

Boreham Parish Neighbourhood Plan Evidence Base

EB2 Natural Environment

The Register of Chelmsford Local Wildlife Sites (RCLWS), which was reviewed and updated in 2016 as part of the evidence base for the latest iteration of the City Council's Local Plan, identifies six sites in Boreham Parish: The Grove, Boreham Rd Gravel Pits, Toppinghoe Hall Woods, Boreham Meads and Bulls Lodge Lagoons. The descriptions of the RCLWS sites extracted from the 2016 review are set out below. There are other local sites considered by the author, ecologist Graham Ekins and naturalist M Hansen as being of equal importance to those on the RCLWS and these sites are also included in this report.

In a number of instances the sites are situated partly in Boreham and partly in neighbouring parishes, a reminder of the need to consider Boreham's natural environment as an integral part of a wider landscape. Indeed, these individual sites are, of course, only part of what is significant about the natural environment of Boreham, the streams, notably the Bulls Lodge Brook (aka Boreham Brook), small ponds and agricultural reservoirs and willow plantations are important as are small woods and stands of trees. Field margins and hedgerows are of great significance, for biodiversity, and include for instance, surviving mature elms along a boundary at Chantry farm. Hedgerows and boundaries are also often of ancient origin and a key part of the historic environment.

Similarly, the large grounds around the Grade 1 listed buildings at Boreham House and New Hall, together with the churchyard are of great importance both for the historic and natural environment. In fact there is a strong interconnection between the natural and historic environments which continues into the modern day. In Boreham, gravel extraction and agriculture continue to impact the landscape and in some cases create additional wildlife sites. It is also important to realise that the gardens and open spaces within the modern nucleated village are very significant for maintaining biodiversity. The importance of considering the natural environment in this wider context is recognised by Natural England and various NGOs including Essex Wildlife Trust.

The diverse landscape of the parish, provides varied habitats for a wide range of species. This wildlife diversity has been recorded by Ecologist Graham Ekins and naturalist M Hansen within the village envelope and the Parish boundary for the last 3 decades and is ongoing (28th February 2020). As a result of surveys based in Church Road by the above 2 residents the following have been identified and catalogued, 836 Micro and Macro Lepidoptera (Moths), 165 Diptera (Flies), Trichoptera (Caddisflies), Coleoptera (Beetles), Bombus (bumblebees), Syrphidae (Hoverflies) and many other smaller groups such as Mollusca (Slugs and Snails). All the records have been peer

reviewed and entered on the Essex Field Club database and are open to public scrutiny. In addition records of 236 bird species recorded over the last 30 years are on the Essex Birdwatching Society Database and Mammal records including bats with the Essex Field Club and Essex Bat Group. Each of the above records has a common species name where known, the scientific name, date, finder, referee where different from finder, 6 figure OS grid reference and in most cases a jpeg image. In addition a large number of botanical records have been lodged with the Essex Botany Group.

Those species with recognised conservation status both National and Local (county & vice-county, VC19) are highlighted within each record.

New species of Lepidoptera and Diptera for the County have regularly been recorded in Boreham during these extended surveys. In addition a new species of Diptera for the UK has also been noted and the record published in the Dipterist Journal.

The Boreham records referred to above can be accessed via the **Essex Biodiversity Partnership**. More information can be found on individual species groups via the following web sites:

Essex Field Club (Invertebrates and Mammals)

<http://www.essexfieldclub.org.uk/>

Essex Bat Group Records

<http://essexbatgroup.org/>

Essex Birdwatching Society

<https://www.ebws.org.uk/>

Botany Records

Essex Botany Group (data for 1km squares across Essex and including Boreham Parish are stored by this group and are accessed when the Essex Biodiversity Partnership are contacted)

Botanical diversity of Boreham village gardens aids wildlife diversity with trees, shrubs and herbaceous plants providing an artificially enhanced biodiversity. In addition ponds and compost heaps provide niches for a wide variety of wildlife groups.

