



**CASTLE POINT BOROUGH  
LOCAL WILDLIFE SITES REVIEW  
2012**

*November 2012*

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Title of Report	Castle Point Borough Local Wildlife Sites Review 2012
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Report Status	Final
Date of Issue	23 <sup>rd</sup> January 2013

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**INTRODUCTION**

**General Introduction**

This report has been prepared by Essex Ecology Services Ltd. (EECOS), the ecological consultancy of the Essex Wildlife Trust, for Castle Point Borough Council. It comprises the results of a comprehensive review of Local Wildlife Sites (LoWS) within Castle Point Borough and includes a register of all those sites henceforth considered to be Local Wildlife Sites (LoWS) within the Borough.

**Objectives of Survey**

The objectives of this survey were as follows:

To review all existing LoWS;

To survey and assess previously identified Potential LoWS (PLoWS);

To consult special interest groups in order to identify any new candidate LoWS and to survey and assess those sites;

To survey a number of potential development locations.

The purpose of these objectives is to provide a sound evidence base to inform Castle Point Borough Council's forthcoming Local Plan.

**Background**

**History of LoWS in Castle Point Borough**

In 1992 a report was published by Essex Wildlife Trust setting out a network of Sites of Importance for Nature Conservation (SINCs) within Castle Point District, as it was at the time. The sites were chosen following a district-wide survey of semi-natural habitats carried out during 1990 to 1992 as part of a county wide Phase 1 Habitat Survey. They were intended to represent all of the land that was of county significance for nature conservation, although at that time they were almost solely designated on the strength of their plant communities, with little reference to animal species.

In 1994 Castle Point District Council employed the newly incorporated EECOS to undertake a repeat of the field survey work to inform an update of the SINC network. This

allowed a number of additional sites that were over-looked during the original survey, largely as a result of constraints of access and methodology, to be added.

In both of these surveys the criteria used were based on those developed by Ratcliffe for the then Nature Conservancy Council (which has now become Natural England) that were used for the selection of SSSIs. The way in which the criteria were applied for each site was not made clear, and in reality, remained largely subjective.

In 2002 the Council commissioned EECOS to repeat the phase 1 habitat survey and to use the information gathered to review the SINC network. By this time, government guidance had led to a change in name from SINC to “Wildlife Site”. A bespoke set of selection criteria was used during this review, focussing principally on UK and Essex Biodiversity Action Plan habitats, with additional reference to Ratcliffe’s criteria for those habitats not covered by the BAP process. For the first time, the criteria used for each Site were noted within their descriptions although, inevitably, some subjectivity remained within the method. For the first time the possibility of a site being selected on the strength of one or more key species was included.

In 2007 the Council again commissioned EECOS to review the Wildlife Site network, although this time there was no repeat of the phase 1 habitat survey, as it was considered that land use was unlikely to have changed significantly within the intervening period. Further changes in central Government guidance meant that these sites of county importance were now known as Local Wildlife Sites. For the first time, a specific set of Essex LoWS selection criteria were used, although they were in an unpublished, early format, under development by EECOS during the course of LoWS reviews in a number of Essex districts. These criteria were still focused on UK BAP habitats, but also included a wide range of species criteria.

In July 2012 the UK Post-2010 Biodiversity Framework was published, the main result of which is a shift from a UK BAP to separate BAPs for England, Wales, Scotland and Northern Ireland. This requires a change in terminology such that any previous reference to UK BAP Priority Habitats and Species will now be replaced by England BAP Priority Habitats and Species. The LoWS Selection Criteria will need to be reviewed to accommodate this change, but the numbering system will remain the same. As far as

Essex is concerned there is no material change to the contents of the BAP, with all relevant species and habitats still included under the same names. In order to ensure its relevance into the future, the term England BAP has been used in this report.

### Planning Policy and Guidance

Planning policy in the UK is now principally described in a single document, the National Planning Policy Framework (NPPF), which was published in March 2012. The framework reinforces the pre-existing planning system set out in planning law, of evidence based Local Plans developed in consultation with the communities that they cover. It states that, in preparing a Local Plan, local planning authorities must ensure that adequate, up to date and relevant evidence has been used. For the natural environment this should include an assessment of existing and potential components of ecological networks (para. 165). Ecological networks are defined as linking sites of biodiversity importance, implying the need for the identification of sites of biodiversity importance, which is an adequate description of LoWS.

The need for this review and the role of its results within the planning system are therefore clear.

Further discussion about the impacts of planning policy on the results of this review are included within section 3.2. A consideration of policy bearing in mind the results of the review is included in section 4.1, together with recommendations of any further policy steps that it might be appropriate for the Council to take.

### Methods

This current survey has involved site visits to each of the pre-existing LoWS in order to check their boundaries, habitats, species, condition and quality in relation to the latest LoWS Selection Criteria document, published by Essex Wildlife Trust on behalf of the LoWS Partnership in 2010 (accessible at [www.localwildlifesites.org.uk](http://www.localwildlifesites.org.uk)). A list of the selection criteria, with a brief description where necessary, is included within Annex 1<sup>1</sup>. In addition, the Potential LoWS (PLoWS) identified during the 2007 LoWS Review were also revisited and subjected to the same assessment.

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<sup>1</sup> Please see section 1.3.1 regarding the change from UK BAP to England BAP and the future impact of this on the Selection Criteria document.

A number of local nature conservation organisations and other interested parties were consulted in the early stages of the survey. They were asked for information or comments concerning the existing LoWS and also asked to put forward any other sites that they considered may meet the selection criteria and could, therefore, be added to the network. With this information, and with the help of Google Earth and Bing aerial photography, and Ordnance Survey mapping, EECOS carried out a brief assessment of the whole Borough in an attempt to locate any other parcels of semi-natural habitat that may have been previously overlooked. All of these candidate sites were also visited and assessed against the selection criteria.

Castle Point Borough Council provided a map illustrating 18 parcels of land that have been promoted as potential development locations. All of these land parcels were visited and surveyed for their habitats and their potential to support legally protected species. The resulting information is intended to assist the Council in identifying the ecological data that would be expected to accompany any future applications for planning consent in these areas. As a matter of course the LoWS selection criteria were used as a means of assessing the ecological significance of the habitats within these sites.

In order to facilitate site access during the field survey work, EECOS surveyors were authorised under Section 13 of the Planning and Compulsory Purchase Act 2004 to make enquiries and carry out site observations in order to allow the Council to discharge its duties.

### **Limitations**

Notwithstanding the authorisation provided by the Council, there are a number of scenarios when it would be neither appropriate nor legal to try and access sites for ecological observation. Such situations include private residential gardens, sites with livestock, and sites where attempting access would result in unacceptable damage to fences, crops or other assets. Where direct access was not possible, sites were observed as well as they could be given any such constraints, including by the use of binoculars to identify plant species at distance.

For many sites there is still a lack of data available regarding invertebrate populations and other species information. Every reasonable effort has been made to obtain the additional information necessary to fully assess existing and proposed sites, but this information will be continually updated and may affect the status of some sites.

The scope of the review limited the process, in many cases, to a single visit to each site. While efforts were made to visit each site at the most appropriate season, inevitably some features of some sites were not visible at the time of the visit. It is hoped that additional consultation with local naturalists has filled many such gaps in the knowledge base.

## **RESULTS**

### **Summary of results**

As a result of this review, seven sites totalling 140.8 hectares have been added, one site totalling 3.8 hectares has been deleted, eight sites have been extended by a total of 101.9 hectares and seven sites have been reduced by a total of 15.7 hectares. Seventeen sites are unchanged. The end result is that there are now 40 LoWS in Castle Point Borough totalling 872.1 hectares.

Key additions have come as follows:

through the inclusion of non-SSSI inter-tidal habitats, for which there has not previously been a selection criteria;

through the addition of a significant extent of sea wall grassland habitat that was not adequately represented in previous grassland selection criteria;

through the inclusion of sites on the strength of invertebrate survey data;

through improved access to, and data from, sites previously identified as PLoWS.

Two larger reductions in LoWS area have been offset by extension of the same site (*i.e.* CPT4 and CPT25), but in general, losses of LoWS habitat have been minor, averaging a little over two hectares per site. The largest unbalanced losses were all approximately 4-5 hectares. Losses resulted from:

agricultural improvement of grassland;

arable cultivation of grassland;

expansion of gardens;

construction of a new road;

lack of appropriate management.

In addition, the stricter application of LoWS selection criteria also resulted in minor reductions.

Planning consent has been granted on at least two LoWS prior to the completion of this report. These Sites are fully included in the network and Site descriptions, as until development actually takes place they still satisfy the selection criteria. A situation could be envisaged where construction does not take place under the existing consent, either

through an application to modify it, or through its expiry, and so it is necessary, and appropriate, to retain the Sites to properly inform any future planning situation.

### **Citations and Site Numbering**

In order to maintain continuity and avoid confusion when considering old LoWS information, the numbering of LoWS has been preserved from the 2002 and 2007 registers, although the prefix letters have been changed to 'CPT', from 'CP'. In this way, it will be possible to tell from the Site code quoted that this is the review to which reference is being made. As a result, the numbers of the current LoWS are not entirely sequential, those numbers where the LoWS has been deleted being retired from use rather than re-applied to newly identified Sites. In the one instance where a previously deleted Site has been reinstated (CPT27), the previous number for that Site (CP27, used in 2002) has been re-applied.

The citations in Annex 2 are broadly similar to those from recent review documents. They include a map to illustrate the approximate boundaries of the Site, although these should be subject to interpretation on the ground by a suitably qualified ecologist rather than being treated as set in stone. On the maps, nearby LoWS are also shown in order to give some idea of the Site's context. There follows the Site number and name with an approximate area in hectares and an Ordnance Survey grid reference that identifies the notional central point of the Site.

The Site's habitats are then described with reference to the plant species that characterise the communities present as well as those of above average conservation significance. Noteworthy animal species are also mentioned, although in the case of Sites where good invertebrate survey data is available, this is restricted to a representative selection of the more nationally significant species.

Below the Site description are lists of the England BAP habitats that are present and of the selection criteria that have justified the Site's inclusion in the LoWS register, with an explanation of the rationale behind the use of those criteria. A brief statement of the ecological condition of the Site at the time of the survey visit is included together with a consideration of the issues relating to the Site's management, from an ecological perspective. A note is also made as to whether or not the Site lies within one of the Living

Landscape areas identified by Essex Wildlife Trust (further explanation of this is given in section 3.3 of this report).

At the end of the citation is a record of the date when the Site was first identified as a LoWS together with the dates when it was subsequently reviewed. The Site code numbers that applied at each of these stages is included.

### **Changes to LoWS Network**

Below is a summary list of the changes made to existing LoWS as a result of this review. In many cases boundaries have been remapped to fit with the up to date Ordnance Survey base maps used during this review. These changes have not been noted in this section, as they are not material to the decisions made.

The list includes two Sites that were formerly included within other LoWS (CPT41 and CPT42), which have been separated because their connections to the other Sites were somewhat artificial.

CPT1 Deleted in 2007

CPT2 Montgomery School Meadow – deleted in this review due to agricultural improvement.

CPT3 Rushbottom Lane Flood Pound – unchanged.

CPT4 West Canvey Marshes – extended to include inter-tidal habitats in line with revision of selection criteria; one field removed following arable cultivation.

CPT5 Canvey Village Marsh – Roscommon Way extension removed; sea wall added.

CPT6 Benfleet Sewage Works – extended to include intertidal habitats, sea wall and unimproved meadows to west.

CPT7 North Benfleet Hall Wood – unchanged.

