

Copy Wood Field

Site Management Plan

2010 - 2014

Produced by Epping Forest Countrycare – August 2009



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1.5 Boundaries

The field is a regular rectangle shape. It is bounded on the northern edge by an intermittent hedge where planting has taken place but failed to establish well. There is some hawthorn (*Crataegus monogyna*) and bramble (*Rubus fruticosus*) scrub. The eastern edge is bordered by taller trees, scrub and a stream. The bridleway on the southern boundary has two parallel hedges with taller trees, elm (*Ulmus procera*) and ash (*Fraxinus excelsior*). The western edge borders Copy Wood. A ditch runs along this edge too, joining the pond on the northwest corner to that on the southwest. (See map, appendix 3.)

1.6 Map and Photographic Coverage

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2.0 Environmental Information

2.1 Physical

2.1.1 Climate

Temperature: The average annual temperature for southeast Essex is 9.5-11°C, with slightly lower averages in rural and suburban areas. Mean daily maximum temperatures are in July.

Wind Speed and Direction: The predominant wind direction is from the southwest, but northeasterlies are frequent in spring when anticyclonic conditions take hold over the UK or Europe.

Sunshine: Average annual sunshine hours for this region are between 1370 and 1600 hours.

Rainfall: The average rainfall for this area is....

2.1.2 Geology, Soils & Hydrology

The site is on a cap of chalky boulder clay overlying the extensive London clay of the area to the southwest. The boulder clay is comparatively nutrient rich.

The site is uneven and slopes away to the northwest and northeast. It lies at 90m above sea level on the north face of a small ridge running between Waltham Abbey and Harlow. It drains northwestward towards Nazeing and the River Lea. The field to the south drains into the stream on the eastern edge. The pond to the south contains standing water but drains northwesterly in a ditch running along the edge of Copy Wood.

2.2 Biological

The site forms a link of semi-natural habitat between an ancient woodland, Copy Wood, and the Forest Land of Epping Long Green. Its conservation would preserve the integrity of a linear area of semi-natural habitat along the ridge to the west of Epping Long Green. An area of grassland amongst the intensive arable land is rare. Unimproved flower rich meadows are now incredible valuable and rare. Essex has lost 99% of this habitat since 1945. It is vital to conserve the wild flowers and encourage grassland invertebrates.

Biological information is based on a site visit in April 2004. It would be advisable to conduct a full ecological survey to bring records up to date.

2.2.1 Flora

Vegetation can be split into three components: pasture, green lane and boundary/scrub. The varied habitats, these plus the ponds, give the site diverse potential for wildlife.

2.2.1.1 Grassland: Near the entrance (break in hedge on southern edge), trampling has meant the sward is much shorter. Some early growth of Lords and Ladies (*Arum maculatum*), Cow parsley (*Anthriscus sylvestris*) and Cowslip (*Primula veris*) were in evidence towards the southeastern corner (plate 1). The surface is uneven and dotted with anthills. Species such as Lady's Bedstraw and Pyramidal Orchid are evident in late summer.

2.2.1.2 Green Lane: The hedge on the northern side of the lane is approximately 2-3m thick with scrub and denser than that to the southern side which is 1-2m tall with scrub. The lane becomes invaded by thorn and brambles from these hedgerows on either side. This increases nutrient levels and encourages nettles (*Urtica dioica*) and thistles (*Cirsium spp.*). Hedgerows also contain some taller elm (*U. procera*) and ash (*F. excelsior*). Most of the hedges are intact, but there are a few gaps. The surface is cut up by horses (plate 2) which is colonised by species suited to disturbed ground. But too large an increase in surface damage would be detrimental to other species.