Descriptions Boreham Sites listed in RCLWS

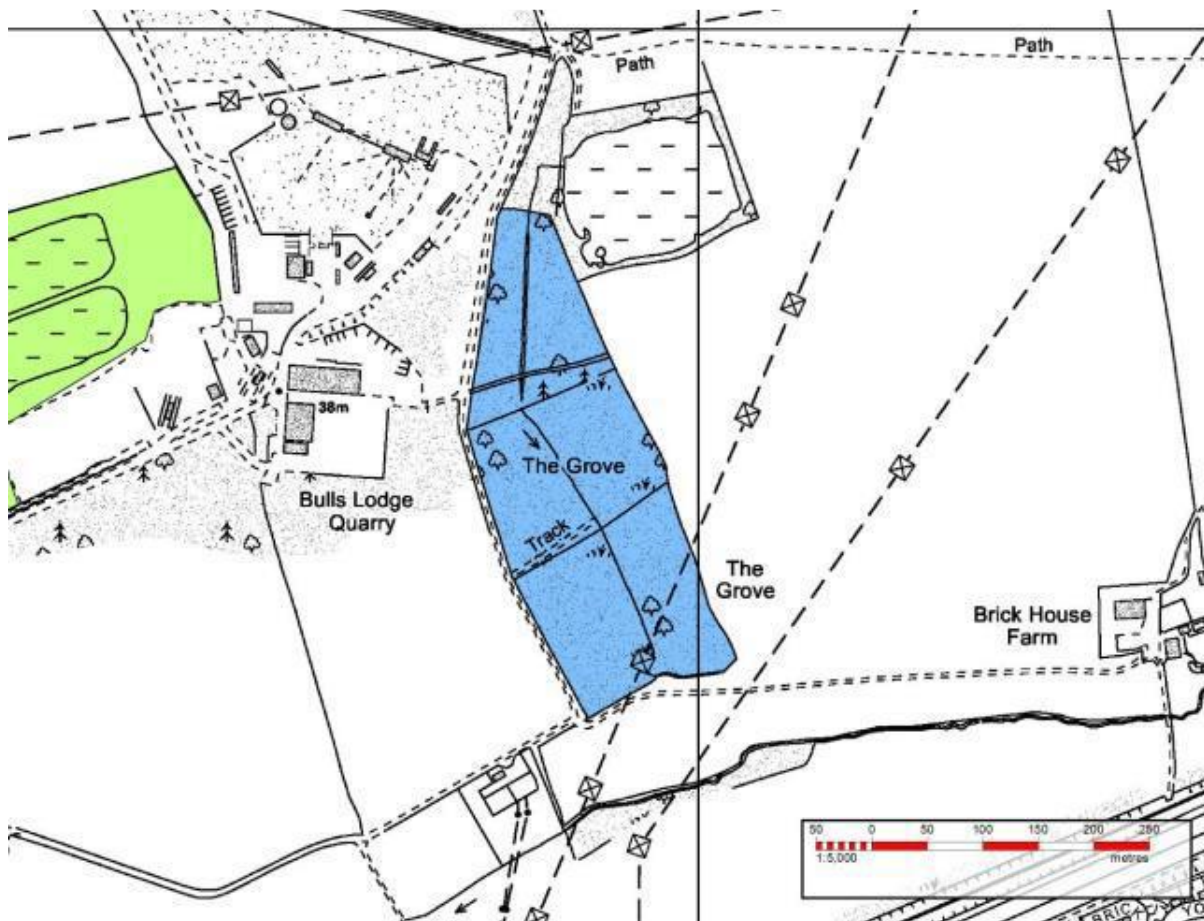
RCLWS Ch107 The Grove, Boreham (5.82 ha) TL 74891059

Grove Wood is streamside woodland with some substantial earthwork features within its borders and is little changed in outline from that on 19th century Ordnance Survey maps. Ash (*Fraxinus excelsior*) and Sycamore (*Acer pseudoplatanus*) are prominent features of this wood. Other trees recorded in this wood include Field Maple (*Acer campestre*), willows (*Salix* spp.), Pedunculate Oak (*Quercus robur*) and Hornbeam (*Carpinus betulus*) as coppice. Throughout the wood there is generally a very dense shrub layer which comprises mainly Elder (*Sambucus nigra*), Hawthorn (*Crataegus monogyna*) and Blackthorn (*Prunus spinosa*). The ground flora has a typical array of

woodland plants including Primrose (*Primula vulgaris*), Wood Speedwell (*Veronica montana*), Wood-sedge (*Carex sylvatica*).

Ownership and Access

This woodland is in private ownership and has no public access. It can be viewed from a public footpath that follows a track along the western side.



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Habitats of Principal Importance in England

Lowland Mixed Deciduous Woodland

Selection Criterion

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

Rationale

This site has a varied structure and ground flora providing valuable woodland wildlife habitat. Its status as ancient or recent woodland is uncertain.

Condition Statement

Declining

Management Issues

The continued spread of Sycamore may have a detrimental effect on the ground cover and the diversity of woodland flora and fauna.

Review Schedule

Site Selected: 1992

Reviewed: 2004 (northern tip removed); 2016

Russell Green Pit, Boreham (area unknown) TL743128



This image has been scanned from OS Explorer 183 September 2015.

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This is primarily an irrigation lagoon that is used during times of drought. At the western end is a small gravel island that accommodates the only Black-headed Gull colony in the parish. The number of pairs varies with a peak count of 145 pairs in summer 2017. The island also accommodates 2 to 5 pairs of Common Terns, a pair of Oystercatchers, Tufted Ducks, Mallard, Coot and Moorhen. During spring migration from mid-April to early May it is an important stopping off point for Arctic Terns and Little Gulls that breed in the Baltic as well as migrating waders such as Greenshank,

Redshank and Black-tailed Godwits. In summer 2019 it was also the last known nesting site in the Parish for the Critically Endangered Turtle Dove.

From late summer birds on passage that visit the pit include Green and Common Sandpipers, Shoveler and Cormorant. In winter Wigeon, Pochard, Tufted Duck, Little and Great Crested Grebes are present.

In the surrounding Blackthorn (*Prunus spinosa*) and Hawthorn (*Crataegus:sp*) scrub Bullfinch and Yellowhammer nest. In winter the hedgerows and open grassy areas are frequented by Redwing and Fieldfares, winter visitors from Scandinavia and Western Russia, amongst many other species.

RCLWS Ch113 Boreham Road Gravel Pits, Boreham (23.45 ha) TL 75631161

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Elsewhere, areas of tall swamp are characterised by Bulrush (*Typha latifolia*), sedges (*Carex* sp.), rushes (*Juncus* sp.) and willowherbs (*Epilobium* spp.) occur among scattered Willows (*Salix* sp.). South of a boardwalk that crosses the site, the sedge bed gradually gives way to damp grassland. This area is notable for the small colony of Southern Marsh-orchid (*Dactylorhiza praetermissa*), an Essex Red Data List species. Towards the southern end of the site the ground becomes drier and consequently the flora changes correspondingly. This habitat provides an attractive addition regarding diversity.

