

**Mowbray Fields  
Local Nature Reserve  
Didcot**

**Site Management Plan**

**2012 - 2017**

**Prepared by the Earth Trust  
on behalf of South Oxfordshire District Council**



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## **1) Introduction**

The aim of this management plan is to define the management of Mowbray Fields Local Nature Reserve for the next five years. The reserve is situated immediately south of Didcot and northwest of East Hagbourne. To the north it is surrounded by housing, to the east by the embankment of a disused railway and to the south and west by the Hagbourne Brook.

South Oxfordshire District Council bought the site in the 1980's and on 21st January 2000 'Mowbray Fields' was declared a Local Nature Reserve (LNR). The designation was primarily to secure the management of the area for its existing wildlife value, and in particular for its special nature conservation interest in the fill pond.

The fill pond was constructed in 1983 as a flood overflow for the adjacent Hagbourne Brook. The fill pond was designed to prevent the flooding of East Hagbourne during heavy rains with water flowing into the pond via an overspill weir on the western boundary of the site. In the years since its construction the fill pond has developed a varied and interesting ecosystem that includes a healthy population of common spotted and southern marsh orchids.

The site is managed by the Earth Trust on behalf of the Council's Countryside Service; a warden is employed to carry out the day-to-day management and to implement the management plan. The warden's duties include regular weekly site checks, organisation of voluntary work, employment of contractors and undertaking the majority of management tasks.

## **2) Description**

The LNR designation covers an area of 1.88 hectares out of a total of 3.68 hectares that is owned and managed by the Council. The remit of this plan covers only the area of LNR. The reserve includes a small section of stream, a wildflower meadow, part of a railway embankment and a fill pond. The area not designated as LNR is an area of amenity grassland with scattered trees that is managed as a recreational area. A plan of the site is shown in Appendix 1.

For the purposes of this plan the site has been divided into three compartments:

- The Fill Pond
- The Wildflower Meadow
- Other habitats

### **2.1 The Fill Pond**

The fill pond contains a number of habitats including a large temporary pool, wet grassland, marsh, a tall herb community, rough grassland, and wet woodland.

### **2.2 The Wildflower Meadow**

The wildflower meadow is situated to the east of the fill pond and was sown in 2001 to diversify the number of habitats found on the site. The meadow has been created on former amenity grassland that has relatively nutrient rich soil, and as a result it has suffered from a number of problems. Despite this it is developing into a

relatively species rich meadow providing a haven for a wide variety of insects, butterflies, mammals and birds.

### **2.3 Other Habitats**

The Hagbourne Brook runs along an engineered course forming the southern and western boundary of the reserve. The brook for much of this length is overgrown with bramble and scrub and is often dry. Under normal conditions the brook flows continuously into the fill pond via a pipe in a bund adjacent to the original spill weir, which was re-engineered in 2010. In times of heavy rain and flood a second larger pipe allows a greater volume of water to flow into the pond. An additional overspill allows some of the flood water to run along the original course of the brook to the south and west of the site.

On the eastern side of the reserve is a former railway line that is on an embankment. Part of this embankment has been included in the LNR designation due to the chalk grassland growing on it, and its potential as a habitat for insects.

## **3) Ecology**

### **The Fill Pond**

This is the richest habitat on the site. Water continually seeps into the pond from underground and from the Hagbourne Brook. Over the last 20 years this has contributed to the fill pond developing into a very interesting wetland habitat providing home to some rare and threatened species.

The variety of habitats includes wet grassland, marsh, tall herb community, rough grassland, and wet woodland. The fill pond area was surveyed in 1999 and again in 2005. A comprehensive list of all species recorded to date is shown in Appendix 2.

The survey carried out in August 1999 found several important invertebrate species including one Red Data Book species, five nationally scarce species and 41 local species. In total 200 invertebrate species have been recorded on the site. The report that accompanied the survey highlights the importance of keeping a mosaic of habitats within the fill pond, to support the scarcer species that are associated with the various habitats. The most important habitats to maintain are the more open areas of wet and dry grassland.

The surveys have highlighted the importance of controlling the spread of willow that, if left unmanaged, will gradually change the ecological balance of the site as scrub and trees take over and reduce habitat diversity. However, it is equally important that areas of willow scrub are maintained to maximise the diversity of species breeding in the fill pond. These areas of woodland are important, for example, for providing good cover for nesting birds.

The fill pond is known to contain a good diversity of plant species, perhaps most notable amongst these are the large numbers of common spotted and southern marsh orchids. Counts of the number of flowering spikes of orchids over the years reached a peak in 1999 with over 3000 recorded. During the summer of 2005 the fill pond was surveyed by volunteers to get an estimate of the number of orchids

present. A total of 392 flowering orchid spikes were counted, although this is thought to be an underestimate. The majority of these were southern marsh and common spotted orchids but there were also a small number of bee orchids and pyramidal orchids. Since then an annual survey has been undertaken in June. The results of these surveys are included in Appendix 6.

From this evidence it would appear that the numbers of orchids increased from 2005 to 2007 and were in decline until 2011 when numbers increased again. The decline may have been due to changes in ecological conditions as habitats have gradually changed and matured over time. However it may also be due to natural fluctuations in the orchid population, or there may be other factors affecting the orchids. In reality, it is likely that the decline was a result of a combination of factors and it will not be possible without long-term research and monitoring to decide which are the most influential.

In 2005, a plant survey was undertaken as part of an ongoing monitoring protocol designed to establish any changes in the floristic composition of the site over time and to monitor the effectiveness of management activities. The results of this survey are included in the species list (Appendix 2). Full details of the methods used for the surveys are described in Section 6.

In addition to the invertebrate and vegetation surveys, casual observations of other species have revealed that the site is important for a number of common bird species. It is likely that species such as grass snakes and common frogs are also present although they have not yet been positively recorded.

#### **4) Management Constraints**

Local Nature Reserve Designation is a statutory declaration arising out of the 1949 National Parks and Access to the Countryside Act. Under this statutory designation the Council have the responsibility to manage Mowbray Fields Nature Reserve both for nature conservation and public access objectives. The purpose of the designation was to safeguard, maintain and enhance the ecological interest, and at the same time ensure continued public enjoyment and involvement in the site.

The Council is responsible for ensuring that the primary purpose of the fill pond as a flood alleviation scheme for East Hagbourne is maintained. No work undertaken as part of the management of the fill pond should adversely affect its functioning and safety.

#### **5) Management Objectives**

There are a number of factors that have been considered in drawing together this plan and which have helped to define the objectives:

1. The engineering function of the fill pond
2. The nature conservation interest
3. Public interest in and use of the site
4. The constraints on management
5. The available resources

When these factors are taken into account it is then possible to identify the management objectives that will underpin all the suggested management activities. The management objectives identified are:

- A. To maintain the functioning of the fill pond
- B. To maintain a mosaic of habitats in the fill pond
- C. To maintain and improve the diversity of species on the meadow
- D. Encourage interest from the local community in wildlife and well-being of the site
- E. To maintain the site infrastructure in good condition

These objectives have been used to define the management activities for each of the three main habitats on the reserve. Management actions are briefly described below. More detailed management prescriptions have been included in the table of management prescriptions in Section 7. A map showing the main management activities is shown in Appendix 9.

The key to the success of this plan and achieving the management objectives will be effective monitoring. Without monitoring it is not possible to determine whether the management is effective and is achieving the objectives set.

The monitoring undertaken over the past 7 years has indicated that the management to date has been effective in maintaining the number of orchids, improving the biodiversity in the fill pond, and increasing the species richness of the wildflower meadow. It is planned to undertake a full survey in 2012 of the plant and invertebrate species on site to investigate exactly how things have changed over the last 7 years and to evaluate whether any alterations need to be made to the management plan in future.

The management plan is a working document and has been adapted over the past seven years – for example we have started a rotational coppicing regime in the wet woodland to the north and east of the viewing platform. This was instigated in response to falling orchid numbers in this area and a general decrease in the diversity of flora beneath the trees. Other management activities undertaken that were not in the original plan include the unblocking of the exit pipe from the fill pond and the drainage pipes under the causeway leading to the viewing platform.