CPT8 Fane Road Meadows – unchanged.

CPT9 Kents Hill Wood – unchanged.

CPT10 Coombe Wood – boundary adjacent to Lake Drive re-mapped.

CPT11 Mount Road Wood – unchanged.

CPT12 Vicarage Hill – areas in south western and eastern corners taken as garden have been removed. There may be further changes to this Site in the future as an attempt is being made to turn a large section of the grassland into garden. At present the Site has been physically disturbed, but could recover if managed appropriately and so for now it is retained.

CPT13 Reeds Hill Pasture – unchanged.

CPT14 Thundersley Glen – adjustment of boundary with CPT15.

CPT15 Jervis Wood Lane – adjustment of boundaries with CPT14, CPT17 and CPT18.

CPT16 The Chase Paddocks – unchanged.

CPT17 Shipwrights Meadow – adjustment of boundary with CPT15.

CPT18 Shipwrights Wood – adjustment of boundary with CPT15.

CPT19 The Lake, Canvey – minor extension.  
 CPT20 Coopers Wood – minor reduction.  
 CPT21 Thundersley Great Common Wood – unchanged.  
 CPT22 Nine Acre Wood – separated from Wall Wood (now CPT41); minor loss to garden.  
 CPT23 Thundersley Plotlands – removal of sections now used as gardens; removal of re-surveyed grassland; minor additions. It is understood that planning consent has been granted for part of this Site, but at present the habitat remains and so those sections to be lost are still included.  
 CPT24 West Wood; unchanged.  
 CPT25 Castle Farm – Separated from Hadleigh Castle Grassland (now CPT42). This Site could only be accessed at the end of the survey because of security during the Olympics. Small sections removed as a result of construction impacts and other areas included. Planning consent for further development has been approved, but it is judged that this will not result in any further loss of area.  
 CPT26 Cottage Plantation and Rag Wood – unchanged.  
 CPT27 Hadleigh Marsh Borrow Dyke and Sea Wall – reinstated following deletion in 2007.  
 CPT28 Little Haven/Tile Wood Complex – added fields at hospice and Tylerset Farm because of grassland communities.  
 CPT29 Two Tree Island West – extended to include whole of western half of island and renamed accordingly.  
 CPT30 Coxall Wood – unchanged.  
 CPT31 Pound Wood – minor extension.  
 CPT32 Deleted in 2007.  
 CPT33 Oakwood Reservoir – significantly reduced through habitat changes.  
 CPT34 Belfairs Park Wood – unchanged.  
 CPT35 Thorneycreek Fleet – minor adjustments.  
 CPT41 Wall Wood – Separated from CP22, additional small woodland block added.  
 CPT42 Hadleigh Castle Grasslands – separated from CP25.

## **New LoWS**

Below are listed the sites that have been identified as LoWS for the first time. These include previous PLoWS, sites identified as candidates from the desk search and a site proposed by a consultee.

CPT36 Northwick Farm and Sea Wall – New Site, formerly PLoWS2; selected for invertebrate population and habitats.  
 CPT37 Benfleet Marsh – New Site, part of PLoWS3; selected for remnant grazing marsh structure and flora.  
 CPT38 Brick House Farm Marsh – New Site, identified from aerial photos; selected for remnant grazing marsh structure and flora.  
 CPT39 Benfleet Creek and Sea Wall – New Site identified from aerial photos and maps; selected for inter-tidal habitat, sea wall grassland and other habitats.  
 CPT40 Thundersley Brickfields – New Site, proposed by consultee; selected for invertebrate population and plant species. It is understood that part of the Site may be lost to development, but the habitat remains at present.  
 CPT43 Badger Hall Woods – formerly PLoWS4; selected for England BAP woodland habitat.

## **Potential LoWS**

Below are listed all of the Potential LoWS identified during the 2007 LoWS Review, with a summary of the result of their reassessment. Some of these Sites have been upgraded into LoWS, in which case they are included in section 2.4.

PLoWS1 Thorney Bay – habitat has deteriorated through coastal defence works, but with potential for recovery; retained as a PLoWS1.

PLoWS2 Northwick Farm Landfill Site – selected as CPT36.

PLoWS3 Hope's Green Ditches – part selected as CPT37, remainder removed from PLoWS list.

PLoWS4 Badger Hall Woods – selected as CPT43.

PLoWS5 Land off Manor Trading Estate – habitat continues to deteriorate, but could be restored; and retained as PLoWS5 and adjacent secondary woodland added.

PLoWS6 Hadleigh Marsh Sea Wall and Borrow Dyke – restored as CPT27.

PLoWS7 Old Eastwood Road – habitat continues to deteriorate through neglect and degradation; removed from PLoWS list, but parts retained in PLoWS11.

The following are new PLoWS, identified during this review, but the assessments of which were inconclusive. These Sites are detailed in Annex 3 with information about the work needed to establish their qualification against the selection criteria.

PLoWS8 Grasmere Road Pastures

PLoWS9 Glyders Meadow

PLoWS10 Braeside Farm Pastures

PLoWS11 St Michael's Road Fields

PLoWS12 Canvey Heights Country Park

## **Other Sites Surveyed**

A number of other sites were assessed, either because they were proposed by consultees, or because they were identified as candidate sites by examination of maps and aerial photos. Some were visited and as a result added to the LoWS network, in which case they are included in section 2.4 above and detailed in Annex 2. Some have been selected as PLoWS, if they were visited and an initial assessment proved to be inconclusive, or they could not be visited. These sites are listed in section 2.5 above and detailed in Annex 3. Other sites were visited, fully assessed and, with the information collected, it was determined that they did not satisfy any selection criteria. These sites are listed below and detailed in Annex 4.

PLoWS3 Hope's Green Ditches

PLoWS7 Old Eastwood Road

Fane Road Wood

Great Russell Head Farm

### **Potential Development Locations**

Annex 5 contains descriptions of each of the areas identified as likely to be subject to development proposals. For each location, a map illustrates the extent of the area, while its main habitats are briefly described in the accompanying text. Consideration is given to the ecological information that should be expected to accompany any planning application, including requirements for targeted species surveys. The locations' position within the ecological networks of the Borough are also described, with strategic suggestions for possible enhancement of biodiversity that could reasonably be required through condition or planning obligation should consent be granted.

## **DISCUSSION**

### **Legislation and Planning Policy**

The NPPF is intended to set out all government planning policy in a single document and the implications of this document in the results of the review and in the way that it is applied are set out below. There is an inherent caveat to this section, in that planning guidelines may change to some extent with the publication of a review of planning guidance, which is in preparation at the time of writing. This is likely to lead to the cancellation of some existing guidance and the publication of new documents.

In addition to the NPPF, the Localism Act 2011 also has some impact on the way the results should be viewed. The main impact of this legislation, in relation to planning, is the introduction of a duty to co-operate, requiring issues that are cross-boundary to be strategically planned for by local planning authorities in co-operation. The cross-boundary implications of this review, in terms of the LoWS themselves, are set out in section 3.2.

The NPPF sets out the three roles that the planning system should perform in delivering its purpose of achieving sustainable development (para. 7):

Economic; ensuring that sufficient, appropriate land is available for development to support growth and innovation and to coordinate requirements for developments such as infrastructure;

Social; providing housing to meet the needs of local communities and creating a favourable environment in which to live, with access to local services;

Environmental; protecting and enhancing the natural, built and historic environment, including improving biodiversity and addressing issues of waste, pollution and climate change.

It states the need for these three roles to be integrated within every planning decision and stresses the need for positive improvements including “moving from a net loss of biodiversity to achieving net gains for nature” (para. 9). The interaction of these three roles is fundamental to the Living Landscapes concept described in further detail in section 3.3, and in turn Living Landscapes could establish a framework in which the principles of NPPF can be demonstrably applied.

Within the list of core planning principles (para. 17) that should underpin the creation of Local Plans and individual planning decisions are the requirements that planning should:

- contribute to conserving and enhancing the natural environment;
- allocate land for development that is of lesser environmental value;
- encourage the use of previously developed land, provided that it is not of high environmental value.

By working to a defined set of selection criteria, an attempt has been made to establish up front which are the sites in Castle Point Borough that should be considered to be of higher environmental value and should therefore be protected in the creation of the Local Plan and in individual planning decisions. Inherent in this process is the identification of previously developed sites that are considered to be of high environmental value.

This concept is taken further in paragraph 110, which states that Local Plans should allocate land with the least environmental or amenity value for development. This review does not attempt to extend the assessment of nature conservation value below the threshold set by LoWS selection criteria, but there is reference to this issue within the sections on Potential Development Locations.

NPPF also includes the assertion that Local planning authorities should maintain the character of the undeveloped coast (para. 114). It could be argued that little, if any, of the Borough's coast could be considered undeveloped, because of the extensive man-made coastal defences, but at the same time the sea walls and their associated grassland habitat provide a very distinctive character. Significant sections of the coast have been added to the LoWS network in this review and it is hoped that this will support this requirement.

The Natural Environment and Rural Communities Act 2006 (NERC) places a duty on local planning authorities to have regard to the conservation of biodiversity in England when carrying out their normal functions, which includes setting planning policy, creating Local Plan documents and making individual planning decisions. The LoWS habitat selection criteria are largely based upon those habitats identified as England BAP Priority Habitats and further consideration of those present within the Borough is included within section

3.4. The Essex BAP was reviewed in 2011 and the habitats included now mirror those of the national BAP.

### **LoWS Network**

Paragraph 117 of the NPPF states that, to minimise impacts on biodiversity, planning policies should plan for biodiversity at a landscape scale, across local authority boundaries. It goes on to say that planning policies should identify and map components of local ecological networks including internationally, nationally and locally designated sites and areas identified by local partnerships. This requirement is covered within this and the following section.

There is a reasonable geographic spread of LoWS across the Borough, although there are also some distinct clusters:

West Canvey; CPT4, CPT5, CPT6, CPT36, CPT38, and including Canvey Wick SSSI and Vange and Fobbing Marshes SSSI;

Benfleet Creek; CPT27, CPT29, CPT39, and including Hadleigh Marshes and Benfleet Creek within the Benfleet and Southend Marshes SSSI;

Thames Terrace; CPT 12, CPT13, CPT22, CPT25, CPT42, and including Hadleigh Downs within the Benfleet and Southend Marshes SSSI;

Thundersley Woods; CPT10, CPT11, CPT14, CPT15, CPT17, CPT18, CPT20 and CPT 43;

Daws Heath Woods; CPT24, CPT26, CPT28, CPT30, CPT31, CPT33, CPT34, and including Hadleigh Great Wood SSSI, Dodds Grove SSSI and Garrols Meadow SSSI.

The largest gaps where there are no LoWS are within the densely urban areas of South Benfleet, Hadleigh and Canvey Island. The north western corner of the Borough, between the A130 and A127 is largely rural in character, but does not contain many LoWS. This may reflect a difficulty in translating the value of plotlands for wildlife in terms of the LoWS selection criteria.

Figure 1 on Page 19 illustrates the distribution of LoWS in Castle Point Borough in relation to the LoWS in the adjoining local authority areas and in relation to sites with national or international designations.

The degree of ecological connection between Castle Point Borough and its neighbouring LoWS is controlled by the character of the features that have come to define the boundaries. The northern boundary of the Borough, with Rochford District, is marked by the A127, a dual carriageway trunk road that effectively serves as an ecological barrier. Beyond Rayleigh and Eastwood is a cluster of plotland and woodland LoWS that could compliment the complex of Daws Heath woodlands, but in reality there is a marked separation between these two areas.