At the southern tip of this site is Porter's Grove, a narrow belt of possibly ancient woodland, which is next to the Boreham Industrial estate. Wild Service-tree (*Sorbus torminalis*) is found on the wood boundary, while the ground flora includes Bluebell (*Hyacinthoides non-scripta*), Pignut (*Conopodium majus*) and Remote Sedge (*Carex remota*).

To the far north of the site, the Holts Farm Quarry Lakes have developed a diverse habitat of scrub, swamp and open water, subsequent to the cessation of quarrying activity. Wet woodland, a Habitat of Principal Importance in England, is important for the diversity of invertebrates it supports and also for breeding and feeding birds. Areas of bare ground left by quarrying activities are also of value as important habitat for many invertebrates.

Ownership and Access

The quarry sites are thought to be in multiple ownership and used partially for recreational fishing and therefore only accessible to club members. The southern section can be viewed from the public footpath that crosses the site via a boardwalk.

Habitats of Principal Importance in England

Lowland Mixed Deciduous Woodland

Open Mosaic Habitats on Previously Developed Land

Selection Criteria

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

HC28 Small-component Mosaics

SC1 Vascular Plants

Rationale

Former quarry extraction sites such as this can develop very diverse habitat structure and floristic composition due to the variable topography and drainage patterns. This site is also of value to a great many invertebrates that the habitat will support.

Condition Statement

Good, but slow decline?

Management Issues

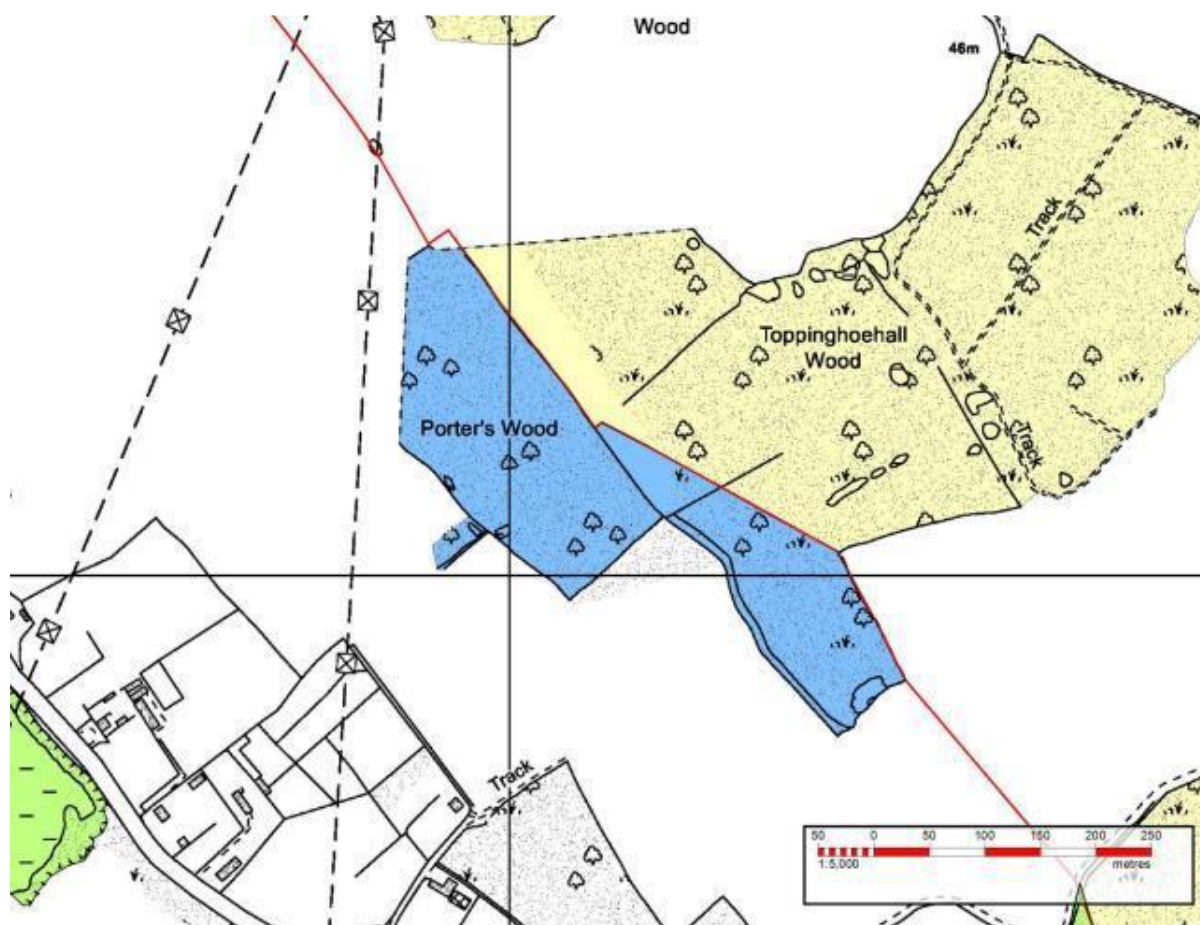
One of the features of worked-out quarry sites is the high diversity of wildlife attracted to early successional habitats. Over time, succession will tend to change the habitat conditions. Whilst this can create wet woodland habitat, which has its own intrinsic nature conservation interest, this should not totally be at the expense of other habitats that typify such 'brownfield' sites.