2.2.1.3 Hedges and boundary scrub: Mainly hawthorn (*C. monogyna*), bramble (*R. fruticosus*) and small trees. Some spindle (*Euonymus europaeus*) is present. This provides habitat for species requiring nutrient rich conditions. Invasion threatens the pasture land if not kept in check. Some mature oak (*Quercus robur*), ash (*F. excelsior*) and willow (*Salix spp*) in the boundary hedges. One old oak is split-open with a rotting trunk (plate 3) which provides good habitat for invertebrates. Lianas such as Old Man's Beard (*Clematis vitalba*) are frequent. The northern boundary hedge is gappy (plate 4) and some attempt has been made to replant, but only a few trees have succeeded.

2.2.1.4 Ponds: The pond to the southwest of the site forms part of the site but the one in the northwestern corner (Cobbin's Pond) is outside the boundary of the site. The southwest pond has vegetation encroachment on the south and east sides of ivy (*Hedera helix*), bramble (*R. fruticosus*) and lianas. Teasel (*Dipsacus fullonum*) and other reeds are present. The pond may be suffering eutrophication from nutrients brought in by adjacent farmland. The presence of nettles (*U. dioica*) on the open edges confirms this. There is frequent duck weed (*Lemna spp.*) and other floating vegetation (plate 5). Damage by horses is causing extensive muddy areas rather than free drainage. However there is some evidence of pond life. A full survey of the pond is recommended. The pond in the northwest corner is suffering from similar degradation. Tall trees, mainly hawthorn (*C. monogyna*) and lianas over-hanging are shading the water. Grasses, nettles (*U. dioica*), leaf litter and mosses are invading. There is also some dead wood in the water (plate 6). A full survey of this pond is also recommended if it is to become part of the site, and any management should take this pond into consideration.

2.2.2 Fauna

A report in 1987 shows seven species of Lepidoptera, and two species of Odonata. A full faunal survey would be advisable, especially for invertebrates, as the site is too small to sustain significant populations of larger mammals. Though there is some evidence of deer and mammal activity. Adjacent woodland and scrubby hedges provide seed sources and nesting sites and anthills are frequent.

3.0 Cultural Information

3.1 History and Land Use

The site's boundaries remain unchanged since 1883 (map Appendix 2). Up to about 1983 the field, along with Epping Long Green, was used for grazing, but it must have been light or sporadic as the site shows little evidence of this. It is possible the site has not been ploughed for several hundred years (for as long as the Long Green). The green lane adjacent to the field is managed by Essex County Council Highways. The location makes it awkward for the present tenant to use the site for grazing. Previously Epping Forest District Council has applied for a management agreement or to purchase the land from the Copped Hall Estate with a view to conserving it for its wildlife value and informal public access. This would ensure that Copy Wood and Epping Long Green are not separated in the future by potential intensive agricultural practices and it would provide a habitat complimentary to the woodland and grassland/scrub of the two adjacent areas. These applications have so far not been resolved.

3.2 Public Interest

The site has light use restricted mainly to walkers using the public rights of way network. It is possibly a little too far from a car park for some visitors, but it has been used as a picnic site in the past. Education work may be limited because of its remoteness but it could be included in guided walks. Epping Forest Countrycare has managed the site in partnership with the landowner since 1989 (see below).

3.3 Past Management

Historic management of the site is unclear, but the small and restricted nature of the site would suggest a long absence of ploughing. The hedgerows and scrub have had minimal management: removal of dead elms and some scrub clearance. In 1986/7 the adjacent green lane was cleared of scrub and surfaced for most of its length to facilitate the right of way. The stream on the eastern boundary was also cleared, revetted and bridged to ease use of the bridleway..

Since 1989 the site has been managed by Countrycare who has carried out the following works through an unofficial agreement with the present tenant:

- June 1989 – half field cut, hay removed by hand raking.
- September 1989 – half field cut, hay removed by hand raking.
- August 1990 – whole field cut, hay removed from the site.
- September 1991 – whole field cut, hay stored in northeast corner of site.

Since 1992, Countrycare and volunteers have undertaken an annual hay cut on the site, the hay sometimes given to Ada Cole Stables.