The western boundary with Basildon Borough, to the north of the railway, is marked by the A130, another ecological barrier, while there is a lack of LoWS in the North Benfleet and Bowers Gifford areas. The landscape here is open, but agricultural with poor structural connectivity in ecological features. To the south of the railway there is a strong connection between the Boroughs and with Thurrock in the form of the West Canvey, Bowers, Pitsea, Vange and Fobbing marshes complex, centred around Holehaven, Vange and East Haven Creeks. Much of this large expanse of coastal habitat is now under conservation management.

To the east of the Borough there are urban and green space links with Southend-on-Sea Borough. The CPT34 Belfairs Park Wood and CPT29 Two Tree Island West LoWS continue into the neighbouring Borough as So1 Two Tree Island West and So3 Belfairs Golf Course. CPT42 Hadleigh Castle Grasslands and So2 Belton Hills are almost contiguous, the latter extending the previously noted Thames terrace cluster of LoWS that begins in the west at CPT12 Vicarage Hill.

The consequences of these cross border links are reflected to some extent in the following section on Living Landscapes.

### **Living Landscapes**

The Essex Wildlife Trust is promoting a series of significant landscapes for wildlife across the county under the title of “Living Landscapes”. They embrace important landscape features, such as river valleys and estuaries, and clusters of connected LoWS and other sites recognised for their conservation significance, but they also include the areas in between, including residential and industrial areas. The areas have been highlighted as

those parts of the county where there would be most benefit for the natural environment from measures to improve the quality, extent and connectivity of semi-natural habitats.

Fundamental to the purpose of these Living Landscapes is the idea that, where there is a landscape that is functioning well ecologically, there are significant benefits to local people and communities and the environment can support a flourishing local economy. This embraces the idea that we should be encouraging people to live in, work in and enjoy their local environment harmoniously. As an example, having accessible corridors of semi-natural habitat through which species are able to disperse easily could also provide routes that allow local people to get to work or go shopping without having to resort to motor vehicles. There is a considerable overlap between the ideas underpinning Living Landscapes and the green infrastructure requirements of larger modern developments.

Considering the economic role of planning, the NPPF states that within local plans local planning authorities should identify priority areas for environmental enhancement, in addition to those for economic regeneration and the provision of infrastructure (para. 21). It could be contended that the work that lies behind Living Landscapes has resulted in a series of priority areas and it may be appropriate for the Council to use these areas as the focus of action to satisfy this requirement. This is considered further in section 4.1.

Essex Wildlife Trust has initiated an Award scheme to recognise high quality projects that meet the three aims of being good for wildlife, good for people and good for the local economy.

The Living Landscape areas identified by EWT are spread right across the county, and four include parts of Castle Point Borough, overlapping into adjoining local authority areas (see Figures 2 and 3, on pages 20 and 21). These are discussed below with reference to their associated LoWS, with a suggested addition. Whilst shown with precise boundaries on these maps, in reality these are only indicative, and there is no reason why any area of land lying close to, but seemingly outside, a Living Landscape boundary cannot be included in any relevant future project. Equally well, the principles behind Living Landscapes could be applied to any parcel of land, whether within one of the identified areas or not.

Not surprisingly, the Living Landscape areas have a lot in common with the clusters of LoWS set out in 3.1 above.

### Wat Tyler Complex

This area covers the complex of coastal marshes around Holehaven, Vange and East Haven Creeks, which include RSPB sites at West Canvey Marshes (CPT4), Bowers Marsh and Vange Marsh, and Essex Wildlife Trust's Fobbing Marsh. Within Castle Point Borough, it also includes CPT5 Canvey Village Marsh, CPT6 Benfleet Sewage Works, CPT 36 Northwick Farm and Sea Wall and the Canvey Wick SSSI. The primary focus of the area is on the coastal grazing marsh and intertidal habitats, but there is also considerable invertebrate interest.

Much of the area is already under conservation management, but there remain sections within the Borough that could be restored to provide greater conservation significance or brought under positive conservation management. These include the areas in CPT2 outside of RSPB control, CPT5 Canvey Village Marsh, CPT6 Benfleet Sewage Works and CPT38 Brickhouse Farm Marsh. The latter is outside the currently stated boundary, but should be included given its new LoWS status.

### Hadleigh Castle and Marshes

This is an area of two halves, with coastal habitats mostly to the south of the railway line and mosaics of dry grassland, scrub and woodland to the north of it. It could be argued that this should be two separate areas, the northern part expanded to include CPT12 Vicarage Hill and the southern part including CPT39 Benfleet Creek and Sea Wall and the rest of Benfleet Creek to Canvey Point.

A significant part of the area is already designated and/or in conservation management including the Benfleet and Southend SSSI and CPT29 Two Tree Island West. CPT25 Castle Farm and CPT42 Hadleigh Castle Grasslands are under the management of public bodies, but are in need of improvement. For CPT25 Castle Farm this should come through management plans that form part of the Olympic Legacy development, which has been granted planning consent. Opportunities for restoration exist on the agricultural section of Hadleigh Marsh, on the ridge between CPT12 Vicarage Hill and Hadleigh Downs and linking Belton Hills to the CPT42 Hadleigh Castle Grasslands.

### Hadleigh and Daws Heath Complex

This area is made up of a mosaic of woodland and grassland, of varying character, with an acidic influence to both in parts. The core of the area lies in the CPT24 West Wood, CPT28 Little Haven nature reserve, CPT31 Pound Wood, Great Wood and Dodd's Grove SSSI and CPT34 Belfairs Park Wood.

Many of the key sites are under conservation management, but opportunities exist to strengthen the ecological links between them and to expand the woodland sites.

### Southend Seafront and Maplin Sands

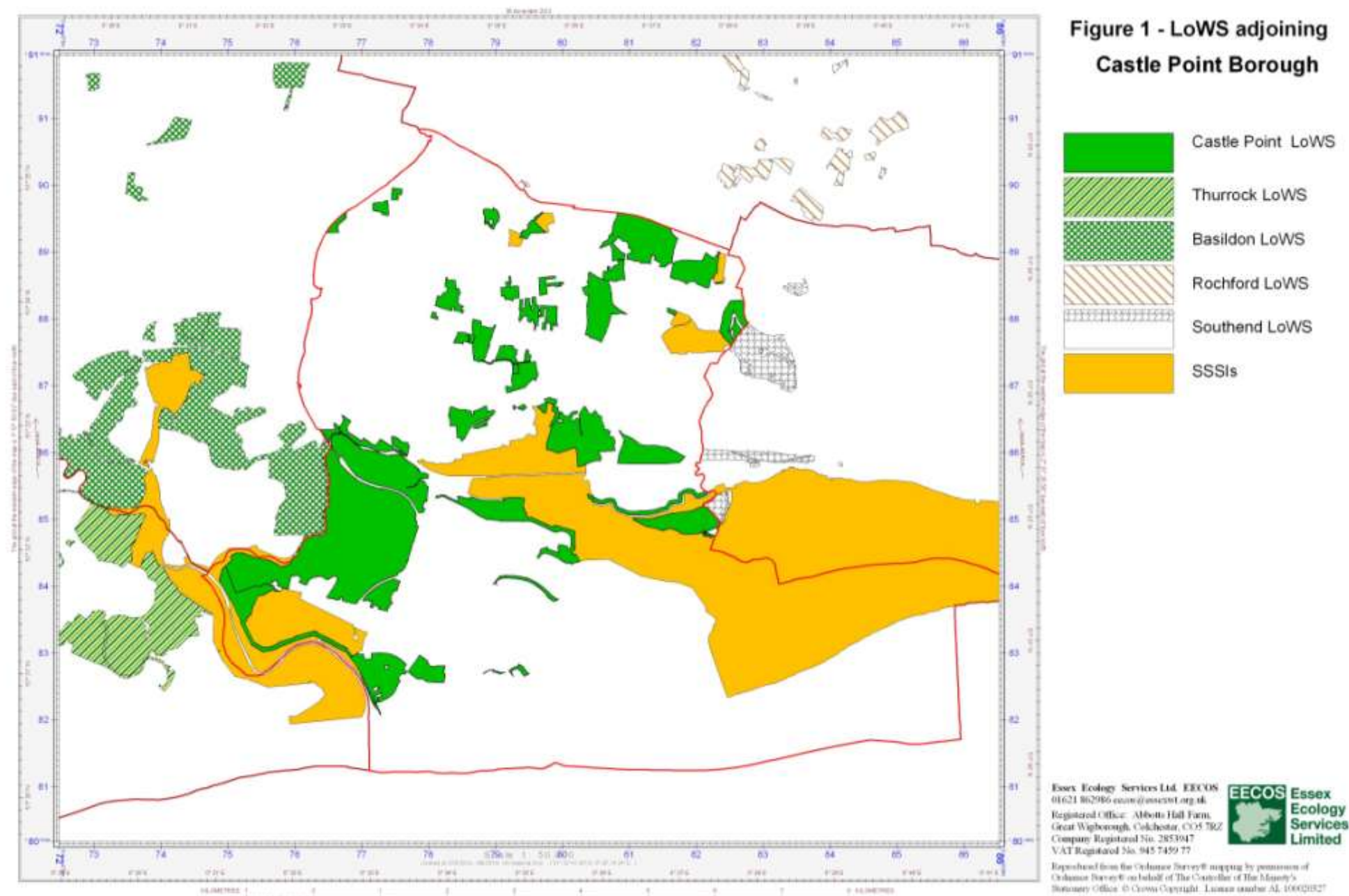
This massive area takes in a small part of the Borough, but is dominated by the Benfleet and Southend Marshes and Foulness SSSIs. It doesn't fit well with Castle Point and the boundary between it and the Hadleigh Castle and Marshes Living Landscape area should probably be adjusted.