Review Schedule

Site Selected: 1992 (only northern part of southern section)

Reviewed: 2004 (central and northern sections added as a separate site); 2016 (sites amalgamated, plus significant boundary revisions)

RCLWS Ch116 Porter's/Toppinghoehall Woods, Boreham (part of) (6.38 ha) TL 76081207



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Porter's Wood lies fully within Chelmsford City Administrative Area, but the local authority then cuts across the adjoining Toppinghoehall Wood, so that an undefined part of this wood also lies within Chelmsford. The remainder is a LoWS within Braintree District. Hornbeam (*Carpinus betulus*) coppice and Pedunculate Oak (*Quercus robur*) standards characterise this woodland site. Ash (*Fraxinus excelsior*) is also found in the high canopy, whilst Field Maple (*Acer campestre*) is found as a sub-canopy tree. A small area of the woodland on the eastern edge of the site has previously been cleared and replanted with native trees. The ground flora has patches where Bluebell (*Hyacinthoides non-scripta*) is abundant. Other ancient woodland indicators recorded include Three-nerved Sandwort (*Moehringia trinervia*), Wood Millet (*Milium effusum*), Wood Speedwell (*Veronica montana*) and Climbing Corydalis (*Ceratocarpus claviculata*), which is found in profusion.

Ownership and Access

This site is in private ownership and does not have public access. It can be viewed from a public footpath that runs through the southern half of Porter's Wood.

Habitats of Principal Importance in England

Lowland Mixed Deciduous Woodland

Selection Criteria

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

Rationale

The site is included within the Ancient Woodland Inventory for Essex and has a species composition and structure typical of such woods. It forms part of a much larger LoWS that overlaps into Braintree District.

Condition Statement

Largely neglected.

Management Issues

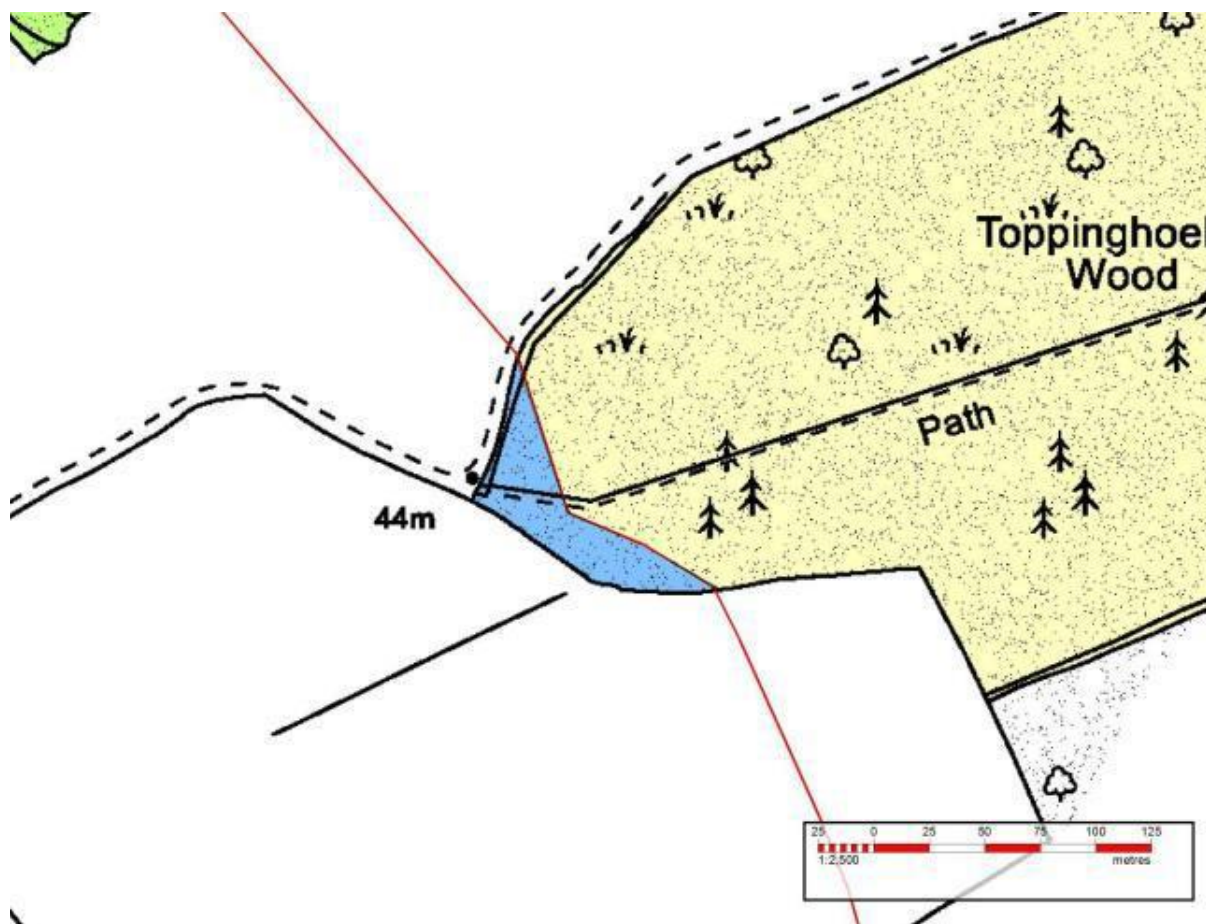
There has been some relatively recent felling and re-stocking. If high forest management is the aim here, it may lead to a very dense canopy, casting a deep shade on the layers below. This may have a negative impact upon the diversity of wildlife.