## **6) Management Activities**

### **6.1 The Fill Pond**

#### **6.1.1 Introduction**

For the purpose of this plan the habitats within the fill pond have been split into four separate areas; Area 1, Area 2, Wet Woodland and Embankment, the location of these areas are shown on the map in Appendix 9. These areas however should not be thought of in isolation but as part of a functioning ecosystem. The purpose of splitting it up is to aid description of the management and to cut the management activities into more defined units.

The composition of the habitats appears to be changing over time with natural succession. This has resulted in the encroachment of coarse species such as great

willow herb, bulrush, and bramble at the expense of the less competitive species such as orchids. Under an agricultural system this succession would be controlled by grazing, burning or an annual hay cut. Clearly the fill pond has never been in agricultural management therefore management is needed to control this succession in order to maintain the mosaic of habitats. The introduction of grazing stock is not an option on this site so regular mechanical or manual rotational cutting is required.

### **6.1.2 Current Management**

The main objective is to maintain a balance between the willow/scrub coverage and the open areas. Without any management the willows will gradually take over the open areas. The willows do however provide important habitat for birds that regularly visit the area. In areas of established woodland there has been minimal management, apart from an area to the east of the fill pond that has been coppiced. In the open habitats the management activities have involved regular cutting and clearing on a rotational basis. This has created a mosaic of habitats at various stages of succession with scrub cover of varying ages. Some of the willows have been left in log piles to rot providing dead wood habitats for invertebrates, the rest have been burnt on a raised fire platform that allows burning without damaging the underlying soil or flora.

### **6.1.3 Future Management**

**Area 1** This area is predominantly wet grassland, marsh, and tall herb communities

- Continue to coppice the invasive willow on a three-year rotation. Treat stumps to prevent regrowth.
- Cut tall herb vegetation on a three-year rotation. Remove all arisings

This will create a mosaic of different successional stages.

**Area 2** This area is predominantly rough grassland and is also the driest area.

- Cut half of the meadow area each year, coppicing any willow or scrub in the area at the same time.

Towards the southern edge of this section there is an area of rough grassland and scrub where invasive bramble is beginning to take over. Half this area is to be cleared every year depending on how much it grows back.

The cutting of both of these areas should benefit orchids and other wildflowers.

**Wet Woodland** Generally there will be minimal intervention apart from:

- Cutting back of the willows around the edges of the more open areas to prevent them from spreading further.
- Coppicing of willows in the wet woodland to the north east of the fill pond on a 5-year rotation.

The rest of the woodland areas will be left as cover for the many species of birds that regularly visit the site.

### **Embankments**

The embankments on the northern and southern edges of the fill pond should be cleared of bramble and scrub every 2-3 years to keep the view of the fill pond open, particularly from the bench situated on the top in the grassland area.

#### **6.1.4 Monitoring**

Casual surveys will be carried out whilst visiting the site throughout the year noting any species seen including birds, invertebrates, and flora. This will help to build up a comprehensive species list for the site which will help in considering future management as well as assessing the results of management activities.

Fixed point photography will be used to give a visual record of the development of the fill pond over time. Photographs should be taken every year in August from the same spot (shown in Appendix 9).

Orchid surveys should be carried out every year, towards the end of June when the majority are in flower. Monitoring the population levels and distribution of the orchids will help to assess the effectiveness of the management.

A comprehensive ecological survey will be undertaken during the spring/summer of 2012. The last full survey was completed in 1999, prior to the establishment of the nature reserve. This will provide essential information about how species composition has changed over time and will help to inform the next review of the management plan in 2017.

#### **6.1.5 Monitoring protocol (orchids)**

The area to be surveyed is split into 5 sections – Sections 1-4 being in the fill pond and Section 5 in the wildflower meadow. Appendix 4 shows the sections that are used in the survey. All flowering orchid spikes are counted and recorded on a tally sheet and their locations marked on a map. Since 2005 an annual survey has taken place, the results are shown in Appendix 6.

### **6.2 Wildflower Meadow**

#### **6.2.1 Introduction**

The wildflower meadow area at Mowbray Fields was created in 2002 to diversify the range of habitats found on the site. A list of the species that were sown is shown in Appendix 3. The meadow has developed gradually, initially having many problems with unwanted weeds and a patchy germination of the seed. Over time, with appropriate management, many of the problems are being resolved however some of the weed problems remain.

#### **6.2.2 Current Management**

Between 2006 and 2008 the meadow was cut in May and September. Since 2008 it has been cut only in September. In 2010 the southern half of the meadow received a cut in May. On each occasion all arisings were removed. A large amount of volunteer effort has also gone into weed control to try to prevent unwanted weeds from taking over.

#### **6.2.3 Future Management**

The area will be managed as a summer meadow allowing the plants to flower over the summer providing a rich colourful habitat. The southern half of the meadow will be cut in May as tall grasses and weeds such as dock and thistle dominate this area. The whole meadow will be cut in September after the flowers have seeded. This timing can

be varied from year to year so later flowering plants can seed. The area will be mown to a height of 5 to 10 cm from the ground. A few days after the cut has been made the clippings will be raked off so that they do not smother the plants or increase the fertility, as meadows thrive in areas with low nutrient levels. Leaving the cuttings for a few days will allow the seeds to drop out.

During the summer it will be necessary to hand pull or spot spray the taller coarse plants that out compete the meadow plants, in particular thistles, dock and nettles.

#### **6.2.4. Monitoring**

The meadow will be surveyed on an annual basis in June/July. Regular checks will also be made by the warden to monitor the growth of undesirable weeds and to inform the cutting regime. The annual monitoring will focus on the need to ensure that the species diversity is maintained and that the more competitive grasses are not dominating the sward. If necessary, yellow rattle will be used to prevent the further establishment of these grasses.

### **6.3 Other Habitats**

#### **6.3.1 Disused Railway Embankment**

The top of the embankment has been a footpath since the 1960's and is regularly used by dog walkers and cyclists. The Sustrans National Cycle Route now runs along this stretch of railway embankment. As a result, the management of this section is now the responsibility of Sustrans who lease the area from the Council.

#### **6.3.2 Stream**

The stream is situated on the boundary of the site and currently no management to the stream or the bank is required. With the bund and pipe in operation most of the lower section of the stream is dried out with the water flowing into the pond. The banks are overgrown with scrub. Unless vegetation growth interferes with public access along the paths there is no need for management.

The inflow and outflow pipes from the fill pond will need to be monitored for blockages and cleared periodically when necessary. As will the drainage pipes underneath the causeway leading to the fill pond.

### **6.4 General Monitoring**

Butterfly surveys will be carried out over the course of a year using the transect method. This involves establishing a fixed route around the site covering all the main habitats. Surveys need to be undertaken each week, between April and September. Appendix 7 shows the route that should be used for the Butterfly Transect. Appendix 8 shows the butterfly survey results from 2008 – 2011.

### **6.5 Interpretation and community involvement**

#### **6.5.1 Introduction**

Interpretation on the site is a very important means of communication to keep the local community informed about interest on the site and to keep them updated on any work

being carried out. Local residents have been involved in the site from early on by attending meetings and contributing their views on key issues, and it is therefore important to keep the link going.

### **6.5.2 Current Management**

Much of the practical management of the site is undertaken by the Green Gym volunteers and organised by the site warden. The Earth Trust's volunteers are also involved with practical management on the site. An interpretation board was installed in 2004 with the aim of raising the profile of the site and informing local people of what we are trying to achieve. It was hoped that this would help to foster a sense of respect for the site. As involvement in the site has increased this board has proved inadequate and should be replaced with a board which allows temporary information to be displayed alongside permanent information about the reserve. In 2008 a team of volunteer weekend wardens was established.

### **6.5.3 Future Management**

- Continue to utilise the Green Gym and Earth Trust volunteers.
- Additional exposure through local Didcot publications and the Earth Trust website are already helping to attract new volunteers to the site.
- Continue to manage the team of volunteer wardens who patrol the site at weekends.
- Design and install a new interpretation board to include a fixed panel and a space for temporary information (subject to funding).

## **6.6 Access provision**

### **6.6.1 Introduction**

The site is used by many local people and is visited by people using the Sustrans cycle route and other footpaths. As the site is heavily used it is important that the public access routes and facilities are properly maintained. Since the site was designated as a nature reserve a considerable amount of work has been undertaken to increase the access provision. Three wooden bridges have been installed across the Hagbourne Brook, a raised causeway and viewing platform built in the fill pond and two benches installed, one overlooking the fill pond and the other looking over the wildflower meadow.