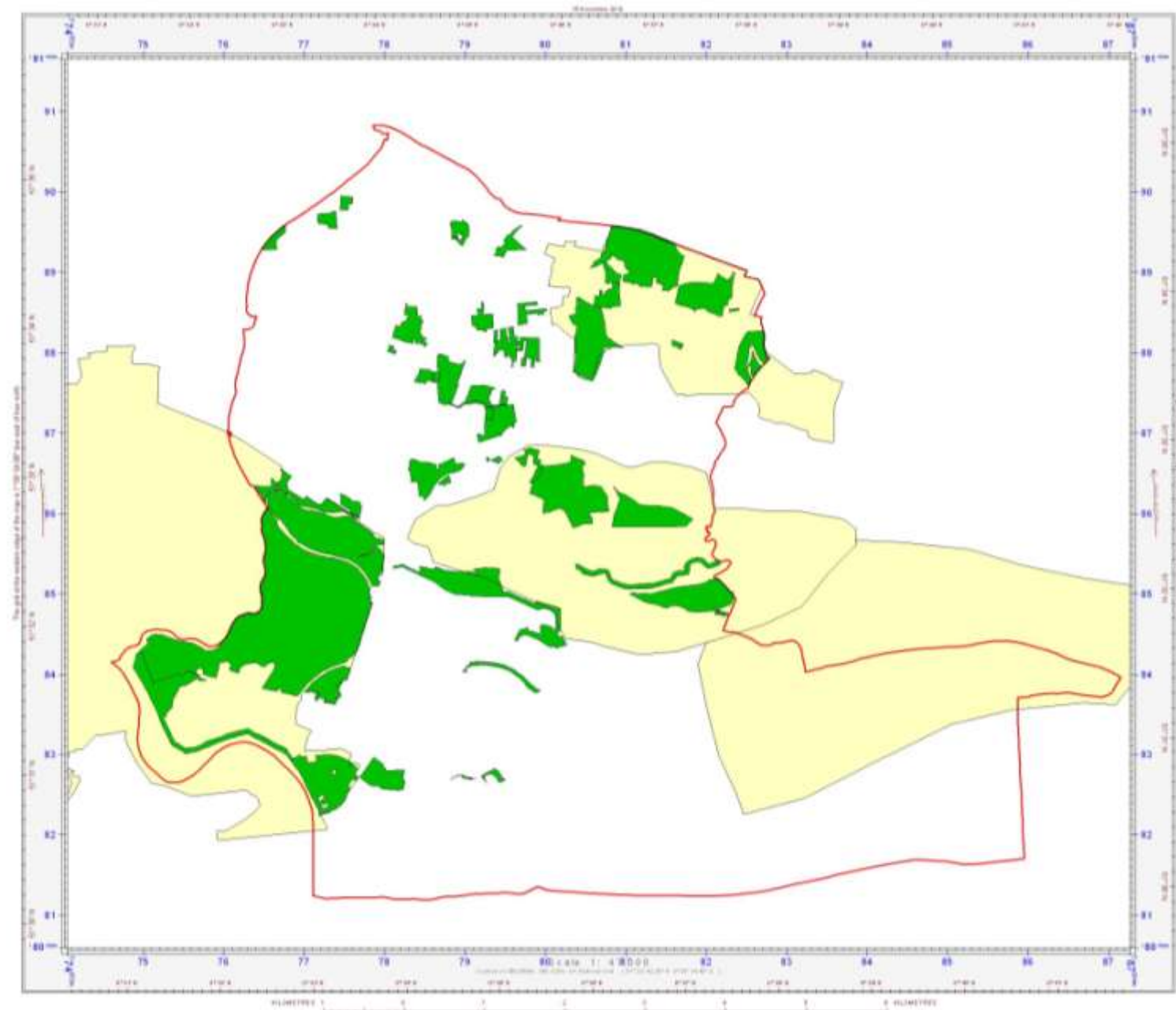
### Thundersley Woodlands

Although rather more small-scale than other Living Landscape areas, there would be local significance in the recognition of an additional area running from CPT18 Shipwrights Wood in the east through to CPT10 Coombe Wood in the west, taking in CPT11 Mount Road Wood, CPT14 Thundersley Glen, CPT15 Jervis Wood Lane, Badger Hall Woods, CPT17 Shipwrights Meadow and CPT20 Coopers Wood.

These areas share an historical connection and provide a largely contiguous block of ancient woodland with younger woodlands showing an ancient influence. The area is somewhat constrained by residential development, but some opportunities exist for improved management and expansion.

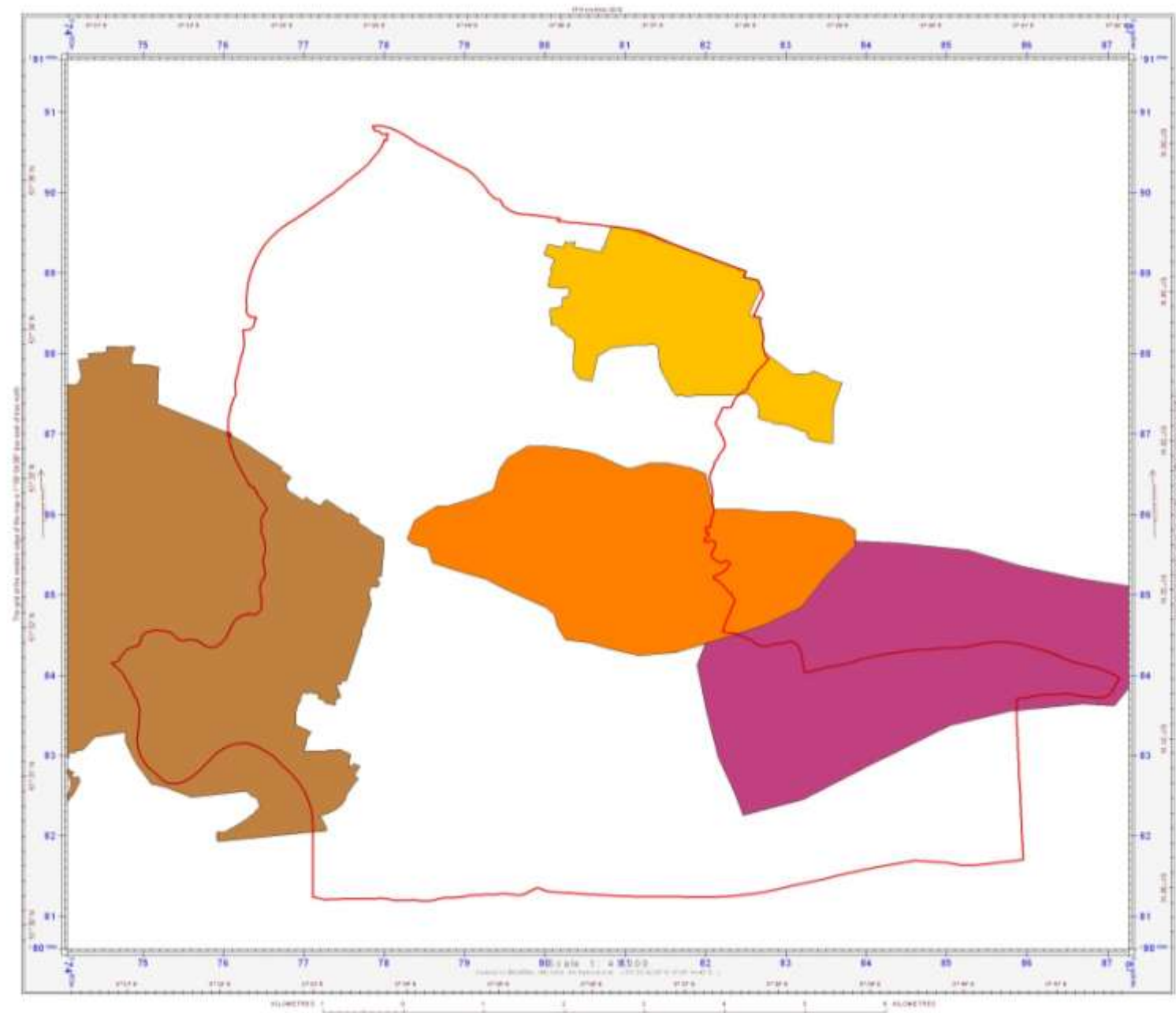
**Figure 1 - LoWS adjoining  
Castle Point Borough**





**Figure 2 - Distribution of Castle Point  
LoWS in Living Landscape Areas**

- Boundaries - Wall
- Castle Point Local Wildlife Sites
- Living Landscape Areas



**Figure 3 - Castle Point Borough  
Living Landscape Areas**

- Hadleigh Castle and Marshes
- Wat Tyler Complex
- Hadleigh and Daws Heath Complex
- Southend Seafront and Maplin Sands

## **Habitats**

### **Grassland**

Nationally and locally, agriculturally unimproved grassland habitats are under more threat than any other habitat type. It was clear from this review, and from others being carried out around Essex, that the quality of grassland habitats continues to decline. The majority of open grassland in Castle Point Borough, at least that away from a coastal influence, consists of horse-grazed pastures of varying sizes, many of which lie within a plotland context (see 3.4.3 below). Many of these pastures would formerly have been overlooked in the selection of LoWS, but there has been a need to “lower the bar” in order to allow the best representative, flower-rich grasslands to be included within the LoWS network.

Previously the presence of one or several key indicator plant species would have been required for a grassland to qualify; these species include Pepper Saxifrage (*Silaum silaus*), Sneezewort (*Achillea ptarmica*), Green-winged Orchid (*Orchis morio*), Yellow Rattle (*Rhinanthus minor*) and Meadow Saxifrage (*Saxifraga granulata*). During current reviews, sites with a good overall species diversity are being included without any of the key indicators and, fortunately, this approach is supported by the inclusion in the England BAP Lowland Meadows Priority Habitat of all grasslands that fit the National vegetation Classification MG5 hay meadow community. It should be noted that this community will tend to develop into an MG6 agricultural pasture or MG1 unmanaged pasture community if not managed appropriately, and many of the meadows within Castle Point Borough that are no longer horse-grazed, or otherwise managed, show this tendency. Grassland in this condition can be readily restored through the application of appropriate management effort and so should be retained and considered as LoWS until such time as they are beyond restoration.

The key remaining Lowland Meadow grasslands in the Borough: fields within the Benfleet and Southend Marshes SSSI, Garrolds Meadow SSSI, CPT8 Fane Road Meadows, CPT16 The Chase Paddocks and CPT17 Shipwrights Meadow. Many are relatively small.

Small areas of acid grassland are found on the northern edge of the Borough, within the plotland areas, including CP23 Thundersley Plotland and CP40 Thundersley Brickfields, on pylon rides within the CPT28 Little Haven/Tile Wood Complex, in CPT33 Oakwood Reservoir and on Hadleigh Great Common SSSI. The England BAP Lowland Dry Acid

Grassland Priority Habitat is an inclusive one, covering all acid grassland swards characterised by the presence of species such as Sheep's Fescue (*Festuca ovina*), Common Bent (*Agrostis capillaris*) and Sheep's Sorrel (*Rumex acetosella*). Acid grassland is typically species-poor compared to neutral grasslands, but the distinctive communities include county significant plant species such as Eyebright (*Euphrasia nemorum*), Milkwort (*Polygala vulgare*) and Heather (*Calluna vulgaris*), which provide some overlap with the Lowland Heathland England BAP Priority Habitat.

Dry grasslands on the north bank of the Thames valley, formed on a series of gravelly terraces that mark previous courses and heights of the river, provide conditions that encourage a range of Nationally Scarce plants to grow and which also support diverse and nationally significant assemblages of invertebrates. They form a subset of acid grassland and typically support similar plant species. Examples are found within the CPT25 Castle Farm and CP42 Hadleigh Castle Grasslands LoWS, as well as within the Benfleet and Southend Marshes SSSI. The key plant species include Hartwort (*Tordylium maximum*), Bithynian Vetch (*Vicia bithynica*), Deptford Pink (*Dianthus armeria*), Hairy Vetchling (*Vicia hirsuta*) and Pale Flax (*Linaria biennis*).

The recovery of declining grasslands should be seen as a priority action in attempts to enhance and recreate priority habitats for biodiversity.

### Woodland

Castle Point Borough is well known for its woodlands and excellent information is available concerning their history, principally from Oliver Rackham's *The Woods of South-east Essex* (Rackham, 1986). Unfortunately, this book also clearly shows the historic loss of ancient woodland through the urban encroachment that overcame south Essex in the post-war period. The larger ancient woodlands that remain in the Borough are for the most part under sympathetic conservation management and their future should be secure, albeit with increasing recreational pressure. However, there is a lack of commercial activity that could provide a local economic value to the Borough's woodland, with the exception of Essex Wildlife Trust activities around Daws Heath.

Both of the common woodland types that describe the England BAP Lowland Mixed Deciduous Woodland Priority Habitat in Essex, NVC communities W8 and W10 on neutral

to base-rich and acid soils respectively, are present within the district, with some showing characteristics of the more unusual W16 Birch-Oak woodland.

The Borough contains a significant number of larger woods, including CPT24 West Wood, CPT31 Pound Wood, CPT10 Coombe Wood and the Great Wood and Dodd's Grove SSSI. However, a number of smaller ancient woodland fragments also remain, particularly CPT9 Kents Hill and CPT41 Wall Wood, and these are still under pressure from development, many of them increasingly enclosed within residential areas and with a shadow of their former ecological value.