Review Schedule

Site Selected: 1992

Reviewed: 2004; 2016 (minor addition)

RCLWS Ch120 Toppinghoehall Wood, Boreham (part of) (0.3 ha) TL 76531165



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Only the extreme western tip of this large wood lies within Chelmsford, with the bulk of the wood lying within Braintree District – an unusual situation since most local authority boundaries are based on ancient landscape features, including woodland edges, rather than running through such wood unmarked by physical features. The fragment of woodland in Chelmsford has Sweet Chestnut (*Castanea sativa*), Beech (*Fagus sylvatica*) and Larch (*Larix decidua*) above an Elder (*Sambucus nigra*) shrub layer. In this area of the woodland the ground flora is dominated by Bramble (*Rubus fruticosus*).

Ownership and Access

The site is in private ownership and has no public access, other than a right of way that runs down a central track.

Habitats of Principal Importance in England

Lowland Mixed Deciduous Woodland

Selection Criterion

HC1 Ancient Woodland Sites

Rationale

The site is included within the Ancient Woodland Inventory for Essex and, when viewed as a whole, has a remnant species composition and structure typical of such woods, despite the extensive replanting.

Condition Statement

Poor.

Management Issues

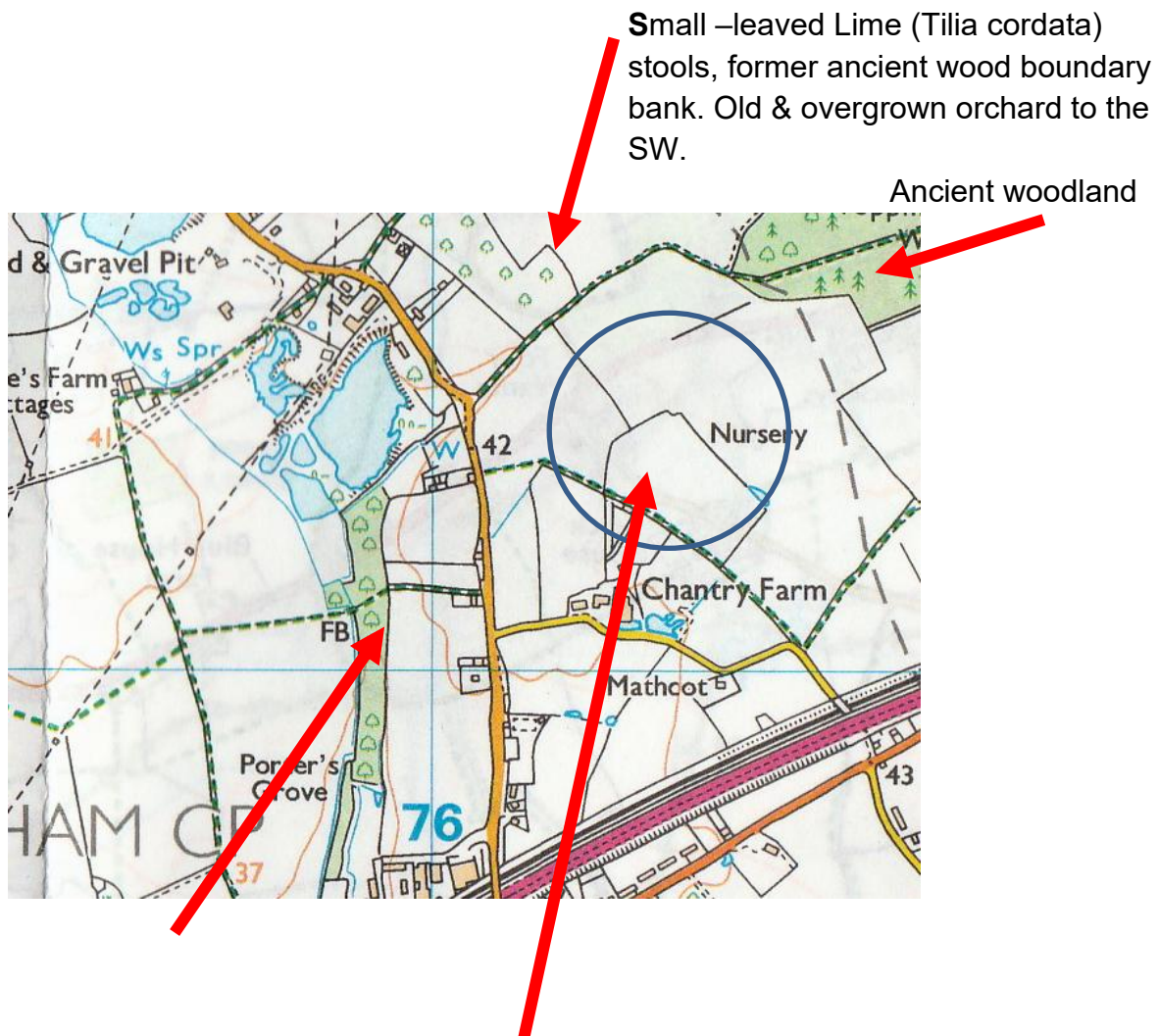
Restoration of a native, semi-natural canopy and understorey would benefit the wildlife of this site.

Review Schedule

Site Selected: 1992 (erroneously included within the Braintree District site as one unit)

Reviewed: 2004 (identified as separate site within Chelmsford); 2016

Chantry Farm area, centred on TL 7651166



Location of Pollarded Small Leaved Lime (*Tilia cordata*), one of the largest in the County and several hundred years old.

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The area to the North of Chantry Farm contains unimproved grassland, mature hedgerows and veteran trees. No environmental data has so far been found (February 2020) relating to this area.