### **6.6.2 Current Management**

Regular checks are undertaken by the warden to ensure that the footpaths and bridges are accessible and are in a good state of repair. Regular clearance is required along the stream banks and the footpath leading down to the fill pond when the scrub overhangs the footpaths. Any damage is repaired as soon as practicable. If there is any risk to site users because of damage to the access facilities then that facility is closed off until repairs can be carried out.

### **6.6.3 Future Management**

- Regular checks to be undertaken to ensure the safety of all the access structures.
- A risk assessment of access provision is to be undertaken on a six monthly basis.
- Damage and routine maintenance to be carried out as and when required.

## **6.7 General Site Maintenance**

### **6.7.1 Introduction**

Rubbish dumping and dog fouling has been a problem on the site in the past. Two dog bins have been installed and the interpretation board asks people to use them. Hopefully these measures will help to reduce dog-fouling problems in the future.

### **6.7.2 Current Management**

The site is patrolled regularly and litter and other rubbish are picked up as and when required.

### **6.7.3 Future Management**

General site maintenance is to continue with regular weekly checks.

## 7. Management Prescriptions

Location	Management Activity	Desired outcome	Objective	Priority	Timing
<b>Wildflower Meadow</b>					
	Two cuts per year, southern half cut in May, whole meadow cut in Sept. All arisings to be removed from meadow and piled in nettles on the southern boundary of the site in an inconspicuous location, away from the houses. Arisings should be left for a 3 - 4 days between cutting and removal to allow seeds to drop.	To create a summer wildflower meadow, this will help to diversify the range of habitats found on the site.	C	H	May and September Ongoing
	Control of the thistles, docks and nettles by spot spraying, digging or hand pulling.	Species rich wildflower meadow not dominated by coarse grasses and undesirable weeds.	C	H	Ongoing
	Annual survey of meadow in June/July.	To ensure that management prescriptions are effective and to allow changes to be made if necessary.	C	H	Annual
	Monitor for any bare patches and check that the sward is not being dominated by the more competitive grasses. If necessary sow these areas with yellow rattle.	To prevent the further establishment of coarse grasses.	C	M	Ongoing
	Regular checks by warden to inform weed control and cutting needs.	To ensure management is most effective.	C	H	Ongoing

**Objective:** This shows which of the 5 objectives the activity is trying to achieve. See section 5.

**Priority:** Priorities are defined as H = high or M = medium.

Location	Management Activity	Desired outcome	Objective	Priority	Timing
<b>Fill Pond</b>					
	Annual orchid count – (follow protocol in 6.1.5 and Appendix 4).	The orchids have been a characteristic species in the fill pond since it was established. These surveys will help to assess the effect of rotational cutting.	B	H	Annual
	Fixed point photography - to be carried out in August each year from the positions shown in Appendix 7.	To allow a record of changes to be built up over time.	B	H	Annual
Area 1:	Rotational cutting of the tall herb vegetation. One third of area to be done each year. Removal of all arisings to defined habitat piles. Commencing summer 2012 cut area to the southwest of viewing platform.	To prevent the willowherb from dominating the drier areas. To prevent the build up of decaying vegetation. The rotational regime will also help to create a mosaic of grassland habitats.	B	H	Annual
	Coppicing of the invasive willow/scrub followed by treatment of the stumps to prevent re-growth. Creation of habitat/log piles with the cut vegetation away from the grassland areas. One third of area to be done each year. (Same area as vegetation removal).	To prevent the willow from taking over. It will also improve the visual impact of the site by providing an open view of the fill pond.	B	H	Annual

<b>Location</b>	<b>Management Activity</b>	<b>Desired outcome</b>	<b>Objective</b>	<b>Priority</b>	<b>Timing</b>
Area 2:	Rotational cutting of the meadow to be undertaken from mid September onwards. Half of area cut annually. Removal of all arisings to defined habitat piles.	To create and enhance a mosaic of grassland habitats.	B	M	Annual
	Removal of invasive willow and scrub in half of the meadow every year.	To prevent the willow and scrub from dominating the grassland areas.	B	H	Annual
	Clearing of invasive bramble and scrub along the southern edge of the fill pond. Clearing to be carried out every 2 - 3 years, anytime from September onwards.	To prevent bramble from dominating the area.	B	M	Ongoing
<b>Wet woodlands:</b>	There will be minimal intervention in these areas apart from the cutting back of the willows around the edges.	To prevent the willows from spreading any further into the more open areas of the fill pond.	B	M	Ongoing
	Rotational coppicing of the two areas of wet woodland to the north and east of the viewing platform. To be cut on a 5 yearly rotation.	To improve the species diversity of the flora in these areas. This should particularly help the orchids.	B	M	Ongoing
<b>Embankments</b>	Clearing of the top edge of the northern boundary of the fill pond.	This will improve the visual impact of the site by providing an open view of the fill pond.	B and D	H	Ongoing – as required
<b>General Monitoring</b>	Butterfly transect – weekly between April and September.	To monitor the effects of the meadow creation and the management within the fill pond on butterfly populations.	B and C	H	Annual

<b>Location</b>	<b>Management Activity</b>	<b>Desired outcome</b>	<b>Objective</b>	<b>Priority</b>	<b>Timing</b>
<b>Interpretation and Community Involvement</b>					
	Run at least one event on the site each year involving the local community.	To encourage the local community to take an active interest in the site.	D	H	Annual
	Encourage local community members to get involved in the volunteer work parties on the site by advertising work parties on the interpretation board.	To encourage the local community to take an active interest in the site.	D	H	Ongoing
	Continue to recruit and manage the team of volunteer weekend wardens	To encourage the local community to take an active interest in the site.	D	H	Ongoing
	Design and install a new interpretation board to accommodate fixed map and text along with a space for temporary information. (Subject to funding)	To encourage the local community to take an active interest in the site.	D	M	Ongoing
	Keep the board regularly updated with relevant information.	To encourage the local community to take an active interest in the site.	D	H	Ongoing
<b>Access Provision</b>					
	Regular checks of footpaths and bridges.	To ensure that the footpaths and bridges are accessible and safe for public use.	E	H	Ongoing
	Undertake a risk assessment of access provision every 6 months.	To ensure all access routes are safe.	E	H	Ongoing

	Carry out all necessary urgent repairs to access structures as soon as problems are detected.	To ensure all access routes are safe.	E	H	Ongoing
	To cut back vegetation alongside the footpath around the southern and western boundaries of the fill pond, and the path to the platform, to maintain a 1.2m path width.	To maintain accessibility of path.	E	H	Ongoing
<b>General Site Maintenance</b>					
	Checks of benches, bridges, boardwalk and interpretation.	To check for damage, stability and vandalism.	E	H	Ongoing
	Regular picking up of litter and dumped garden waste.	To improve the visual appearance of the site.	E	H	Ongoing
	Monitor inflow and outflow pipes for blockages and remove debris as necessary.	To maintain the engineering function of the fill pond	A	H	Ongoing
	Monitor the drainage pipes beneath the causeway for blockages and remove debris as necessary	To maintain the engineering function of the fill pond.	A	H	Ongoing

**Objective:** This shows which of the 5 objectives the activity is trying to achieve. See section 5.

**Priority:** Priorities are defined as H = high or M = medium.

## 8. References

Hawker, G, (July 1999) *Mowbray Fields Local Nature Reserve Habitat Survey*, Unpublished report for Hagbourne Environment Group

Harvey, Martin, C, (August 1999), *Invertebrates at Mowbray Fields fill pond, Oxfordshire*, Unpublished report for Hagbourne Environment Group