3.0 Threats to the Site

The site is under minimal threat of development being surrounded by agricultural land and lying within the Green Belt. However, agricultural practices may vary, so more intensive use of the site or inappropriate management would have a detrimental effect.

Lack of management leading to scrub encroachment and enrichment is the greatest threat to this grassland site.

4.0 Aims and Objectives

4.1 Aims

- 4.1.1 Maintain and enhance the nature conservation value of Copy Wood Field.
- 4.1.2 Maintain Copy Wood Field as public open space for the enjoyment of the community and walkers for recreational use.
- 4.1.3 Promote the use of Copy Wood Field for education/guided walks.

4.2 Objectives

- 4.2.1 Maintain and enhance the biodiversity of the grassland/pasture
- 4.2.2 Arrest invasion and dominance of coarse grass to pasture area
- 4.2.3 Maintain and enhance the biodiversity of the green lane
- 4.2.4 Control scrub and bramble invasion onto pasture land and green lane.
- 4.2.5 Maintain and enhance the biodiversity of the hedgerows/boundary scrub
- 4.2.6 Improve and enhance the biodiversity of the ponds
- 4.2.7 Maintain and improve access to Copy Wood Field for the community
- 4.2.8 Promote the educational value of Copy Wood Field and organise educational visits/guided walks.
- 4.2.9 Maintain and enhance populations of notable species

5 Ideal Management Objectives

The continuation of the current management regime, cutting by pedestrian power scythes and raking by volunteers, would be ideal. Heavy machinery, which is difficult to get on site is not used, which helps to ease compaction and preserve features such as the ant hills.

5.1 Grassland/pasture

Manage the site by traditional rotational cutting or mowing as this is ideally suited to producing and maintaining a rich meadow flora, whilst discouraging growth and seeding of grasses. Cutting in mid-June to late-July would select for the early flowering vernal plants, whilst preventing the later-flowering grasses from producing seeds.

Roughly 20% of the total area should be left uncut over Winter for the benefit of the Invertebrates. Cuttings should be removed, as they would otherwise kill the underlying vegetation and form a mulch which may encourage coarse grasses. They can be left outside the meadow area (after invertebrates have had the opportunity to escape) and will provide habitat for grass snakes (*Natrix natrix*).

Because of the rough ground and the presence of anthills, mowing by pedestrian mowers is desirable. This also means late flowering plants can be selectively avoided. Some variation in the time of mowing is recommended for species diversity and stability, ie late August or early September for later flowering species. If deemed necessary and where time and money allows the site would benefit from several cuts varied throughout the year e.g. cutting half early (May) and the rest later (August) leaving 20% over winter for the invertebrates.

Any noxious weeds should be removed by hand.

5.2 Hedgerow and boundary scrub

A variety of scrub habitats of different ages could be maintained by selectively allowing the extension of internal and external hedges. Such habitats would complement the grassland and woodland ones on adjacent areas. Rotate scrub clearance. Cuttings removed, as above. Plant up northern boundary with appropriate native species to aid connectivity.

5.3 Green Lane

Cut or mow annually to eradicate bramble and scrub invasion. Manage to suppress scrub encroachment to provide easy walking and riding route and a habitat complementary to the pasture. Replant with native and appropriate species in the occasional gap. Route of bridleway across corner near pond formalised and improved by means of a causeway.

5.4 Ponds

Surrounding shading vegetation removed, stools allowed to regrow. Edge and exit drains formalised, restrict water loss to increase depth by formalising bridleway. Remove rotting vegetation from ponds.

5.5 Improve access

Presently access is informally unrestricted, but control would allow more fulfilling use by walkers and people on picnics etc while restricting access to riders of horses. This could be achieved by blocking gaps in hedges with stiles or single pedestrian-only gates

5.6 Education potential

The sites location near important rights of ways gives the site an amenity and public access function which can be planned in such a way that the conservation of the site will be available for the public benefit. Education potential is limited (because of its remoteness) but it could be included in organised guided walks. Install interpretation board describing ownership, management, conservation value and public access areas.