Trifarm Pit TL764087



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Trifarm Pit was formed as the result of gravel extraction. It has been surveyed for birds regularly since 2015. Little Ringed Plover (Essex Red Data Species) nested in 2016 and 2017, this is a scarce species in Essex. Oystercatchers summer each year and bred in 2017. It is an important wintering site in the Boreham Parish for Wigeon, Tufted Duck, Pochard, Gadwall and Great Crested Grebes. During April Little Gulls and Arctic Terns are annual visitors en-route to breeding grounds in the Baltic. Passage waders recorded in 2019 included Curlew, Black-tailed Godwit, Avocet, Ruff and Redshank. Additional scarce species recorded in spring 2019 included a summer-plumaged Black-necked Grebe and a pair of Garganey.

Resident species that regularly visit include Kingfisher and Green Woodpecker.

In 2015 Turtle Doves nested in the hedgerow to the south of the pit. This is a National and Essex Red List species.

During the winter Merlin and Peregrine Falcon are recorded regularly, the former are rare inland. In addition Raven and Red Kites sightings are steadily increasing.

RCLWS Ch125 Boreham Meads, Boreham (23.86 ha) TL 76700864

To the north side of the River Chelmer between Black Bridge and Little Baddow Mill Lock lies a large block of grassland. This was ploughed in the early 1990s, but has subsequently recovered. Species of interest recorded from this area include Ragged-Robin, Cuckooflower (*Cardamine pratensis*) and three ERDL species: Meadow Saxifrage (*Saxifraga granulata*), Pepper-saxifrage (*Silaum silaus*) and Dropwort (*Filipendula vulgaris*), this last species at possibly its only native location within Essex.

This area was planted with Cricket Bat Willows (*Salix alba caerulea*) in winter 2018. As these saplings grow the light reaching the ground flora will reduce and so the botanical diversity will correspondingly decrease.

The area to the North is now a Cricket Bat Willow plantation and is an important site for nesting Willow Warbler, Chiff-chaff, Reed Bunting and Song Thrush. In 2017 Tree Pipits set up a territory. This is now a very rare nesting summer visitor in the County and is Red-listed for the UK and Essex.

This area includes the Boreham Special Roadside Verge (TL 76230867 to 76270861), which has been designated due to the presence of Common Meadow-rue (*Thalictrum flavum*), a rare Essex plant that is included on the ERDL.

Ownership and Access

This site is in multiple ownership. Public access is restricted to a series of footpaths that cross the various sections, plus the towpath along the adjacent navigation channel.

Habitats of Principal Importance in England

Lowland Fen

Coastal and Floodplain Grazing Marsh

Hedgerows

Selection Criteria

HC10 River Floodplain

HC11 Other Neutral Grasslands

HC14 Lowland Fen Vegetation

Rationale

This site comprises a series of floodplain habitats, albeit modified by modern management in places. It forms part of a chain of important wildlife habitats along the river Chelmer that augment the riverine habitats.

Condition Statement

Variable.

Management Issues

The eastern section has undergone recent heavy disturbance associated with some tree felling work and part of the former site has been lost to car parking associated with activities at Paper Lock.

Review Schedule

Site Selected: 1992 (in part)

Reviewed: 2004 (significant additions and deletions); 2016 (minor boundary revisions)

River Chelmer between Paper Mill Lock in the east to Stonham Lock in the west. (TL777090 to TL752083).



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Between 2014 and 2019 the Dragonflies (*Odonata*) have been surveyed along this section of the River Chelmer between April and September, rare or scarce species identified have included Willow Emerald (*Chalcolestes viridis*), a new UK species in 1992, Hairy Dragonfly (*Brachytron pratense*), Scarce Chaser (*Libellula fulva*), a nationally scarce species and White-legged Damselfly (*Platycnemis pennipes*). Scarce Essex Hoverflies *Tropidia scita* associated with Phragmites and *Spharophora taeniata* associated with meadow grassland have been recorded along the River Chelmer.