Mowbray Fields Nature Reserve Boundary



## Fill Pond Species List

<b>Species</b>	<b>English name</b>	<b>Recorder</b>	<b>Year</b>
<b>Grasses, sedges and rushes</b>			
<i>Agrostis stolonifera</i>	Creeping bent	Graham Hawker	1999
<i>Alopercurus geniculatus</i>	Marsh foxtail	Graham Hawker	1999
<i>Alopercurus pratensis</i>	Meadow foxtail	Graham Hawker	1999
<i>Arrhenatherum elatius</i>	False oat grass	Graham Hawker	1999
<i>Bromus hordeaceus</i>	Soft brome	Graham Hawker	1999
<i>Carex hirta</i>	Hairy sedge	Graham Hawker	1999
<i>Carex otrubae</i>	False fox sedge	Graham Hawker	1999
<i>Dactylis glomerata</i>	Cocksfoot	Vicky Edward & Olivia Breffit	2005
<i>Elytrigia repens</i>	Couch	Graham Hawker	1999
<i>Festuca arundinacea</i>	Tall fescue	Graham Hawker	1999
<i>Festuca pratensis</i>	Meadow fescue	Graham Hawker	1999
<i>Glyceria sp.</i>	Reed-grass species	Graham Hawker	1999
<i>Holcus lanatus</i>	Yorkshire fog	Graham Hawker	1999
<i>Hordeum murinum</i>	Wall barley	Graham Hawker	1999
<i>Juncus articulatus</i>	Jointed rush	Graham Hawker	1999
<i>Juncus conglomerates</i>	Compact rush	Graham Hawker	1999
<i>Juncus effusus</i>	Soft rush	Graham Hawker	1999
<i>Juncus inflexus</i>	Hard rush	Graham Hawker	1999
<i>Lolium perenne</i>	Ryegrass	Graham Hawker	1999
<i>Phleum pratensis</i>	Timothy	Graham Hawker	1999
<i>Poa pratensis</i>	Smooth meadow grass	Graham Hawker	1999
<i>Poa trivalis</i>	Rough meadow grass	Graham Hawker	1999
<i>Schoenoplectus tabernaemontani</i>	Grey club-rush	Graham Hawker	1999
<i>Typha latifolia</i>	Bulrush	Graham Hawker	1999
<b>Other flora</b>			
<i>Achillia millefolium</i>	Yarrow	Graham Hawker	1999
<i>Alisma plantago-aquatica</i>	Water plantain	Graham Hawker	1999
<i>Anacamptis pyramidalis</i>	Pyramidal orchid	Vicky Edward	2005
<i>Anthriscus sylvestris</i>	Cow parsley	Vicky Edward & Olivia Breffit	2005
<i>Apium nodiflorum</i>	Fools watercress	Graham Hawker	1999
<i>Artemisia vulgaris</i>	Mugwort	Graham Hawker	1999
<i>Calystegia sepium</i>	Hedge bindweed	Graham Hawker	1999
<i>Calystegia acanthoides</i>	Wetted thistle	Graham Hawker	1999
<i>Cerastium fontanum</i>	Common mouse-ear	Graham Hawker	1999
<i>Cirsium arvense</i>	Creeping thistle	Graham Hawker	1999
<i>Cirsium palustre</i>	Marsh thistle	Graham Hawker	1999
<i>Cratageous monogyna</i>	Hawthorn	Graham Hawker	1999

## Appendix 2

<i>Crepis capillaries</i>	Smooth hawk's-beard	Graham Hawker	1999
<i>Crepis vesucaria</i>	Beaked hawk's-beard	Graham Hawker	1999
<i>Dactylorhiza fuchsii</i>	Common spotted orchid	Graham Hawker	1999
<i>Dactylorhiza fuchsii</i> x <i>praetermissa</i>	Common spotted and Southern marsh orchid hybrid	Graham Hawker	1999
<i>Dactylorhiza praetermissa</i>	Southern marsh orchid	Graham Hawker	1999
<i>Daucus carota</i>	Wild carrot	Graham Hawker	1999
<i>Epilobium hirsutum</i>	Great willowherb	Graham Hawker	1999
<i>Epilobium parviflorum</i>	Hoary willowherb	Dominic Lamb	2005
<i>Equisetum arvense</i>	Field horsetail	Graham Hawker	1999
<i>Equisetum palustre</i>	Marsh horsetail	Graham Hawker	1999
<i>Galeopsis angustifolia</i>	Red hemp-nettle	Vicky Edward & Olivia Breffit	2005
<i>Galium aparine</i>	Cleavers	Graham Hawker	1999
<i>Geranium dissectum</i>	Cut-leaved cranesbill	Graham Hawker	1999
<i>Heracleum sphondylium</i>	Hogweed	Graham Hawker	1999
<i>Irus pseudacorus</i>	Yellow flag	Graham Hawker	1999
<i>Lathyrus pratensis</i>	Meadow vetchling	Graham Hawker	1999
<i>Linaria vulgaris</i>	Common toadflax	Graham Hawker	1999
<i>Lotus corniculatus</i>	Common birds-foot trefoil	Graham Hawker	1999
<i>Medicago lupulina</i>	Black medick	Graham Hawker	1999
<i>Odontites verna</i>	Red bartsia	Graham Hawker	1999
<i>Ophrys apifera</i>	Bee orchid	Vicky Edward	2005
<i>Persicaria bistorta</i>	Bistort	Vicky Edward & Olivia Breffit	2005
<i>Picris echioides</i>	Bristly ox-tongue	Vicky Edward & Olivia Breffit	2005
<i>Plantago lanceolata</i>	Ribwort plantain	Graham Hawker	1999
<i>Plantago major</i>	Greater plantain	Graham Hawker	1999
<i>Polygonum lapthifolium</i>	Pale persicaria	Graham Hawker	1999
<i>Ranunculus repens</i>	Creeping buttercup	Graham Hawker	1999
<i>Rosa canina</i>	Dog rose	Graham Hawker	1999
<i>Rosa</i> sp.	Garden rose species	Graham Hawker	1999
<i>Rubus fruticosus</i>	Bramble	Graham Hawker	1999
<i>Rumex conglomerates</i>	Clustered dock	Graham Hawker	1999
<i>Rumex crispus</i>	Curled dock	Graham Hawker	1999
<i>Rumex obtusifolius</i>	Broad leaved dock	Graham Hawker	1999
<i>Rumex sanguineus</i>	Wood dock	Graham Hawker	1999
<i>Salix caprea</i>	Goat willow	Graham Hawker	1999
<i>Salix</i> sp.	Willow species	Graham Hawker	1999
<i>Scrophularia auriculata</i>	Water figwort	Graham Hawker	1999
<i>Senecio jacobea</i>	Ragwort	Graham Hawker	1999

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<i>Solanum dulcamara</i>	Bittersweet	Graham Hawker	1999
<i>Sonchus arvensis</i>	Perennial sow-thistle	Graham Hawker	1999
<i>Sonchus palustris</i>	Marsh sow-thistle	Vicky Edward & Olivia Breffit	2005
<i>Stachys palustre</i>	Marsh woundwort	Graham Hawker	1999
<i>Stachus sylvatica</i>	Hedge woundwort	Graham Hawker	1999
<i>Trifolium pratensis</i>	Red clover	Graham Hawker	1999
<i>Trifolium repens</i>	White clover	Graham Hawker	1999
<i>Tussilago farfara</i>	Colt's-foot	Graham Hawker	1999
<i>Urtica dioica</i>	Common nettle	Graham Hawker	1999
<i>Veronica beccabunga</i>	Brooklime	Graham Hawker	1999
<i>Vicia hirsuta</i>	Hairy tare	Graham Hawker	1999
<i>Vicia tetrasperma</i>	Smooth tare	Graham Hawker	1999
<b>Invertebrates</b>			
<i>Abrostola triplasia</i>	Spectacle	Martin Harvey	1999
<i>Acentria nivea</i>	Water Veneer	Martin Harvey	1999
<i>Acronicta aceris</i>	Sycamore	Martin Harvey	1999
<i>Acronicta megacephala</i>	Poplar Grey	Martin Harvey	1999
<i>Acronicta psi</i>	Grey Dagger	Martin Harvey	1999
<i>Acronicta tridens</i>	Dark Dagger	Martin Harvey	1999
<i>Aeshna grandis</i>	Brown Hawker	Martin Harvey	1999
<i>Aethes rubigana</i>	a micro-moth	Martin Harvey	1999
<i>Agabus bipustulatus</i>	a water beetle	Martin Harvey	1999
<i>Agapeta hamana</i>	a micro-moth	Martin Harvey	1999
<i>Agelena labyrinthica</i>	Labyrinth Spider	Martin Harvey	1999
<i>Aglais urticae</i>	Small Tortoiseshell	Martin Harvey	1999
<i>Agriphila straminella</i>	a pyralid moth	Martin Harvey	1999
<i>Agrotis exclamationis</i>	Heart and Dart	Martin Harvey	1999
<i>Amara apricaria</i>	a ground beetle	Martin Harvey	1999
<i>Andrena dorsata</i>	a solitary bee	Martin Harvey	1999
<i>Anomoia purmunda</i>	a gall fly	Martin Harvey	1999
<i>Anthocoris nemorum</i>	Common Flower Bug	Martin Harvey	1999
<i>Apamea anceps</i>	Large Nutmeg	Martin Harvey	1999
<i>Apamea lithoxylea</i>	Light Arches	Martin Harvey	1999
<i>Aphantopus hyperantus</i>	Ringlet	Martin Harvey	1999
<i>Aphelia paleana</i>	Timothy Tortrix	Martin Harvey	1999
<i>Aphomia sociella</i>	Bee Moth	Martin Harvey	1999
<i>Apis mellifera</i>	Honey Bee	Martin Harvey	1999
<i>Araneus diadematus</i>	Garden Orb-web Spider	Martin Harvey	1999
<i>Araneus quadratus</i>	an orb-weaver spider	Martin Harvey	1999
<i>Athalia cordata</i>	a sawfly	Martin Harvey	1999
<i>Athous bicolor</i>	a click beetle	Martin Harvey	1999
<i>Autographa gamma</i>	Silver Y	Martin Harvey	1999
<i>Axylia putris</i>	Flame	Martin Harvey	1999
<i>Beris vallata</i>	a soldier fly	Martin Harvey	1999