All areas that can be identified as predominantly of ancient origin, by documentation, land form or species composition, have been selected as LoWS, with more recent secondary woodlands, such as at CPT26 Cottage Plantation and CPT7 North Benfleet Hall Woods, also selected if they show the right community type and structure.

Hedgerows is another England BAP Priority Habitat, defined as any hedgerow consisting of more than 80% cover of woody species native to the county, with no requirement for species diversity or for age. While there are undoubtedly hedgerows within the Borough that qualify, only one LoWS, CPT15 Jervis Wood Lane, has been selected using the corresponding criteria, because of its clear linear function. Significant networks of high quality hedgerows in a matrix of semi-natural habitats are largely missing from the Borough, although there could be some comparisons with plotland.

### Wetland

Two specific wetland England BAP Priority Habitats are found within the Borough: Ponds and Reedbed. Five LoWS have been selected that contain a significant enough extent of reed for the appropriate criteria (HC15) to be used. Four of these are on Canvey Island and the fifth is CPT27 Hadleigh Marsh Borrow Dyke and Sea Wall. The most significant is CPT19 Canvey Lake, but even this is relatively small in relation to more significant Essex reedbeds.

The qualifying criteria for Ponds cover a broad spectrum of features including marginal or aquatic plant communities and the presence of rare or otherwise significant species. This

could have led to a large number of ponds qualifying for consideration as LoWS, but in reality little systematic data is available to provide a sound basis for designation.

### Plotland

One of the most distinctive landscape features of south Essex are the plotlands, mostly created after the First World War on unproductive agricultural land to give city dwellers an opportunity to establish a new life in the country. They were established just as agricultural methods were intensifying and before the rapid industrialisation of farming that followed the Second World War. As a result, despite the introduction of a range of exotic, garden species, the habitats that make up plotland retain an unimproved quality that has encouraged a diverse wildlife assemblage, especially so as many were abandoned and reverted to a natural state.

Plotland is characterised by a varied mosaic of often very regularly shaped habitat blocks including horse-grazed pastures, rough grassland, even-aged stands of scrub, and woodland of varying ages, the oldest approaching 100 years of age. Within this matrix there are often field ponds, the overgrown products of old hedge systems, scattered veteran trees and tumbledown orchards. Small-scale variations in soil type and surface geology create a variety of community types within each habitat.

Plotlands seldom support genuinely rare species, most of which are specialists with adaptations to specific habitats or environmental conditions. However they do provide a refuge for those species that were once common, but have shown dramatic declines as a result of the loss of opportunities within the farmed landscape. These species include reptiles, butterflies, woodland plants such as Sanicle (*Sanicula europaea*) and Broad-leaved Helleborine (*Epipactis helleborine*), and birds such as Bullfinch and Song Thrush.

There are few remaining blocks of plotland habitat within the urban part of Castle Point Borough, the most significant being either side of The Chase in Thundersley (including CPT23 Thundersley Plotlands) and to the south of Bread and Cheese Hill (including CPT9 Kents Hill Wood and CPT11 Mount Hill Wood). A significant extent remains in the north of the Borough taking in the area east of the A130, south of the A127 and extending south as far as Church Road (including CPT8 Fane Road Meadows and CPT40 Thundersley Brickfields).

It is likely that plotlands are undervalued within the LoWS network, as it is difficult to justifiably identify the varied mosaics of habitat in a robust way.

### Coastal

The coast exhibits a strong influence over a significant part of the Borough, most obviously on Canvey Island, but also on the mainland south of the railway line. Virtually the whole of this area consisted of grazing marsh less than a hundred years ago, but precious few areas of that nationally scarce habitat remain in anything like their original condition. This review has identified two small areas in which the distinctive plant community of coastal grazing marsh has been maintained, with the associated original topographical features (CPT37 Benfleet Marsh and CPT38 Brickhouse Farm Marsh). West Canvey Marshes (CPT4) comprises one of the largest contiguous blocks of coastal grassland in south Essex, albeit much of it has been modified to some degree. The RSPB is actively recreating the ecological value of this area.

This habitat is covered by the Coastal and Floodplain Grazing Marsh England BAP Priority Habitat, which applies to all periodically inundated pasture where ditches control the water level. It covers freshwater riverine marshes as well, but none of these is present within the borough.

In addition to the grazing marsh grassland, there is a significant grassland resource on the sea walls, including three large sections that have been made LoWS in this review (CPT27 Hadleigh Marshes Sea Wall and Borrow Dyke, CPT36 Northwick Farm and Sea Wall and CPT39 Benfleet Creek and Sea Wall). Sea wall grasslands are vulnerable to fluctuating management regimes, as applied by the Environment Agency, but can provide a significant extent of nectar-rich foraging habitat for invertebrates, as well as being of a linear form that lends itself to habitat connectivity. Sea wall grasslands are rarely as diverse as unimproved hay meadows, but their plant community is distinctive, making them locally significant. They also support a range of Nationally Scarce plant species including Sea Clover (*Trifolium squamosum*), Slender Hare's-ear (*Bupleurum tenuissimum*), Sea Barley (*Hordeum marinum*), Divided Sedge (*Carex divisa*) and Curved Hard-grass (*Parapholis incurva*).

Most of the inter-tidal habitats of the Borough are within the Benfleet and Southend Marshes or Vange and Fobbing Marshes SSSIs, although some significant blocks have been added to the LoWS network in this review (in CPT4 West Canvey Marshes and CPT39 Hadleigh Marsh Sea Wall and Borrow Dyke). These are essentially linear, creek side sections of saltmarsh, typical of the north shore of the Thames, which lacks the larger saltmarsh blocks found in the mid and north Essex estuaries.

Coastal Saltmarsh and Intertidal Mudflats are both England BAP Priority Habitats, defined by the extent of tidal influence and the presence or absence of plant communities.

### Post-industrial

Over much of the Borough there is little in the way of the former industrial or aggregate extraction sites that typify the post-industrial sites that have developed significance for nature conservation, and which are a prominent feature of Thameside. The obvious exception is on Canvey Island, where the Canvey Wick SSSI occupies such a site, with the adjacent, newly designated CPT36 Northwick Farm and Sea Wall LoWS, part of which is on a former landfill site. A small-scale exception is found at the CPT40 Thundersley Brickfield LoWS, where sand and clay extraction has resulted in nutrient poor soils with sparse vegetation cover.

These sites provide conditions that support nationally significant assemblages of invertebrates, by virtue of the habitats they support and their location in the hot southeast of the UK.

Post-industrial sites with a characteristic mixture of pioneer plant communities, more established flower-rich grasslands, scrub, swamp and fen habitats, amongst others match the description of the Open Mosaic Habitats on Previously Developed Land England BAP Habitat, recognising the significance of the invertebrate communities that they support in the modern landscape.

## **Losses and Threats**

### Development

Development for housing is a particular threat in the plotland areas of the Borough, where the individual blocks of habitat are of less demonstrable conservation significance.

However, this has a cumulative effect on biodiversity within and around urban areas, the plotland providing valuable open space and encouraging the dispersal of wildlife into gardens and other open spaces.

As well as new housing developments, plotland is under pressure from the extension of gardens and the consequent domestication of formerly wild habitats, as are other parts of the Borough on the urban fringe,. This has affected woodland habitats primarily, but there is an ongoing issue with a large section of the CPT12 Vicarage Hill LoWS, where tidy grassland is desired.

Although there are few within the borough, post-industrial sites are also vulnerable to development pressure; one scheme is already being pursued within the CPT40 Thundersley Brickfields Site.

The NPPF stresses the need to preferentially allocate land of lesser environmental value for development, which should lead to a reduction in threat to LoWS and other designated sites.

### Recreation

The impact of recreational activities on sites of nature conservation significance can be marked and include disturbance of sensitive species (both visual and through noise), trampling, enrichment by dog faeces, accidental and deliberate fires, the dumping of garden refuse, improvements to visitor and sporting infrastructure, and the tidying up of habitats considered to be unsightly. There are even cases where the completion of positive management can be inhibited by the weight of local public opinion, with objections to tree felling being a frequent example.

The effects can be persistent and cumulative, leading to the long-term decline of a site, or can be more dramatic, with a significant immediate effect. Examples within the LoWS network include CPT34 Belfairs Park Wood where visitor numbers have exceeded the site's capacity over a significant period of time, leading to the gradual degradation of ground flora through the spread of paths. A more recent and dramatic example is at CPT25 Castle Farm, where the construction of the Olympic mountain biking track and associated facilities has led to the loss of LoWS habitat and the alteration of the grassland

management regime, albeit that there should be some improvement in management as a result of the Olympic Legacy application.

In contrast, it can be seen that public access on a recreational basis can be a benefit to a site, as in the case of CPT4 West Canvey Marshes, where the RSPB has secured the favourable management of the site, including a substantial element of visitor facilities with consequent opportunities for interpretation.

These impacts are accentuated by the urban nature of the Borough, placing large numbers of people in close proximity to many of the more important LoWS. This issue needs to be considered within the planning system, with an assessment of the impacts of significant housing developments on nearby LoWS required as part of the planning application process, together with plans for the mitigation of any adverse effects. Improvements to paths, boundaries and access points could all be used to focus or control people in such a way as to avoid damage to significant ecological features or to avoid the locations of sensitive species.

On a policy basis, sites of significant nature conservation value should not be relied upon to provide accessible green space, although it is right and proper that they play a part in the delivery of this provision, and there are educational benefits and opportunities for the nature conservation movement to have such connections between the local community and local wildlife. It may be that additional open space supporting less ecologically sensitive habitats is required to receive the intensive or damaging uses that would otherwise be directed onto LoWS.

In Castle Point Borough coastal recreation has had a significant effect on sensitive natural habitats, with otherwise qualifying inter tidal habitats in Benfleet and Smallgains Creeks excluded because of the presence of boat moorings. Indeed, one sailing club in the Borough is located on land reclaimed relatively recently from saltmarsh. The expansion of coastal activities must be carefully monitored, not least because of the importance of these coastal areas, as recognised by their international designations.

### Agriculture

Unlike much of Essex, the proportion of agricultural land in Castle Point Borough is relatively small, much of it being given over to plotland and, subsequently, urban development. There is likely to be little impact on land of conservation value from agriculture in the near future, although the one lost LoWS, Montgomery School Meadow, succumbed to systematic agricultural improvement.

Horse-grazing is prevalent within the Borough, particularly in the plotland areas, and can have a dramatic impact on the quality of grassland. Horse pastures are often over-grazed, which leads to a reduction in flowering and seed-setting and can also break up the sward and allow undesirable “weed” species to colonise. However, it is one of the few management actions that is at all sympathetic to good grasslands.

### Neglect

Woodlands are generally resilient habitats in structural terms, with changes following the cessation of management often taking decades to have significant, long-lasting impacts on diversity. Virtually all of the woodlands of Essex have been modified by human management over enough time for extensive assemblages of species to become adapted to the conditions created by the cyclical patterns of disturbance and structural modification. So much so, that an absence of these impacts will eventually inhibit the diversity of species supported by a given woodland unit. This is then combined with the adverse impact of colonising non-native species such as Sycamore (*Acer pseudoplatanus*) and Cherry Laurel (*Prunus laurocerasus*), which create different conditions to which many woodland species cannot adapt.

In contrast, grassland Sites can deteriorate rapidly with a lack of management, becoming over-run with scrub and more competitive grass species, leading to a reduction in species diversity and the loss of the more sensitive species, which are often, as a consequence, the rarer ones. However, even badly neglected grassland Sites can recover if the soil profile is undisturbed and favourable (low in nutrients and well-drained), scrub is removed and an appropriate level of management applied.