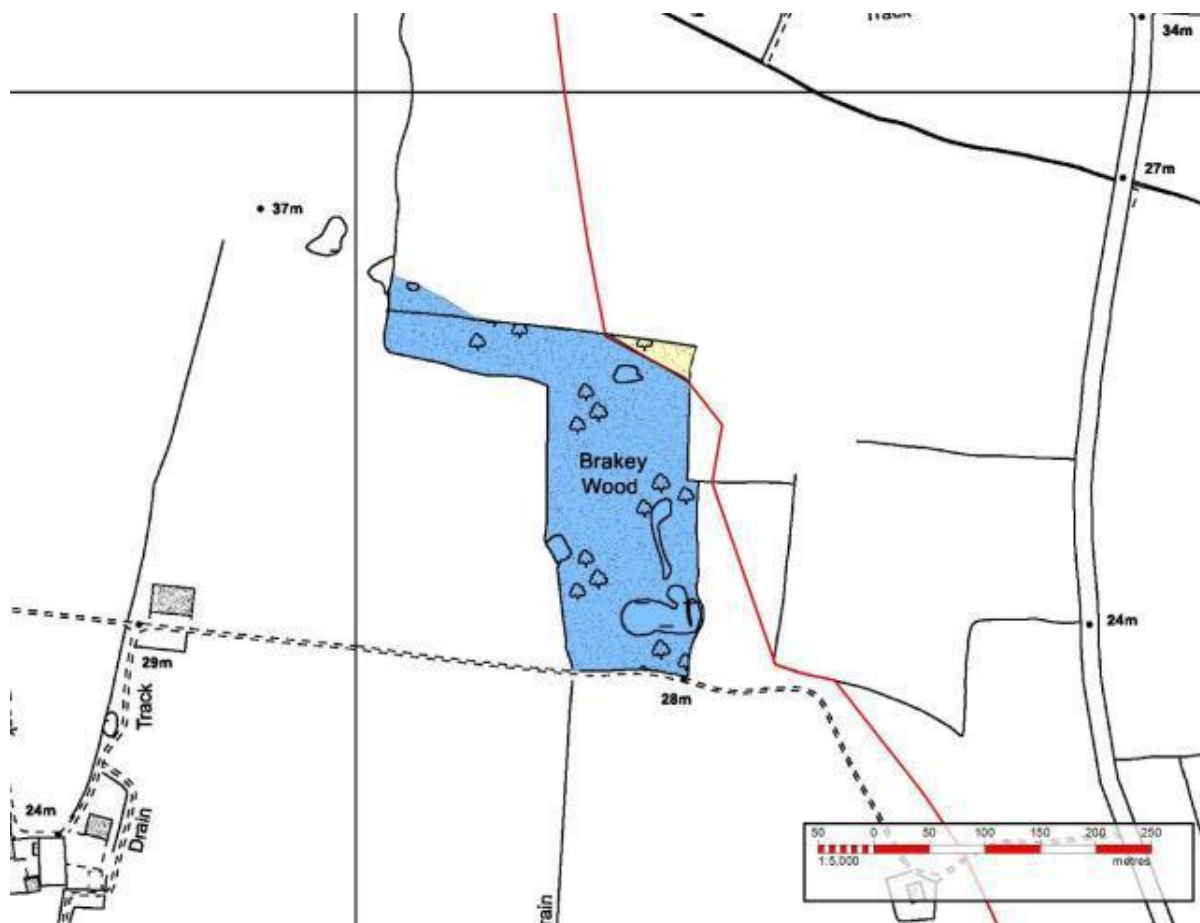
The last known site (July 2015) in Essex for White-clawed Crayfish occurred in the vicinity of Little Baddow Lock.

2 moth surveys in July and August 2018 to the east and west of Little Baddow Bridge indicate that the former migrants L-Album Wainscot and White-speck are now established locally. The total catch was of 97 species and included the scarce Micro *Phetheochroa inopiana* as well as several species of Caddis (*Trichoptera*) including the largest in the UK, *Phryganea grandis*.

A full survey of breeding bird in this area of the R. Chelmer was carried out in 2016 with several territories of Reed Bunting, Reed and Sedge Warbler, Whitethroat and Blackcap identified. Grey Wagtails were also found nesting in the weir by Little Baddow Lock and in the two subsequent years.

Otters bred to the west of Paper Mill Lock in 2016 and they are regularly recorded on the river. In February 2020 an Otter was photographed fishing in a large pond in a garden on the south-east side of the village near the Old Rectory.

RCLWS Ch128 Brakey Wood, Boreham (part of) (4.52 ha) TL 77210965



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This site, whilst not designated as ancient wood within the English Nature Inventory, has a structure and composition that indicates an ancient status. Hornbeam (*Carpinus betulus*) coppice and Pedunculate Oak (*Quercus robur*) standards are the main tree species, with a small amount of Ash (*Fraxinus excelsior*) coppice. The shrub canopy includes Hawthorn (*Crataegus monogyna*) Midland Hawthorn (*C. laevigata*) with Spindle (*Euonymus europaeus*) also found. The far north-western corner of the wood has many young Wild Service-trees (*Sorbus torminalis*). The ground flora includes Bluebell (*Hyacinthoides non-scripta*) found in greatest quantity in the northern half of the wood. Other recorded ground flora species indicative of ancient woodland are Early Purple Orchid (*Orchis mascula*), Wood Spurge (*Euphorbia amygdaloides*), Moschatel (*Adoxa moschatellina*), Goldilocks Buttercup (*Ranunculus auricomus*), Wood-sedge (*Carex sylvatica*), Primrose (*Primula vulgaris*) and Wood Speedwell (*Veronica montana*).

This wood had nesting Blackcap and Garden Warbler in summer 2019. These are both summer visitors. Resident Great spotted Woodpecker and Common Buzzard also nested.

Curiously, the local authority boundary cuts across the north-east corner, so that this undefined part of the wood is a Braintree LoWS (Bra99).

Ownership and Access

This site is in private ownership with no public access. It can be viewed from a public footpath that runs alongside the southern edge of the wood.

Habitats of Principal Importance in England

Lowland Mixed Deciduous Woodland

Selection Criterion

HC1 Ancient Woodland Sites

Rationale

Although not documented as an ancient wood, the structure and composition suggests that this site is very largely, if not totally, ancient.

Condition Statement

Neglected coppice.