## Appendix 2

<i>Bombus pascuorum</i>	Common Carder Bee	Martin Harvey	1999
<i>Bombus terrestris</i>	Buff-tailed Bumble Bee	Martin Harvey	1999
<i>Brachmia rufescens</i>	a micro-moth	Martin Harvey	1999
<i>Cabera exanthemata</i>	Common Wave	Martin Harvey	1999
<i>Campsicnemus curvipes</i>	a dolichopodid fly	Martin Harvey	1999
<i>Campsicnemus scambus</i>	a dolichopodid fly	Martin Harvey	1999
<i>Camptogramma bilineata bilineata</i>	Yellow Shell	Martin Harvey	1999
<i>Cantharis nigra</i>	a soldier beetle	Martin Harvey	1999
<i>Cantharis pallida</i>	a soldier beetle	Martin Harvey	1999
<i>Cantharis thoracica</i>	a soldier beetle	Martin Harvey	1999
<i>Chalcoides fulvicornis</i>	a leaf beetle	Martin Harvey	1999
<i>Chloroclystis rectangulata</i>	Green Pug	Martin Harvey	1999
<i>Chloromyia formosa</i>	a soldier fly	Martin Harvey	1999
<i>Chorthippus parallelus</i>	Meadow Grasshopper	Martin Harvey	1999
<i>Chrysoperla carnea</i> s.s. (sensu Plant 1997)	a green lacewing	Martin Harvey	1999
<i>Chrysopilus cristatus</i>	a snipe fly	Martin Harvey	1999
<i>Chrysoteuchia culmella</i>	Garden Grass-veneer	Martin Harvey	1999
<i>Chrysotoxum bicinctum</i>	a hoverfly	Martin Harvey	1999
<i>Chrysotus blepharosceles</i>	a dolichopodid fly	Martin Harvey	1999
<i>Cionus alauda</i>	a weevil	Martin Harvey	1999
<i>Cionus scrophulariae</i>	Figwort Weevil	Martin Harvey	1999
<i>Cionus tuberculosus</i>	a weevil	Martin Harvey	1999
<i>Clepsis spectrana</i>	a tortrix moth	Martin Harvey	1999
<i>Coccinella septempunctata</i>	Seven-spot Ladybird	Martin Harvey	1999
<i>Conocephalus discolor</i>	Long-winged Conehead	Martin Harvey	1999
<i>Cosmia trapezina</i>	Dun-bar	Martin Harvey	1999
<i>Crambus perlella</i>	a pyralid moth	Martin Harvey	1999
<i>Cryphia domestica</i>	Marbled Beauty	Martin Harvey	1999
<i>Cucullia umbratica</i>	Shark	Martin Harvey	1999
<i>Deilephila elpenor</i>	Elephant Hawk-moth	Martin Harvey	1999
<i>Dicranopalpus ramosus</i>	a harvestman	Martin Harvey	1999
<i>Dilophus febrilis</i>	Fever Fly	Martin Harvey	1999
<i>Diplolepis rosae</i>	Robin's Pin-cushion Gall	Martin Harvey	1999
<i>Dolichopus ungulatus</i>	a dolichopodid fly	Martin Harvey	1999
<i>Eilema complana</i>	Scarce Footman	Martin Harvey	1999
<i>Eilema lurideola</i>	Common Footman	Martin Harvey	1999
<i>Elipsocus hyalinus</i>	a booklouse or barklouse	Martin Harvey	1999

## Appendix 2

<i>Emmelina monodactyla</i>	a plume moth	Martin Harvey	1999
<i>Empis (Kritempis) livida</i>	a dance fly	Martin Harvey	1999
<i>Enoplognatha ovata</i>	a comb-footed spider	Martin Harvey	1999
<i>Ephemera lineata</i>	a mayfly	Martin Harvey	1999
<i>Epiblema foenella</i>	a tortrix moth	Martin Harvey	1999
<i>Epiblema uddmanniana</i>	Bramble Shoot Moth	Martin Harvey	1999
<i>Episyrphus balteatus</i>	a hoverfly	Martin Harvey	1999
<i>Erioptera trivialis</i>	a crane fly	Martin Harvey	1999
<i>Eriothrix rufomaculata</i>	a parasitic fly	Martin Harvey	1999
<i>Eucosma campoliliana</i>	a tortrix moth	Martin Harvey	1999
<i>Eucosma cana</i>	a tortrix moth	Martin Harvey	1999
<i>Eulithis pyraliata</i>	Barred Straw	Martin Harvey	1999
<i>Eupithecia centaureata</i>	Lime-speck Pug	Martin Harvey	1999
<i>Eupoecilia angustana</i>	a micro-moth	Martin Harvey	1999
<i>Euproctis chrysorrhoea</i>	Brown-tail	Martin Harvey	1999
<i>Eurrhypara coronata</i>	a pyralid moth	Martin Harvey	1999
<i>Eurrhypara hortulata</i>	Small Magpie	Martin Harvey	1999
<i>Euthrix potatoria</i>	Drinker	Martin Harvey	1999
<i>Fannia armata</i>	a lesser house fly	Martin Harvey	1999
<i>Forficula auricularia</i>	Common Earwig	Martin Harvey	1999
<i>Galerucella lineola</i>	Brown Willow Beetle	Martin Harvey	1999
<i>Graphopsocus cruciatus</i>	a booklouse or barklouse	Martin Harvey	1999
<i>Habrosyne pyritoides</i>	Buff Arches	Martin Harvey	1999
<i>Haematopota pluvialis</i>	a horse fly	Martin Harvey	1999
<i>Harpalus ardosiacus</i>	a ground beetle	Martin Harvey	1999
<i>Hedya salicella</i>	a tortrix moth	Martin Harvey	1999
<i>Helius flavus</i>	a crane fly	Martin Harvey	1999
<i>Hemistola chrysoprasaria</i>	Small Emerald	Martin Harvey	1999
<i>Hemitheia aestivaria</i>	Common Emerald	Martin Harvey	1999
<i>Homoeosoma sinuella</i>	a pyralid moth	Martin Harvey	1999
<i>Hydrobius fuscipes</i>	a scavenger water beetle	Martin Harvey	1999
<i>Hydrophorus litoreus</i>	a dolichopodid fly	Martin Harvey	1999
<i>Hydrotaea ignava</i>	a muscid fly	Martin Harvey	1999
<i>Hypena proboscidalis</i>	Snout	Martin Harvey	1999
<i>Idaea aversata</i>	Riband Wave	Martin Harvey	1999
<i>Ilybius fuliginosus</i>	a water beetle	Martin Harvey	1999
<i>Ipimorpha subtusa</i>	Olive	Martin Harvey	1999
<i>Lacanobia oleracea</i>	Bright-line Brown-eye	Martin Harvey	1999
<i>Laothoe populi</i>	Poplar Hawk-moth	Martin Harvey	1999
<i>Lasius niger</i>	Small Black Ant	Martin Harvey	1999
<i>Leptogaster cylindrica</i>	a robber fly	Martin Harvey	1999
<i>Leptothorax nylanderii</i>	an ant	Martin Harvey	1999
<i>Limnia unguicornis</i>	a snail-killing fly	Martin Harvey	1999