### **Potential Development Locations**

Within these areas are a number of habitat blocks that are approaching LoWS quality, or that provide an important ecological function without satisfying any of the selection criteria. Considerable opportunities exist to influence their development in such a way as to preserve the more interesting areas within a green infrastructure that will provide a genuinely improved environment in which the local community can live. These issues are fully considered within section 4.1.

## **RECOMMENDATIONS**

### **Policy**

The NPPF introduces a presumption in favour of sustainable development, to encourage development that aligns well with Local Plan policies and the objectives of the NPPF. It is essential, therefore that clear nature conservation objectives, covering protection and enhancement, mitigation and compensation, are included on a strategic basis within the Local Plan. Indeed, with regards to the making of Local Plans, the NPPF requires local planning authorities to set out strategic priorities for the area, which should include strategic policies to deliver climate change mitigation and adaptation, and conservation and enhancement of the natural environment (para.156), specifically the creation, protection, enhancement and management of networks of biodiversity and green infrastructure (para. 114).

Policies and strategies can be considered in two main areas:

those for protecting protected wildlife and designated sites from development proposals;  
and

those encouraging positive management and enhancement within developments that are given consent.

Within these areas some issues would be best dealt with using Local Plan policies, whilst others may be more appropriately covered in supplementary guidance documents, design codes, or in other similar forms. The following sections discuss the background to policy contents, with a suggested schedule of policies in section 4.1.3.

### **Protection and Mitigation**

The NPPF states that local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife will be judged (para. 113).

In order to receive the information that is needed to be able to assess applications in an effective manner, the Council should expect all applications that affect semi-natural habitats, including larger gardens, to be accompanied by an ecological impact assessment. These documents should conform to professional guidance, as set out by the Institute of Ecology and Environmental Management (IEEM) or to an equivalent

standard appropriate to ecological survey. They should include a description of the habitats present (often collected using Phase 1 habitat survey methods), information regarding the presence of internationally, nationally, or locally designated sites of nature conservation significance (including LoWS), consideration of the presence or potential presence of legally protected species, an assessment of the impacts associated with the proposal, details of the mitigation or compensation that is proposed.

Where sites have been designated for their nature conservation significance greater scrutiny should be expected within accompanying ecological information, and this should extend to PLoWS, particularly where a lack of species information has been cited.

Under current guidance (ODPM Circular 06/2005: Biodiversity and Geological Conservation –Statutory Obligations and their impact within the Planning System), the presence of habitats or species listed as priorities in the UK Biodiversity Action Plan is capable of being a material consideration (para 74) as is the presence of species protected by law (para. 99). Therefore, the Council needs to have access to all relevant survey information before it can make a sound decision as to whether or not the proposals would have an adverse effect and so whether or not consent should be granted. Further species or habitat surveys should not be conditioned as part of a planning consent, unless it is clear that the results could not affect the Council's decision to grant consent.

Part of this consideration relates to the Conservation of Species and Habitats Regulations 2010, which imposes the requirement that local planning authorities (amongst other public bodies) must have regard to the requirements of the Habitats Directive so far as they may be affected in the exercising of their functions. Case law has demonstrated that this extends to the need for local planning authorities to consider, in the event that a European Protected Species is present and an offence under the regulations is likely, whether or not the three tests set out in the regulations are passed and therefore whether it is likely that a licence will be granted by Natural England, should planning consent be granted. The three tests are as follows:

(1) **Regulation 53(2)(e)** states: a licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

(2) **Regulation 53(9)(a)** states: the appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.

(3) **Regulation 53(9)(b)** states: the appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

Without all of the information set out above, it would not be possible for the Council to consider the three tests and to determine whether or not a licence is likely to be granted.

Ecological survey information should be prepared by a professional ecologist with demonstrable qualifications, normally membership of an appropriate Institute, of which IEEM is the most relevant.

The NPPF states that, when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying a series of principles including that: If significant harm resulting from development cannot be avoided, adequately mitigated or, as a last resort, compensated for, then planning permission should be refused (para. 118).

The definition of “significant harm” will be open to interpretation and determining such a threshold will depend on the circumstances of each case, using the information that is provided alongside a planning application. Likewise, assessing the necessary level of mitigation and compensation where impacts cannot be avoided will require detailed information. This should bear in mind the assertion within the framework that sustainable development should include moving from net loss of biodiversity to achieving net gains (Para. 9).

Providing a policy within which the hierarchy of sites of recognised significance for nature conservation is clearly set out, and establishing a threshold of importance above which planning consent would not normally be granted should contribute to the criteria-based strategy required by the NPPF. However it should be borne in mind that significant harm could still be possible on sites with no such designation.

It is clear from the framework and from connected legislation that development on sites with European statutory protection – Special Protection Areas, Special Areas of Conservation and Ramsar Sites – should not normally be permitted. The relevant legislation sets out a detailed basis for the assessment of impacts, both within the development of local plans and in making individual decisions, and further policy on these sites would not appear to be necessary.

Local authorities have a general duty to conserve and enhance SSSIs, specifically the features for which they have been designated, which runs through all of their functions. Planning consent should not normally be granted for any application that would result in an adverse effect on the features for which a SSSI has been designated, either directly or indirectly. A higher level of evidence should be required if an applicant seeks to demonstrate clearly that the benefits of their proposal would outweigh the impacts at site and national level, as required by the NPPF (para. 118).

LoWS should be afforded a similar principle of protection, although the need for benefits to outweigh impacts would have to be judged at the level of county significance. In para. 113 of NPPF the need for site protection to be commensurate with status is made in relation to sites of international, national and local designations. This protection should also include sites that satisfy one or more of the LoWS selection criteria, even if they have not formally been designated as such. This recognises the existing lack of detailed information available for species and habitats on some sites, and the opportunity that the scrutiny associated with planning affords for the proper assessment of all sites. The LoWS network is intended to be inclusive, meaning that all sites that satisfy one or more criteria should be included, in contrast to SSSIs, for example, which are selected to represent the habitats and species across the UK. For this reason, all ecological assessments accompanying planning applications should consider as a matter of course whether any of the LoWS selection criteria are satisfied.

The framework states that planning permission should be refused for irreplaceable habitats, including ancient woodland and veteran trees (para. 118). The extent to which habitats are replaceable is open to debate, with, for example, there being compelling arguments that it is no longer possible to create unimproved grassland because of the all-pervading nature of modern agricultural chemicals. Natural and semi-natural habitats

develop over the course of generations with ever increasingly complex ecological relationships between species, dependent on environmental conditions. While it has been shown that habitats of high value can be created over a relatively short timescale – such as in the case of post-industrial sites – this is not always the case. In determining the appropriateness of compensation for adverse effects on complex habitats, consideration should be given to the timescale required for a new habitat to reach a threshold level of value, and the consequent impact on species populations.

At all levels of significance, the preference within the NPPF remains for the conservation of biodiversity to be achieved by following the principle of:

First avoiding impacts by considering the availability of other sites;

If this is not possible, by mitigating for impacts within the site;

Or, as a last resort, by compensating for the impacts on another site.

Considering this in light of the principle of moving towards a net gain in biodiversity, it should be apparent that mitigation and compensation measures should deliver net increase in the resource of the species and habitats affected by the proposals. The principles that could guide this process are set out in the following section. There is also an implication within this principle that the hierarchy should apply within each site, rather than taking sites as a whole. In this way the key ecological features of every site should be retained if possible, or replaced within the development if not. This could include more general items, such as linear features that permit the movement of species through the development (e.g. hedgerows and ditches), or specific resources, such as a particular mature tree or Badger sett.

Referring to the Neighbourhood Development Plan (NDP) process made possible by the Localism Act 2011, the NPPF allows for the designation of Local Green Space by local communities to protect open space that is demonstrably of particular importance to them, by virtue of factors including the “richness of its wildlife” (para. 77). If the Council was minded to encourage the development of such plans, then they could be used to strengthen the protection afforded to LoWS and to extend some protection to other sites that currently fail to meet the selection criteria, of they are perceived to be of importance to local communities. These NDPs can be adopted as part of the Borough Local Plan, but

must still conform to Local Plan strategic policies and to national policy and legal obligations.

### Compensation and Enhancement

Efforts to provide net gains in biodiversity through the planning system would be best achieved by taking a strategic approach to the locations and types of habitats that would provide the most valuable and resilient green infrastructure in future years. Local Plans should take account of the results of climate change over the longer term, including changes to biodiversity, with a particular implication for developments that may affect areas that are vulnerable to climate change impacts. The role of planning green infrastructure to establish measures that facilitate adaption to the results of climate change is highlighted within the framework (para. 99).

The duty of the Council to conserve and enhance SSSIs places some emphasis on these as a focus for this strategy. The following table summarises the condition of the SSSIs within the Borough at their most recent assessment, using data from Natural England's website.

SSSI Name	Condition summary	Comments
Garrols Meadow	Unfavourable recovering	Concerns recorded over low frequency of positive indicators, scrub invasion and high frequency of Ragwort
Great Wood and Dodd's Grove	Part favourable, part unfavourable recovering	Concerns over condition relate to habitat suitability for the Heath Fritillary butterfly; the management plan is considered appropriate
Benfleet and Southend Marshes	Unfavourable recovering for grassland and scrub; unfavourable declining for saltmarsh	Management is improving the terrestrial habitats; saltmarsh is declining through natural processes combined with coastal squeeze
Thundersley Great Common	Unfavourable recovering	Condition improving under management within HLS
Canvey Wick	Favourable	Notes record the need for management to maintain favourable condition
Holehaven Creek	Favourable	No concerns

This information suggests that measures are already in place to facilitate the achievement of favourable condition for sites that are under the direct influence of the Council. Garrolds Meadow and Canvey Wick appear to require further management in order to ensure their favourable status in the future, and so the possibility of securing a management agreement as part of a planning obligation relating to an application elsewhere in the Borough should be considered.

Within the NPPF, it states that to minimise impacts on biodiversity, planning policies should promote the preservation, restoration and re-creation of priority habitats, ecological networks and populations of priority species (para. 117). The Living Landscape areas identified by Essex Wildlife Trust would appear to provide a structured and defensible basis for the specification of compensation measures, and reference is made in para. 117 to “areas identified by local partnerships for habitat restoration and creation”. Following the principle set out in the framework, habitat creation and enhancement should be focused on England BAP Priority Habitats, such as Hedgerows, Lowland Mixed Deciduous Woodland, Lowland Meadows, Lowland Dry Acid Grassland or Lowland Heath, according to the availability of land and its environmental characteristics. More extensive networks of habitat, such as these Living Landscapes, which have better connections that enable species to move more freely through the landscape and establish new populations, would facilitate the adaptation of species and habitats to climate change, by allowing species to find the right conditions. If such movement is not possible species can become stuck in one location as the environmental conditions gradually become less suitable, their populations dwindling, until they are no longer viable. It is known that, in order to thrive, there must be interchange between different populations of the same species, improving the genetic variability that can permit adaptation to changing environments.

The intention is for actions within each Living Landscape area to be guided by a vision document prepared by a group made up of local stakeholders. For some, such as Hadleigh and Daws Heath and the Wat Tyler Complex, the vision document is already in place and projects are underway to meet some of the objectives identified. For others no partnership has yet been formed and a vision document is still needed.

Within the Hadleigh and Daws Heath Living Landscape Vision, for example, objectives include improving the management of existing England BAP habitats and planting up hedgerows and woodland to link up existing habitats.