Management Issues

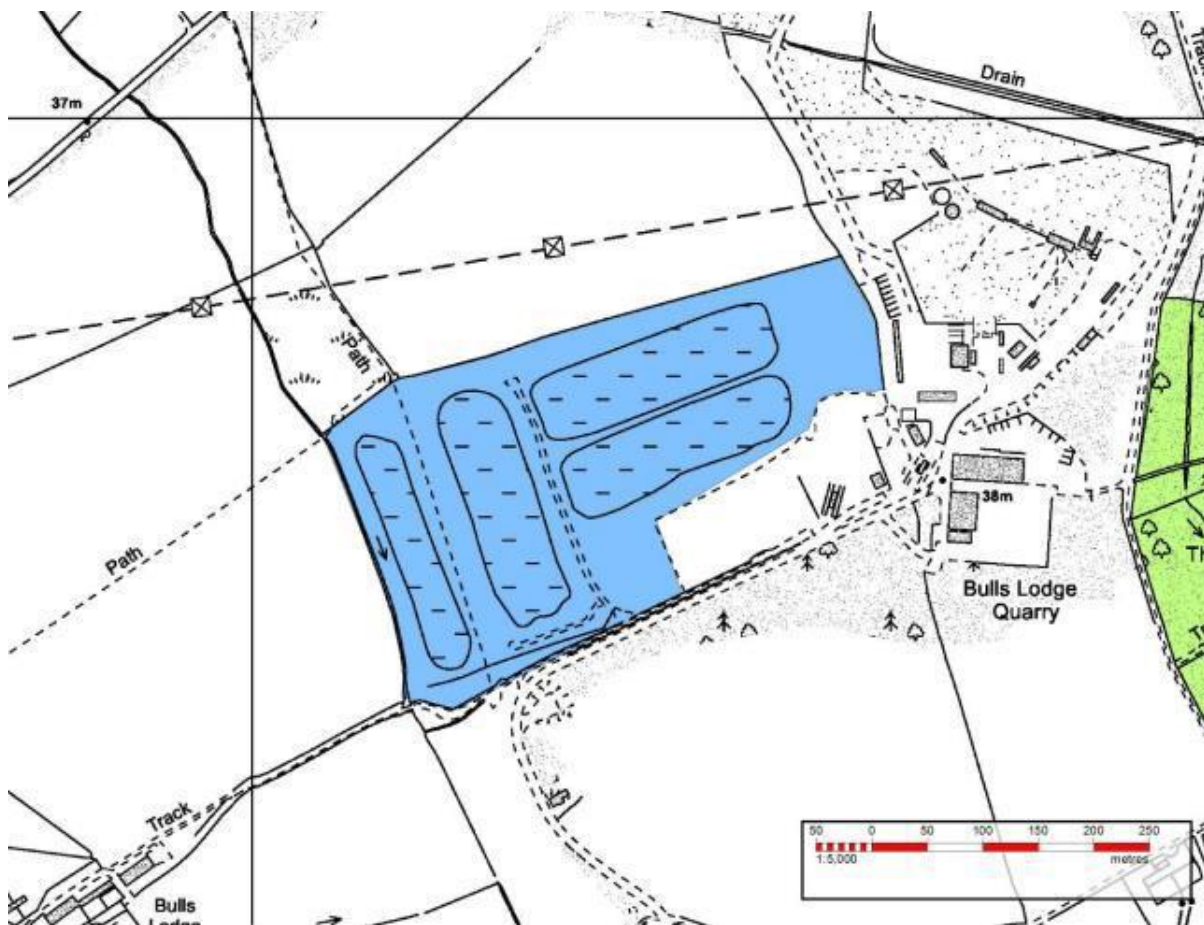
The overgrown coppice, especially that of Hornbeam, will be casting a dense shade, to the detriment of the ground layer.

Review Schedule

Site Selected: 1992

Reviewed: 2004; 2016 (small addition)

RCLWS Ch176 Bulls Lodge Lagoons, Boreham (10.69 ha) TL 74291068



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This series of water management lagoons associated with the adjacent mineral workings epitomises the ecological value of brownfield land, with an intricate mosaic of habitats. Some of the open bodies of water are fringed by Common Reed (*Phragmites australis*), whilst other parts have linear wet woodland in the form of willow (*Salix* spp.) scrub. Areas of flower-rich, albeit weedy, rough grassland provide good foraging habitat for a wide range of invertebrates and areas of bare ground, including some steep, sandy banks, provides nesting habitat and hunting areas also for invertebrates.

Ownership and Access

The lagoons are owned by the operators of Bulls Lodge Quarry (Hanson Aggregates). Public access is restricted to a public right of way that crosses the western half of the site.

Habitats of Principal Importance in England

Reedbed (in part)

Eutrophic standing waters (in part)

Wet Woodland (as fringing willow scrub)

Open Mosaic Habitats on Previously Developed Land

Selection Criterion

HC28 Small-component Mosaics

Rationale

Whilst none of the habitat components (reedbed, willow scrub, 'brownfield land', eutrophic lakes) is of exceptional size or quality, in combination they comprise an intricate and varied habitat mosaic that is capable of supporting a very wide range of flora and fauna.

Condition Statement

Stable.

Management Issues

Some active management may be needed in the long term to maintain this mosaic of habitat types, to combat natural succession.

Review Schedule

Site Selected: 2016

Western Mead (TL750084)



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This wet marsh site has been planted on the southern half with Cricket Bat Willow (*Salix alba caerulea*). The ground flora under the trees has a high density of Lady's Smock (*Cardamine pratensis*), the food plant of Orange Tip butterfly. The northern section of Western Mead was ploughed in 2004/5 but has since reverted to a semi-natural flora which is very diverse.

In winter it is the most important site in the Parish for wintering Snipe and Teal and the only location in Boreham Parish for Cetti's and Garden Warbler. Additional summer visitors include Cuckoo, Willow, Sedge and Reed Warbler as well as Reed Bunting. The scrubby habitat along the northern edge was the last site for Nightingale in Boreham Parish.

In summer 2019 important invertebrate records included the rare Bumblebee *Bombus ruderatus* and the recent colonist Willow Emerald Damselfly (*Chalcolestes viridis*).