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<i>Limnophila nemoralis</i> (grey)	a crane fly	Martin Harvey	1999
<i>Limonia (Dicranomyia)</i> <i>modesta</i>	a crane fly	Martin Harvey	1999
<i>Limonia (Rhipidia)</i> <i>duplicata</i>	a crane fly	Martin Harvey	1999
<i>Lobesia abscisana</i>	a tortrix moth	Martin Harvey	1999
<i>Lomaspilis marginata</i>	Clouded Border	Martin Harvey	1999
<i>Lomographa temerata</i>	Clouded Silver	Martin Harvey	1999
<i>Maniola jurtina</i>	Meadow Brown	Martin Harvey	1999
<i>Megachile willughbiella</i>	Willughby's Leaf-cutter Bee	Martin Harvey	1999
<i>Melanargia galathea</i> <i>serena</i>	Marbled White	Martin Harvey	1999
<i>Melanchra persicariae</i>	Dot Moth	Martin Harvey	1999
<i>Melitta tricincta</i>	a solitary bee	Martin Harvey	1999
<i>Mesapamea secalis</i>	Common Rustic	Martin Harvey	1999
<i>Metrioptera roeselii</i>	Roesel's Bush Cricket	Martin Harvey	1999
<i>Microchrysa polita</i>	a soldier fly	Martin Harvey	1999
<i>Molophilus bifidus</i>	a crane fly	Martin Harvey	1999
<i>Myelois cribrella</i>	Thistle Ermine	Martin Harvey	1999
<i>Mythimna ferrago</i>	Clay	Martin Harvey	1999
<i>Mythimna impura</i>	Smoky Wainscot	Martin Harvey	1999
<i>Mythimna pallens</i>	Common Wainscot	Martin Harvey	1999
<i>Neoscia tenur</i>	a hoverfly	Martin Harvey	1999
<i>Nephrotoma flavescens</i>	a crane fly	Martin Harvey	1999
<i>Noctua comes</i>	Lesser Yellow Underwing	Martin Harvey	1999
<i>Noctua fimbriata</i>	Broad-bordered Yellow Underwing	Martin Harvey	1999
<i>Noctua pronuba</i>	Large Yellow Underwing	Martin Harvey	1999
<i>Nonagria typhae</i>	Bulrush Wainscot	Martin Harvey	1999
<i>Norellia spinipes</i>	a scathophagid fly	Martin Harvey	1999
<i>Ochlodes venata faunus</i>	Large Skipper	Martin Harvey	1999
<i>Ochropleura plecta</i>	Flame Shoulder	Martin Harvey	1999
<i>Odontopera bidentata</i>	Scalloped Hazel	Martin Harvey	1999
<i>Olethreutes lacunana</i>	a tortrix moth	Martin Harvey	1999
<i>Oligia latruncula</i>	Tawny Marbled Minor	Martin Harvey	1999
<i>Opisthograptis luteolata</i>	Brimstone Moth	Martin Harvey	1999
<i>Opomyza florum</i>	a fly	Martin Harvey	1999
<i>Ourapteryx sambucaria</i>	Swallow-tailed Moth	Martin Harvey	1999
<i>Oxycera nigricornis</i>	a soldier fly	Martin Harvey	1999
<i>Pachygaster atra</i>	a soldier fly	Martin Harvey	1999
<i>Pararge aegeria</i>	Speckled Wood	Martin Harvey	1999
<i>Perizoma alchemillata</i>	Small Rivulet	Martin Harvey	1999

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<i>Phalera bucephala</i>	Buff-tip	Martin Harvey	1999
<i>Philereme transversata</i>	Dark Umber	Martin Harvey	1999
<i>Philotarsus picicornis</i>	a booklouse or barklouse	Martin Harvey	1999
<i>Phlogophora meticulosa</i>	Angle Shades	Martin Harvey	1999
<i>Phtheochroa rugosana</i>	a micro-moth	Martin Harvey	1999
<i>Phytomyza spondylii s.l.</i>	a leaf-mining fly	Martin Harvey	1999
<i>Pieris brassicae</i>	Large White	Martin Harvey	1999
<i>Pieris napi</i>	Green-veined White	Martin Harvey	1999
<i>Platycheirus albimanus</i>	a hoverfly	Martin Harvey	1999
<i>Platycheirus angustatus</i>	a hoverfly	Martin Harvey	1999
<i>Platycheirus clypeatus</i> <i>sens. str.</i>	a hoverfly	Martin Harvey	1999
<i>Pleuroptya ruralis</i>	Mother of Pearl	Martin Harvey	1999
<i>Pollenia intermedia</i>	a blue bottle or green bottle	Martin Harvey	1999
<i>Pollenia pallida</i>	a blue bottle or green bottle	Martin Harvey	1999
<i>Praomyia leachii</i>	a soldier fly	Martin Harvey	1999
<i>Propylea</i> <i>quattuordecimpunctata</i>	14-spot Ladybird	Martin Harvey	1999
<i>Protapion nigrifarse</i>	a seed weevil	Martin Harvey	1999
<i>Psyllobora</i> <i>vigintiduopunctata</i>	22-spot Ladybird	Martin Harvey	1999
<i>Pterophorus</i> <i>pentadactyla</i>	White Plume Moth	Martin Harvey	1999
<i>Pyronia tithonus</i> <i>britanniae</i>	Gatekeeper	Martin Harvey	1999
<i>Rhagio tringarius</i>	a snipe fly	Martin Harvey	1999
<i>Rhagonycha fulva</i>	Common red soldier beetle	Martin Harvey	1999
<i>Scoliopteryx libatrix</i>	Herald	Martin Harvey	1999
<i>Scopula immutata</i>	Lesser Cream Wave	Martin Harvey	1999
<i>Scotopteryx</i> <i>chenopodiata</i>	Shaded Broad-bar	Martin Harvey	1999
<i>Semiothisa clathrata</i>	Latticed Heath	Martin Harvey	1999
<i>Sicus ferrugineus</i>	a fly	Martin Harvey	1999
<i>Sisyra fuscata</i>	a sponge lacewing	Martin Harvey	1999
<i>Stilbus testaceus</i>	a smut beetle	Martin Harvey	1999
<i>Suillia variegata</i>	a fly	Martin Harvey	1999
<i>Sylvicola punctatus</i>	a window gnat	Martin Harvey	1999
<i>Syrirta pipiens</i>	a hoverfly	Martin Harvey	1999
<i>Syrphus ribesii</i>	a hoverfly	Martin Harvey	1999
<i>Tenebrio molitor</i>	Mealworm Beetle	Martin Harvey	1999
<i>Tenthredo notha</i>	a sawfly	Martin Harvey	1999
<i>Tetanocera elata</i>	a snail-killing fly	Martin Harvey	1999

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<i>Thumatha senex</i>	Round-winged Muslin	Martin Harvey	1999
<i>Thymelicus lineola</i>	Essex Skipper	Martin Harvey	1999
<i>Thymelicus sylvestris</i>	Small Skipper	Martin Harvey	1999
<i>Tipula (Acutipula) fulvipennis</i>	a crane fly	Martin Harvey	1999
<i>Tipula (Acutipula) maxima</i>	a crane fly	Martin Harvey	1999
<i>Tipula (Lunatipula) fascipennis</i>	a crane fly	Martin Harvey	1999
<i>Tipula (Yamatipula) lateralis</i>	a crane fly	Martin Harvey	1999
<i>Trichadenotecnum majus</i>	a booklouse or barklouse	Martin Harvey	1999
<i>Trypoxylon figulus</i>	Black Wood Borer Wasp	Martin Harvey	1999
<i>Udea olivalis</i>	a pyralid moth	Martin Harvey	1999
<i>Urophora cardui</i>	a gall fly	Martin Harvey	1999
<i>Volucella pellucens</i>	a hoverfly	Martin Harvey	1999
<i>Xanthogramma pedissequum</i>	a hoverfly	Martin Harvey	1999
<i>Xanthorhoe fluctuata</i>	Garden Carpet	Martin Harvey	1999
<i>Zeuzera pyrina</i>	Leopard Moth	Martin Harvey	1999

