide dog bins and bag dispensers Provide a sign.	ME20/01
2 Remove rubbish	ME40/02
3 Implement educational projects with local school	ML50/01
4 Hold volunteer work parties	AT60/01
5 Update information boards	M150/01
6 Provide new legal warning signs	M110/01
7 Maintain community police patrols	MP00/01
Operational objective 6: to declare the site a Local Nature Reserve	
1 Declare LNR status	AA30

3.1.2 Project register and description

Projects	Description
Records	
RA22/01	Collect data, herptiles, survey. Survey pond for amphibians.
RA82/01 RA82/02	Collect data, other/general invertebrates, survey. Pond dipping for invertebrates and general invertebrate surveys of the grassland areas.
Wardening-information	
MI10/01	Inform visitors, general. Provide new legal warning signs.
MI50/01	Provide interpretive material. Update the information boards.
Wardening-liaison	
ML50/01	Liaise, local community/groups. Implement contact between the local school and the City Greenways Project and other groups to organise pond dipping and educational nature walks, etc.
Wardening-patrol	
MP00/01	Protect site/species by patrol. Maintain community police patrol.
Management	
MH00/01	Manage habitat, woodland-scrub, by coppicing. Coppice the <i>Crataegus monogyna</i> at the edges of the scrub.
MH07/01	Manage habitat, woodland-scrub, by scrub control. Thin out the <i>Rubus fruticosus</i> understorey.
MH09/01	Manage habitat, woodland-scrub, by other activities. Pollard the <i>Crataegus monogyna</i> adjacent to the coppiced edges.
MH12/01	Manage habitat, grassland, by mowing/brushcutting. Layer grassland. Provide varied invertebrate habitats. Leave tussocky areas uncut.
MH14/01	Manage habitat, grassland, by scrub control. Prevent loss of grassland by encroachment of scrub. Cut back scrub at the grassland/woodland interface.
MH52/01	Manage habitat, inundation, by scrub clearance. Remove encroaching <i>Salix</i> species from the inundation grassland.
MH53/01	Manage habitat, inundation, by brushcutting. Cut half the grassland annually.
MH64/01 MH64/02	Manage habitat, open water, by clearing Clear excess vegetation from the pond when it covers more than one third of the area. Keep area of pond near the piling clear.
MA 01/01	Manage habitat, artificial, by selective cutting Keep benches clear of overhanging and adjacent vegetation.
MA05/01	Manage habitat, artificial, by path maintenance. Keep all paths open by regular mowing and cutting back of vegetation.
Species manipulation	

MS10/01	Manage species, other vascular plant. Control <i>Solidago virgauria</i> by hand-pulling before it seeds. Monitor spread of <i>Chamaenaerion angustifolia</i> and control if it encroaches onto the remaining grassland.
MS40/01	Manage species, bird. Provide information to adjacent allotment holders to try and prevent the use of toxic molluscicides, (slug pellets), to protect the Song Thrush <i>Turdus philomelos</i>
Estate-fabric work	
ME10/01	Protect site by maintaining boundary structures
ME20/01	Equip site by providing other structures. Provide extra dog bins and bag dispensers Provide a sign requesting owners to clean up their dog's mess.
ME30/01	Equip site by maintaining other structures. Maintain piling at the edge of the pond near the path.
ME40/01 ME40/02	Maintain site by removing rubbish, from pond Maintain site by removing rubbish, generally.
Acquisition/declaration	
AA30/01	Declare Local Nature Reserve.
Training	
AT60/01	Liaise/supervise voluntary groups

Work Schedule

3.1.3 Work programme

Ten year work plan start year 2003 for Bramblefields										
Project code	Project Title	Years active with priority								
RA22	Collect data, herptiles, survey- pond amphibians- spring, summer	2				3				3
RA82	Collect data, invertebrates, survey- grassland and pond - summer	2			2				2	
MI10	Inform visitors, generally – Provide new legal warning signs	2								
MI50	Provide interpretive material – Update the information boards		3					3		
ML50	Liaise local community, groups – organise educational events at the local school	3	3	3	3	3	3	3	3	3
MP00	Protect site by patrol – maintain community policing	2	2	2	2	2	2	2	2	2
MH00	Manage habitat, woodland-scrub, by coppicing winter	2							2	
MH07	Manage habitat, woodland-scrub, by scrub control - winter	1			2			2		2
MH09	Manage habitat, woodland-scrub, by other activities – pollarding - winter		2							2
MH12	Manage habitat, grassland, by mowing, brushcutting July, August	1	1	1	1	1	1	1	1	1
MH14	Manage habitat, grassland, by scrub control - winter	1	1	1	1	1	1	1	1	1
MH52	Manage habitat, inundation, by scrub clearance Cut back the encroaching <i>Salix</i> species - winter		2			2			2	
MH53	Manage habitat, inundation, by brushcutting – July, August – half area each year	1	1	1	1	1	1	1	1	1
MH64	Manage habitat, open water, by clearing-winter Keep pond near piling clear - winter		2		3				2	
MA01	Manage habitat, artificial, by selective cutting Keep benches clear of vegetation - winter	1	2	2	2	2	2	2	2	2
MA05	Manage habitat, artificial, by path maintenance Keep all paths open - summer	1	1	1	1	1	1	1	1	1
MS10	Manage species, other vascular plant Control <i>Solidago</i> by hand pulling – June, July	2	2	2	2	2	2	2	2	2
ME20	Equip site by providing other structures Provide extra dog bins and bag dispensers Keep dispensers topped up once in place Provide sign	2								
ME30	Equip site by maintaining other structures Maintain piling				2				2	
ME40	Maintain site by removing rubbish,	1	1	1	1	1	1	1	1	1

Priority 1 – projects must be completed within the given year

Priority 2 – projects should be completed within the given year

Priority 3 – projects may be undertaken, after completion of all priority 1 and 2 tasks.