5.7 Survey

A full ecological flora and faunal survey should be completed and then updated regularly. Develop and maintain photographic records of site during management. Monitor usage.

6 Operational Objectives

6.1 Grassland/pasture

Year	Project	Work schedule	Responsibility	Notes
Annually	7.1.1 Mow grass	June-July	Countrycare	On rotation

6.2 Hedgerow and scrub

Year	Project	Work schedule	Responsibility	Notes
Bi-annually	7.2.1 Cut back scrub	October-February	Countrycare	Selective clearing on rotation
2010	7.2.2 Tree planting	October-March	Countrycare	Northern boundary

6.3 Green Lane

Year	Project	Work schedule	Responsibility	Notes
Annually	7.3.1 Mow lane	June-August	Countrycare	
Bi-annually	7.3.2 Cut back scrub	October-February	Countrycare	
2008	7.3.3 Tree plant	October-March	Countrycare	Occasional gaps
2008	7.3.4 Formalise bridleway	June-August	Countrycare	

6.3 Ponds

Year	Project	Work schedule	Responsibility	Notes
Bi-annually	7.4.1 Cut back over-hanging vegetation	June-August	Countrycare	
Bi-annually	7.4.2 Remove vegetation from pond	October-March	Countrycare	

6.4 Improve access

Year	Project	Work schedule	Responsibility	Notes
2008	7.5.1 Install stile/gate	April-September	Countrycare	
2008	7.5.2 Mow grass for picnic area	June-July	Countrycare	At same time as mowing pasture

6.5 Education

Year	Project	Work schedule	Responsibility	Notes
Annually	7.6.1 Organise guided walk	April-August	Countrycare	
2010	7.6.2 Install interpretation board	April-August	Countrycare	

6.6 Survey

Year	Project	Work schedule	Responsibility	Notes
2010	7.7.1 Undertake full floral survey		Countrycare	
2010	7.7.2 Undertake full faunal survey		Countrycare	

7.0 Work schedule

7.1 Five Year Plan

Project	2010	2011	2012	2013	2014
7.1.1 Mow grass	*	*	*	*	*
7.2.1 Cut back scrub – pasture area	*		*		*
7.2.2 Tree planting – north boundary	*				
7.3.1 Mow lane	*	*	*	*	*
7.3.2 Cut back scrub – green lane		*		*	
7.3.3 Tree plant – green lane	*				
7.3.4 Formalise bridleway	*				
7.4.1 Cut back over-hanging pond vegetation	*		*		*
7.4.2 Remove vegetation from pond	*		*		*
7.4.3 Collect data/monitor plants	*	*	*	*	*
7.5.1 Install stile/gate	*				
7.5.2 Mow grass for picnic area	*	*	*	*	*
7.6.1 Organise guided walk	*	*	*	*	*
7.6.2 Install interpretation board	*				
7.7.1 Undertake full floral survey	*				
7.7.2 Undertake full faunal survey	*				
Collect data/monitor faunal species	*	*	*	*	*
Revise Management Plan				*	