## Wildflower Meadow Species List

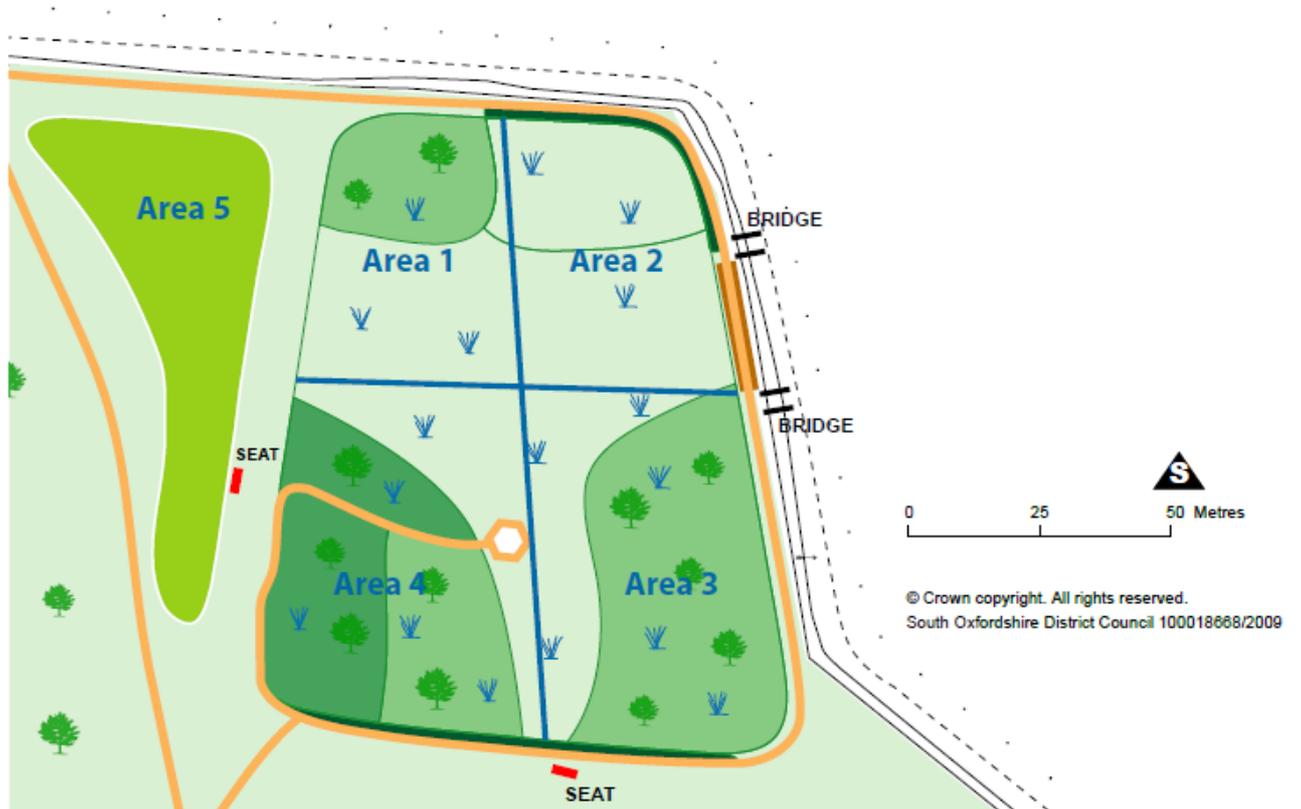
## 1. Seed mixture sown in 2001

<b>Species</b>	<b>English name</b>
<i>Galium aparine</i>	Lady's bedstraw
<i>Lotus comiculatus</i>	Bird's foot trefoil
<i>Sanguisorba minor</i>	Salad burnet
<i>Ranunculus acris</i>	Meadow buttercup
<i>Knautia arvensis</i>	Field scabious
<i>Rhinanthus minor</i>	Yellow rattle
<i>Achillea millefolium</i>	Yarrow
<i>Rumex acetosa</i>	Common sorrel
<i>Prunella vulgaris</i>	Self-heal
<i>Lychnis flos-cuculi</i>	Ragged robin
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Plantago media</i>	Hoary plantain
<i>Cerastium arvense</i>	Common mouse ear
<i>Medicago lupulina</i>	Black medick
<i>Centura nigra</i>	Common knapweed
<i>Primula veris</i>	Cowslip
<i>Hypochaeris radicata</i>	Cat's ear
<i>Daucus carota</i>	Wild carrot
<i>Silene latifolia</i>	White campion

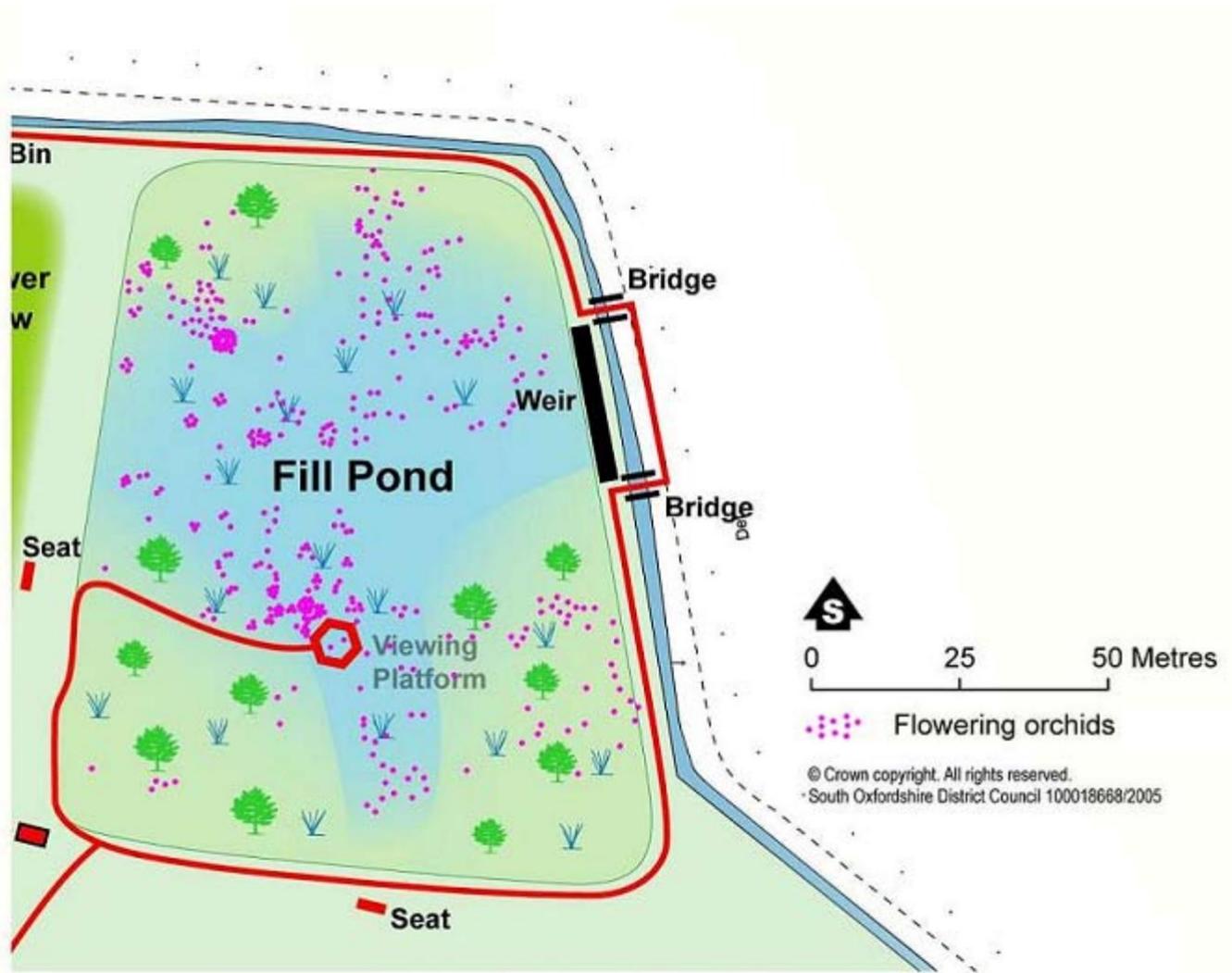
## 2. Other Species noted in meadow

<b>Species</b>	<b>English name</b>
<i>Leucanthemum vulgare</i>	Ox eye daisy
<i>Stellaria palustris</i>	Greater stitchwort
<i>Vicia sativa</i>	Common vetch
<i>Taraxacum ruderalia</i>	Dandelion
<i>Trifolium repens</i>	White clover
<i>Geranium robertianum</i>	Herb robert
<i>Cirsium arvense</i>	Creeping thistle
<i>Urtica dioica</i>	Common nettle
<i>Rumex sp.</i>	Dock