The Living Landscape areas also feature clusters of LoWS and these should be the first priority in deciding what compensation should be required. The loss of LoWS quality habitat should certainly be compensated by the enhancement of other LoWS quality habitat or the restoration of a PLoWS or other site so that it satisfies one or more selection criteria.

The type and extent of compensation should be related to the adverse effect caused by the development. As stated above, the principles of the NPPF would seem to encourage a greater than 1:1 ratio in the benefit of new or restored habitats. A variety of metrics have been developed to provide a mathematical basis for such calculations, taking account of the habitat type and quality of the site to be developed and the receptor site. Essex County Council is pursuing a trial of one such system in its Biodiversity Offsetting Pilot.

Within the NPPF, particular emphasis is placed on the importance of planning in coastal areas, to avoid inappropriate development that could add to existing physical changes and to preserve the character of the coast (para. 106 and 107). Although it is expected that there will be little defensible need for development in the coastal parts of the Borough, there may be such pressure for recreational amenities.

Considering the quality of design that is required to create built environments that are better places for people to live, the NPPF requires planning policies and decisions that ensure that, amongst other things, developments sustain an appropriate mix of uses including green space (para. 58). Green space within developments should be strategically planned to provide an infrastructure that will compliment that of the built development. In this way it can serve functions such as amenity, flood alleviation, drainage, recreation, sustainable transport (by foot or bicycle), ecological connectivity and biodiversity. While multi-functionality should be encouraged, it should also be recognised that some of these functions have a dominant influence that can over-ride or reduce the ability of a land parcel to serve other functions. For example, areas set aside for formal recreation rarely support much in the way of biodiversity. Most of all, it should be realised that green infrastructure should be fundamental to the layout of all but the smallest developments, and can't truly work as an afterthought.

The principles for enhancing biodiversity that should be applied in making planning decisions (para. 118) include that: opportunities to incorporate biodiversity in and around developments should be encouraged. Furthermore, the use of design codes to help deliver high quality outcomes is encouraged (para. 59), which seems to be as applicable to ecological matters as to other aspects of design.

There are various areas in which design codes could be used to encourage the inclusion of positive features for biodiversity within developments, as set out below:

Green infrastructure; setting out the need to retain ecological features within development sites and to incorporate a strategic network of habitats for various integrated functions;

Lighting; requiring artificial lighting to be minimised within new developments and to be designed to minimise light pollution and reduce impacts on nature conservation (para. 125 of NPPF);

Biodiversity in buildings; requiring the incorporation of bat and bird boxes within the fabric of new buildings and considering the ability of species to move between properties in designing boundary features (garden walls)

Landscaping and biodiversity; requiring the use of native plant species in landscaping schemes outside of formal gardens and incorporating features to support the conservation of invertebrates and other wildlife; design of landscaping to complement and enhance surrounding natural and semi-natural habitats.

Although existing codes are already in place, such as BREEAM/Code for Sustainable Homes, these seem to work better for sustainability in a broad sense, with little in the way of benefit from an ecological point of view.

#### Schedule of Ecological Policy Documents

The following table summarises the discussion in the previous two sections to provide a suggested schedule of areas in which Local Plan policies could be considered.

Policy	Description
Ecological Survey	Policy setting out the need for ecological survey information with related guidance on contents and scope; reference to IEEM guidance and expected qualifications of ecologists
SSSI	Policy stating that planning consent would not normally be granted for proposals adversely effecting stated features of

	interest and setting out the Council's obligations
LoWS	Policy stating that planning consent would not normally be granted on LoWS or sites where selection criteria are satisfied; reference to the need for ecologists to assess sites against LoWS criteria
Avoidance of impacts, mitigation and compensation	Policy stating the hierarchy of impact assessment; statement of expectation for net gains from mitigation and compensation; statement that consent will not be granted where irreplaceable habitats will be affected; requirement for the retention of key ecological features within every development
Ecological Networks	Policy setting out the requirement for mitigation and compensation to contribute to the development of approved Living Landscape Areas
Design	Policy stating the requirement to adhere to design codes that will improve the ecological performance of developments: lighting, green infrastructure, opportunities within new buildings

### **LoWS Review and Monitoring**

The importance of keeping Local Plans up to date is stressed within the NPPF (para. 17 and 157) and this is consistent with them being front-loaded to speed up planning decisions. As a result it will be necessary to keep the underlying evidence base up to date. An ideal solution would be a continuous programme of updates that would enable new Sites to be identified and designated and old Sites to be deleted as and when necessary, as well providing an opportunity to add to existing information and strengthen Site designations.

NPPF also suggests that part of the Local Plan process should be to identify suitable indicators for monitoring biodiversity (para. 117), although there is little guidance as to what measures may be appropriate.

### **References**

Rackham, O. (1986). *The Ancient Woodland of England: The Woods of South-east Essex*. Rochford District Council, Rochford

Stace, C.A. (2010). *New Flora of the British Isles (3<sup>rd</sup> Edition)*. Cambridge University Press, Cambridge



## Annex 1 List of Selection Criteria

The following list is taken from “Local Wildlife Site Selection Criteria”, produced by the Essex Local Wildlife Sites Partnership and published by Essex Wildlife Trust, second edition, June 2009, amended January 2010. Please note that the Selection Criteria document refers to the “UK BAP”, but this has been superseded by an “England BAP” and so it is the latter term that is used here. The Selection Criteria document will be amended in the near future. The habitats and species relevant to Essex are the same in both UK and England BAPs and so there will be no material change to the basis of the criteria.

### Habitat Criteria

- HC1 Ancient Woodland Sites – by inclusion in the Ancient Woodland Inventory, or as indicated by documentary evidence or the presence of indicator species.
- HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites – England BAP woodland habitat, which in Essex means Oak-Ash-Maple or Oak-Bracken-Bramble woods.
- HC3 Other Priority Habitat Woodland Types on Non-ancient Sites – in Essex this is restricted to the Wet Woodland England BAP Priority Habitat.
- HC4 Wood-pasture and parkland
- HC5 Woody Scrub – stands supporting exceptional diversity, unusual communities or where the scrub is integral to another aspect of the site’s ecology.
- HC6 Veteran Trees – where there is specific associated ecological interest (e.g. epiphytes or invertebrates).
- HC7 Old Orchards
- HC8 Hedgerows and Green Lanes – if connecting other significant wildlife habitats, forming an extensive network of valuable hedges or if demonstrating ancient woodland flora.
- HC9 Lowland Meadows – grassland conforming to the National Vegetation Classification MG5 hay meadow community.
- HC10 River Floodplain
- HC11 Other Neutral Grasslands – old grasslands that do not clearly match HC9.
- HC12 Lowland Calcareous Grassland
- HC13 Heathland and Acid grassland – including sites with potential for restoration.
- HC14 Lowland Fen Vegetation
- HC15 Reedbeds
- HC16 Lakes and Reservoirs – a means of designating a whole water body where species selection criteria are applied.
- HC17 Ponds – a means of designating a habitat where species criteria apply, in accordance with the England BAP Ponds Priority Habitat.
- HC18 Rivers
- HC19 Extended Riverine Habitat
- HC20 Complex Riverine Habitats
- HC21 Coastal Grazing Marsh – naturalness of the land form is of primary importance, to be supported by the presence of notable plant or animal species.
- HC22 Tidal Transition Zones – where there is no intervening coastal defence between intertidal and terrestrial habitats.
- HC23 Saltmarsh and Mudflats
- HC24 Saline Lagoons and Borrow Dyke Habitats – as indicated by characteristic plant and animals species.
- HC25 Sand Dune and Shingle Beach Vegetation
- HC26 Maritime Cliffs and Slopes

HC27 Post Industrial Sites – where there is evidence of the presence of notable species or where habitat features likely to support such species are present.

HC28 Small-component Mosaics – sites with two or more habitats that are close to satisfying other criteria.

HC29 Habitat Extension Mosaics – sites with habitat that supports a species for which an adjacent area has been selected.

HC30 Wildlife Corridors – habitat with a connectivity function, but that does not meet another criterion.

HC31 Urban Sites – sites that would not otherwise qualify, but that have value for amenity, cultural or educational purposes in relation to the local community.

#### Species Criteria

SC1 Vascular Plants

SC2 Bryophytes

SC3 Lichens

SC4 Fungi

SC5 Notable Bird Species

SC6 Exceptional Populations of Common Bird Species

SC7 Dormouse

SC8 Barbastelle (and other Annex II) bats

SC9 Other Bat Breeding Colonies

SC10 Bat Hibernation Sites

SC11 Protection of Otter Holts

SC12 Breeding Water Vole Colonies

SC13 Hotspots for Amphibian Diversity

SC14 Palmate Newts

SC15 Great Crested Newts

SC16 Hotspots for Reptile Diversity

SC17 White-clawed Crayfish

SC18 England BAP Priority Invertebrates

SC19 Important Invertebrate Assemblages

SC20 Notable 'Flagship' Macro-invertebrates

## **ANNEX 2**

### **REGISTER of LoWS 2012**

#### **Introduction**

Within this Annex are presented the network of LoWS in Castle Point Borough as recommended at the time of publication. The LoWS site selection criteria document, and government policy, makes it clear that LoWS designation should be inclusive, with any qualifying habitat to be considered as a LoWS. The inclusion or exclusion of a site from this annex should not be considered, therefore, as definitive proof of status. LoWS may be added or removed as a result of changes in management or ecological condition, destruction or damage, or by habitat creation. Castle Point Borough Council and Essex Wildlife Trust should be contacted in order to receive definitive information at the time of enquiry.

#### **Boundaries**

The boundaries shown in the maps were prepared on base maps at a scale of 1:2500, although shown here on 1:10,000 scale maps. As a result there is some discrepancy between site boundaries and the boundaries shown on the base maps. Boundaries should be considered as indicative only. The exact position of the boundaries should be determined on the ground, by an ecologist, with reference to natural habitat features.

#### **Site naming**

The names used for site are, where possible, those in widespread current usage, as understood at the time of preparation or in order to give continuity to the naming of pre-existing LoWS. Where no obvious name is apparent, named features on available maps, new or old, have been used in an attempt to give a realistic impression of their location. The names used are not intended to give any indication of site ownership, although this might be true in some instance.

#### **Public access**

Designation of a site as a LoWS, many of which are in private ownership, does not confer any right of access to members of the public beyond established public rights of way. On some Sites there is *de facto* public access, but this designation should not be taken to endorse or strengthen any such situation.



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### **CPT3 Rushbottom Lane Flood Pound (3.3ha) TQ766894**

This is a very varied site containing both marshy and dry grassland with scattered scrub, marshy grassland being poorly represented in the District. The grassland is species-rich with a good mix of sedges, rushes, grasses and herbs, including Black Sedge (*Carex nigra*), which is rare in south Essex. Other characteristic species include Meadow Foxtail (*Alopecurus pratensis*), Crested Dog's-tail (*Cynosurus cristatus*), Agrimony (*Agrimonia eupatoria*), False Fox-sedge (*Carex otrubae*), Meadow Barley (*Hordeum secalinum*), Grass Vetchling (*Lathyrus nissolia*), Hard Rush (*Juncus inflexus*) and meadow-grasses (*Poa* spp.).

#### **England BAP Priority Habitats**

None

#### **Selection Criteria**

HC11 Other Neutral Grasslands

HC28 Small-component Mosaics

#### **Rationale**

Although not a close match for the Lowland Meadows England BAP habitat, the grassland mosaic on this site is species-rich and of significant conservation value. The marshy and dry grassland are combined with scrub to form a mosaic site.