Copy Wood Field – O/S location

TL 422 049



Copy Wood Field

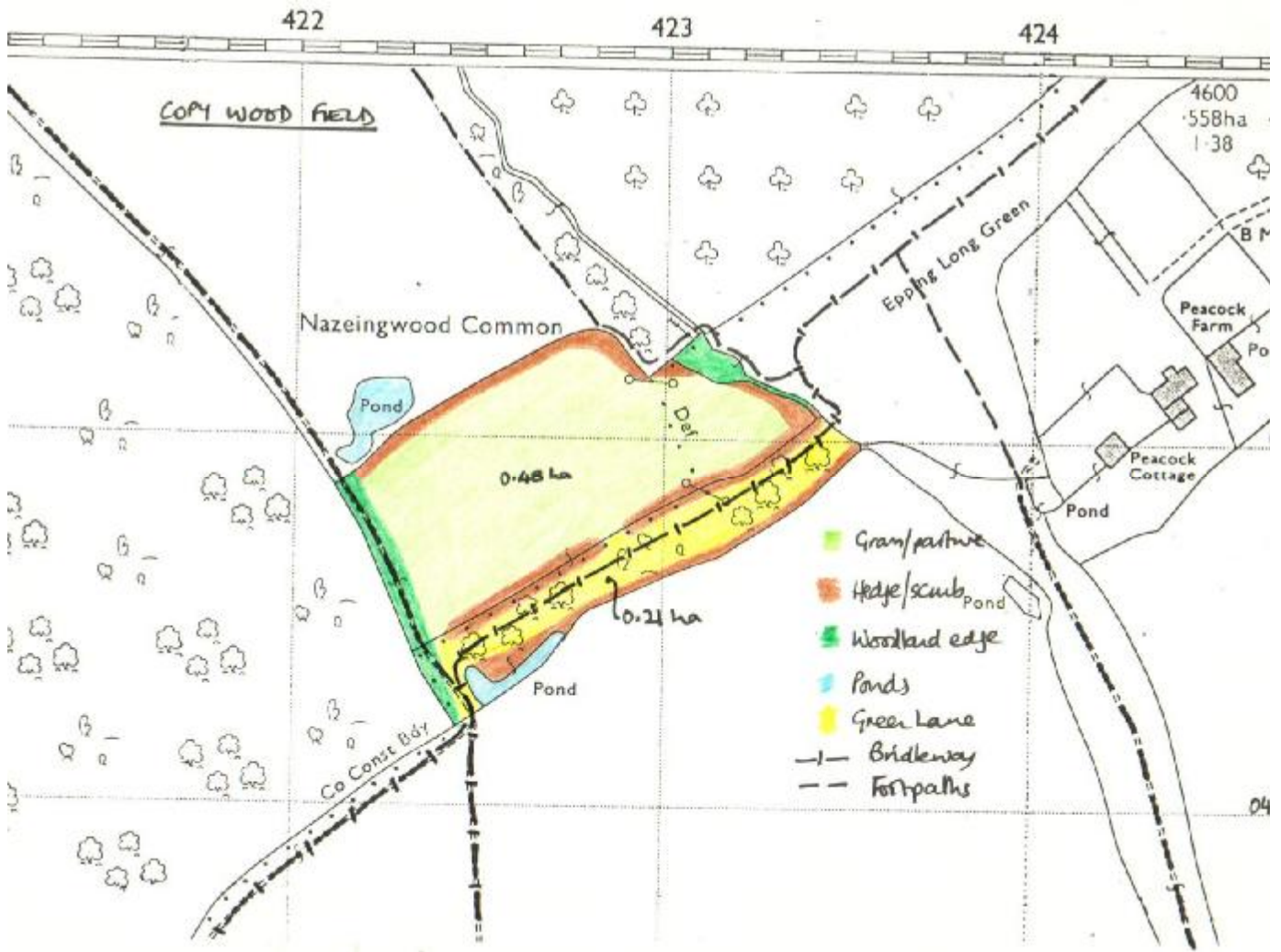
Appendix 2

Copy Wood Field 1883



Copy Wood Field

Appendix 3
Habitat Map



Appendix 4

COPY WOOD FIELD – PLATES

(Photos 1 – 6 taken April 2008)

(Photos 7 – 10 May 2009)



Plate 1: Ground flora, southeast corner



Plate 2: Green Lane from east



Plate 3: Split oak



Plate 4: Replanting northern boundary



Plate 5: Pond in southwest



Plate 6: Pond in northwest



Plate 7 : Cutting of site 2009



Plate 8 : Cutting of site 2009



Plate 9 : Hand raking of the arisings May 2009



Plate 10 : Cutting of the meadow by power scythe May 2009.