Mowbray Fields Orchid Survey Compartments



Mowbray Fields Orchid Count 28 June 2005

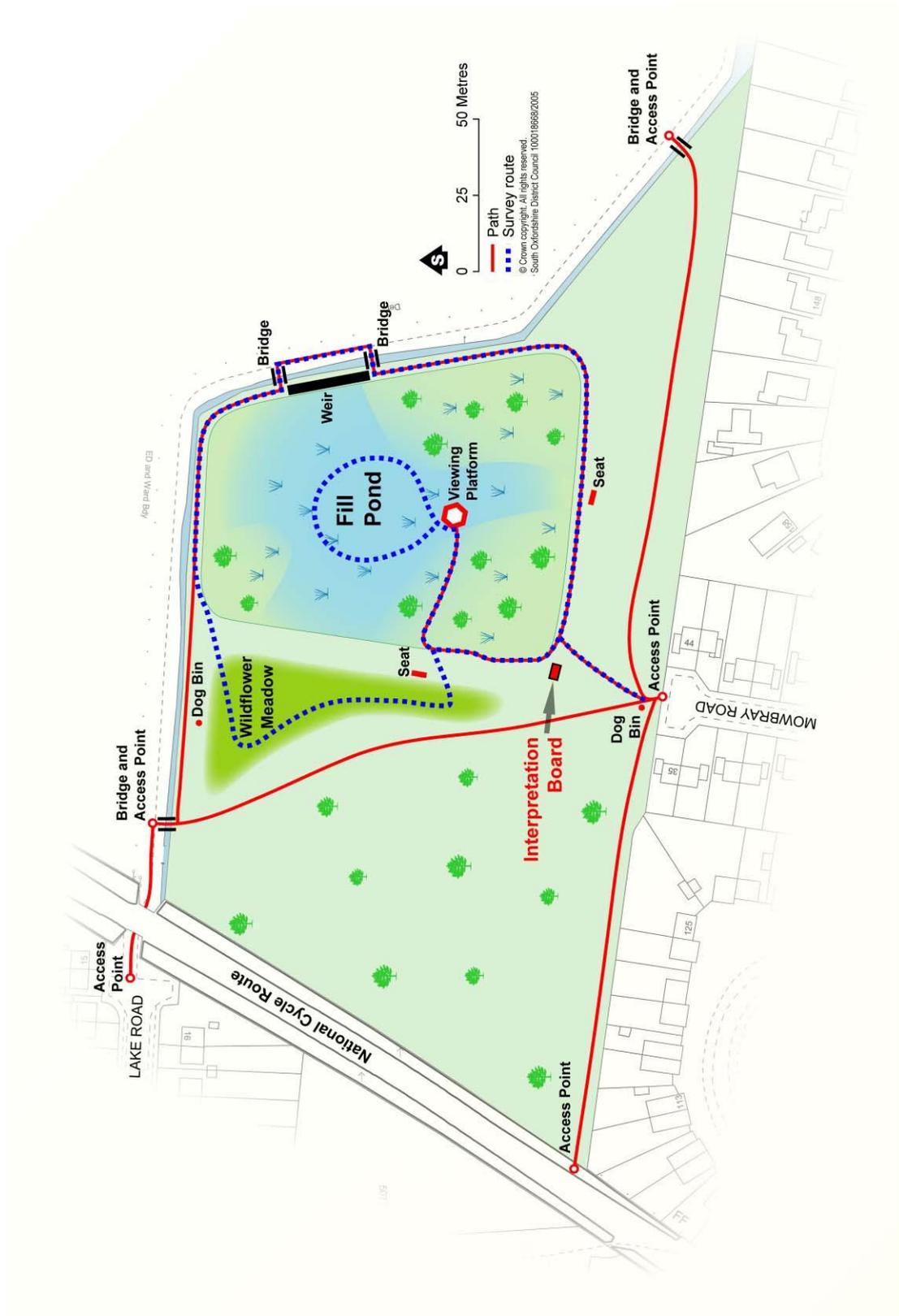


Appendix 6

Orchid Count Results 2005 - 2010

	Common Spotted and Southern Marsh Orchids					Pyramidal Orchid	Bee Orchid	Other	Total
	Area 1 SE	Area 2 SW	Area 3 NW	Area 4 NE	Wildflower Meadow				
28/6/2005	88	114	74	116	0	Included in overall count	Included in overall count		<b>392</b>
27/6/2006	299	215	218	65	0	1	12		<b>810</b>
26/6/2007	887	70	169	56	0	1 included in overall count	Included in overall count		<b>1182</b>
24/6/2008	14	287	208	23	0	0	7 in Area 2		<b>539</b>
23/7/2009	3	236	42	50	0	0	11 in Area 2	1 Twayblade	<b>343</b>
22/6/2010	7	132	53	49	21	0	1 in Area 2		<b>263</b>
21/6/2011	48	201	143	77	35	0	0	0	<b>504</b>

# Butterfly Transect Map



## Appendix 8

### Butterfly Survey Results 2008 – 2011

#### Mowbray Fields Butterfly Survey Results 2008

Butterfly Species	Totals
Large White	70
Small White	58
Speckled Wood	40
Meadow Brown	31
Ringlet	21
Peacock	9
Holly Blue	7
Wall Brown	7
Orange Tip	4
Brimstone	3
Gatekeeper	2
Small Tortoiseshell	1
Marbled White	1

Section Number	Totals
3	61
9	45
7	41
6	39
4	24
8	21
2	10
5	9
1	3
	253

#### Mowbray Fields Butterfly Survey Results 2009

Butterfly Species	Totals
Small White	262
Speckled Wood	89
Large White	41
Painted Lady	24
Meadow Brown	21
Ringlet	10
Common Blue	8
Holly Blue	7
Orange Tip	2
Gatekeeper	2
Small Copper	2
Peacock	1
Small Tortoiseshell	1
Red Admiral	1
Small Skipper	1
Wall Brown	
Brimstone	
Marbled White	

Section Number	Totals
3	107
9	95
4	66
7	58
6	54
8	38
5	31
2	15
1	13
	477

**Mowbray Fields Butterfly Survey Results 2010**

Butterfly Species	Totals
Small White	118
Speckled Wood	24
Holly Blue	20
Small Tortoiseshell	17
Marbled White	12
Meadow Brown	11
Ringlet	6
Peacock	4
Small Skipper	4
Brimstone	2
Large White	1
Orange Tip	1
Green Veined White	1
Painted Lady	
Common Blue	
Gatekeeper	
Small Copper	
Red Admiral	
Wall Brown	

Section Number	Totals
3	69
9	59
4	27
8	19
2	13
5	12
6	11
7	7
1	5
	222

**Mowbray Fields Butterfly Survey Results 2011**

Butterfly Species	Totals
Large White	88
Speckled Wood	51
Meadow Brown	29
Small White	24
Holly Blue	8
Small Tortoiseshell	5
Marbled White	4
Ringlet	4
Comma	3
Large Skipper	3
Peacock	2
Orange Tip	2
Brimstone	1
Green Veined White	
Painted Lady	
Common Blue	
Gatekeeper	
Small Copper	
Red Admiral	
Wall Brown	

Section Number	Totals
3	70
9	44
6	26
8	24
4	21
7	16
5	16
1	5
2	2
	224