**Condition Statement**

The site appears to be reasonably stable.

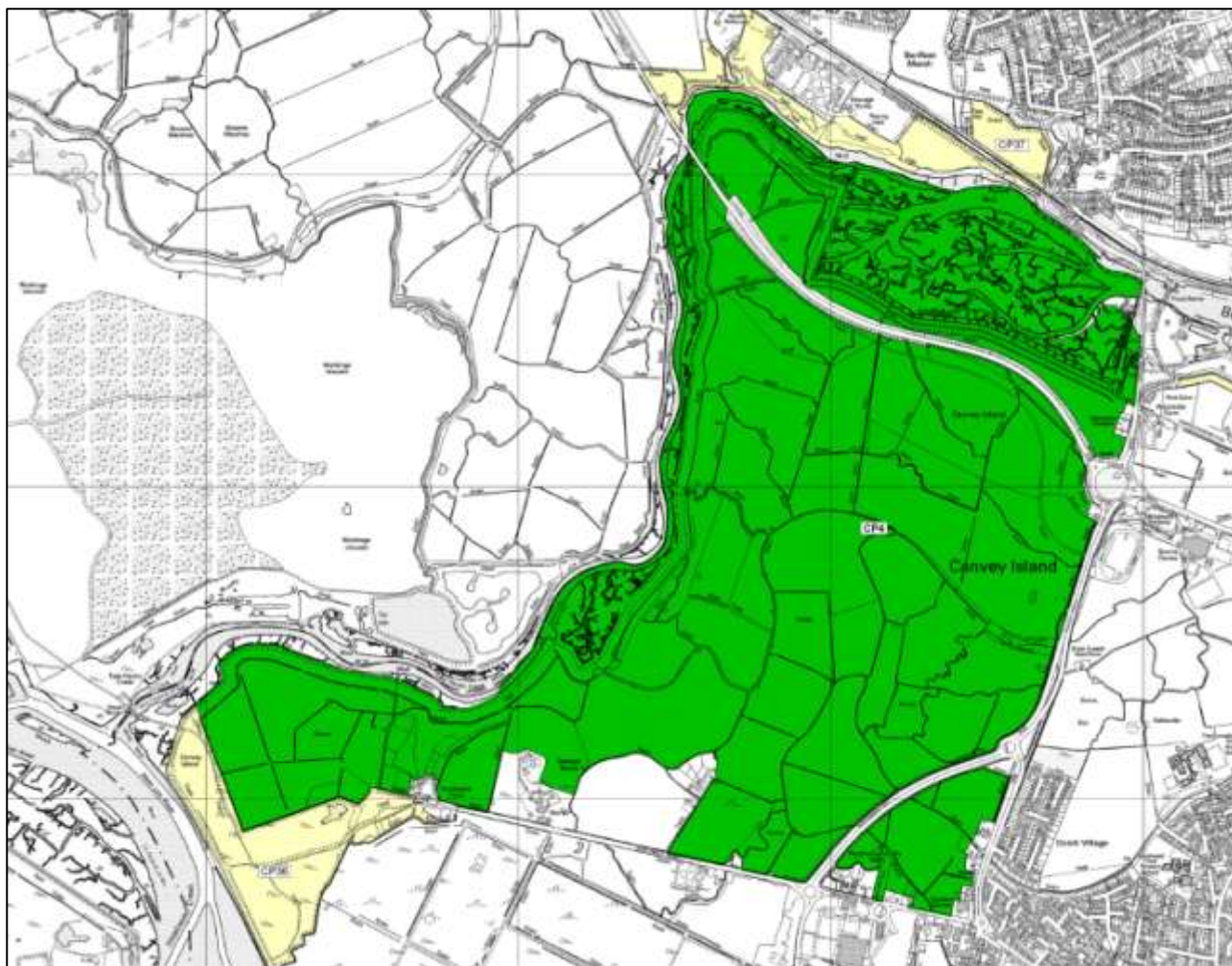
**Management Issues**

Scrub encroachment is a constant threat on this site, although it is believed that some management occurs to maintain the site's function.

**Review Schedule**

**Site Selected:** 1992 (M1)

**Reviewed:** 1994 (M1), 2002 (CP3), 2007 (CP3), 2012 (CPT3)



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#### **CPT4 West Canvey Marshes (351.1ha) TQ 773827**

West Canvey Marshes is a very extensive area of grazing-marsh, ditches, scattered scrub and inter-tidal habitats.

The sea wall, which is grazed at times, supports a distinctive community of coastal grassland plants including the Nationally Scarce species Sea Barley (*Hordeum marinum*), Slender Hare's-ear (*Bupleurum tenuissimum*), and, in large quantities, Sea Clover (*Trifolium squamosum*). Species of more local significance include Corn Parsley (*Petroselinum segetum*), Narrow-leaved Bird's-foot-trefoil (*Lotus glaber*) and Hard-grass (*Parapholis strigosa*). Where there is no grazing pressure, this community becomes dominated by Sea Couch (*Elytrigia atherica*), Common Couch (*Elytrigia repens*) and Cock's-foot (*Dactylis glomerata*).

The associated borrow dykes contain Fennel-leaved Pondweed (*Potamogeton pectinatus*), Thread-leaved Water Crowfoot (*Ranunculus trichophyllus*) and, as they dry during the summer, the Nationally Scarce Saltmarsh Goosefoot (*Chenopodium chenopodioides*), amongst a flora typical of saltmarsh. This latter species occurs elsewhere on the site alongside ditches and the main fleet, as does Wild Celery (*Apium graveolens*). The Nationally Scarce Curved Hard-grass (*Parapholis incurva*) has been found in one location on the fringes of a tidal basin.

The main grasslands of the marshes are relatively species poor, but support a distinctive community of grasses that is widespread on the older coastal grasslands of Essex, which includes Meadow Barley (*Hordeum secalinum*), Smaller Cat's-tail (*Phleum bertolonii*), Yellow Oat-grass (*Trisetum flavescens*), Crested Dog's-tail (*Cynosurus cristatus*). The quality of the grassland varies from field to field and species diversity also responds to changes in management regime. The more interesting herbaceous species include Hairy Buttercup (*Ranunculus sardous*), Grass Vetchling (*Lathyrus nissolia*) and Narrow-leaved Bird's-foot Trefoil. Some fields retain the uneven topography inherited from the saltmarshes from which they were originally claimed.

The Site also includes sections of saltmarsh and mudflat in East Haven Creek that are not within a SSSI. The saltmarsh is typical of the area, being dominated by Sea Saltmarsh-grass (*Puccinellia maritima*) and Sea Purslane (*Atriplex portulacoides*), with Sea Couch on higher ground and scattered Common Sea Lavender (*Limonium vulgare*) and Sea Aster (*Aster tripolium*) among a few other herbaceous species.

Further habitat diversity is provided in the form of scattered scrub along field boundaries and on the folding of the sea wall. A significant part of the site is now accessible, using paths and hides installed by the RSPB.

The Site supports Common Lizard, Adder and Slow Worm, with a population of Water Vole, although little data for these species and for breeding birds is available.

### **England BAP Priority Habitats**

Coastal and Floodplain Grazing Marsh

Coastal Saltmarsh

Intertidal mudflats

### **Selection Criteria**

HC20 Coastal Grazing Marsh

HC23 Saltmarsh and Mudflats

SC1 Vascular Plants

SC16 Hotspots for Reptile Diversity

### **Rationale**

The habitats present clearly match the England BAP Priority Habitats stated above. The populations of Sea Clover and Saltmarsh Goosefoot are significant enough to trigger the Vascular Plants criterion and the presence of three reptile species qualifies the site for SC16.

### **Condition Statement**

The majority of the site is now under favourable management, being under the control of RSPB, with more water retained in ditches, fleets and low ways across the whole site.

### **Management Issues**

Management of the areas outside of the RSPB's control is of variable quality from a nature conservation point of view, with more intensive grassland management and the risk of arable cultivation. As with all low-lying coastal sites, there will be an increasing risk of tidal inundation as sea levels rise in response to climate change.

### **Review Schedule**

**Site Selected:** 1992 (G2 and C3)

**Reviewed:** 1994 (G2 and C3), 2002 (CP4), 2007 (CP4), 2012 (CPT4)



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### **CPT5 Canvey Village Marsh (35.9ha) TQ773827**

This site consists of the remains of an old grazing marsh system, representing a scarce and declining Essex habitat, of which Canvey Island supports a significant amount. The fields that make up the Site are variously cattle- or horse-grazed, cut for hay or under no current management, each of these resulting in grasslands of different character. Although of considerable significance in its own right, this Site also provides an extension to the adjacent Canvey Wick SSSI and links it to the new Brickhouse Farm Marsh LoWS to the east. This is particularly important for the maintenance of invertebrate populations at a landscape scale.

The sea wall is high and, on its inner face, grassy with a good diversity of flowering species, including the Nationally Scarce Slender Hare's-ear (*Bupleurum tenuissimum*), which also occurs in the adjacent fields. Outside of the sea wall, is a strip of upper saltmarsh vegetation that includes Golden Samphire (*Inula crithmoides*), Sea Wormwood (*Artemisia maritima*), Grass-leaved Orache (*Atriplex laciniata*), Sea Beet (*Beta vulgaris*) and Sea Couch (*Elytrigia atherica*).

The grazed fields have the best diversity of plant species, with typical coastal grassland species such as Meadow Barley (*Hordeum secalinum*), Crested Dog's-tail (*Cynosurus cristatus*), Timothy (*Phleum pratense*) and Creeping Bent (*Agrostis stolonifera*) combined with Narrow-leaved Bird's-foot Trefoil (*Lotus glaber*), Hairy Buttercup (*Ranunculus*

*sardous*), Grass Vetchling (*Lathyrus nissolia*) and the Nationally Scarce Sea Clover (*Trifolium squamosum*). Some of the fields retain their original, uneven topography with shallow wet pools and low ways.

A main drainage channel runs through the middle of the marsh, much of which is dominated by a pure stand of Common Reed (*Phragmites australis*), of which there are few within the District. To the west, the ditch banks exhibits a flora more typical of saltmarsh indicating a brackish nature, with Common Saltmarsh (*Puccinellia maritima*), Greater Sea Spurrey (*Spergularia marina*), Saltmarsh Rush (*Juncus gerardii*) and Sea Aster (*Aster tripolium*). In this area the England BAP Priority Species beetle *Anisodactylus poeciloides* has been recorded. Water Voles are present on the ditches of the marsh and the smaller brackish ditches support a range of nationally significant water beetles including *Agabus conspersus*.

The site supports the England BAP Priority Species Shrill Carder Bee (*Bombus sylvarum*) and Brown-banded Carder Bee (*Bombus humilis*) as well as the Nationally Scarce mining bee *Colletes halophilus*. Adders are also present and the Site has the potential to support bird species of conservation significance, but there is a lack of recent records.

### **England Priority BAP Habitats**

Coastal and Floodplain Grazing Marsh  
Reedbed

### **Selection Criteria**

HC15 Reedbeds  
HC20 Coastal Grazing Marsh  
SC12 Breeding Water Vole Colonies  
SC18 England BAP Priority Invertebrates

### **Rationale**

The habitat criteria stated above are clearly met and evidence of Water Vole breeding activity is evident on the ditches. There are records of three England BAP invertebrates from the site.

### **Condition Statement**

A significant part of this site has been lost to the recent Roscommon Way extension. The condition of the remaining site is variable as a result of mixed ownership and management. Hay cutting is not beneficial for diversity, but does keep the site as grassland. Parts of the site are over-grazed, with others in need of more grazing.

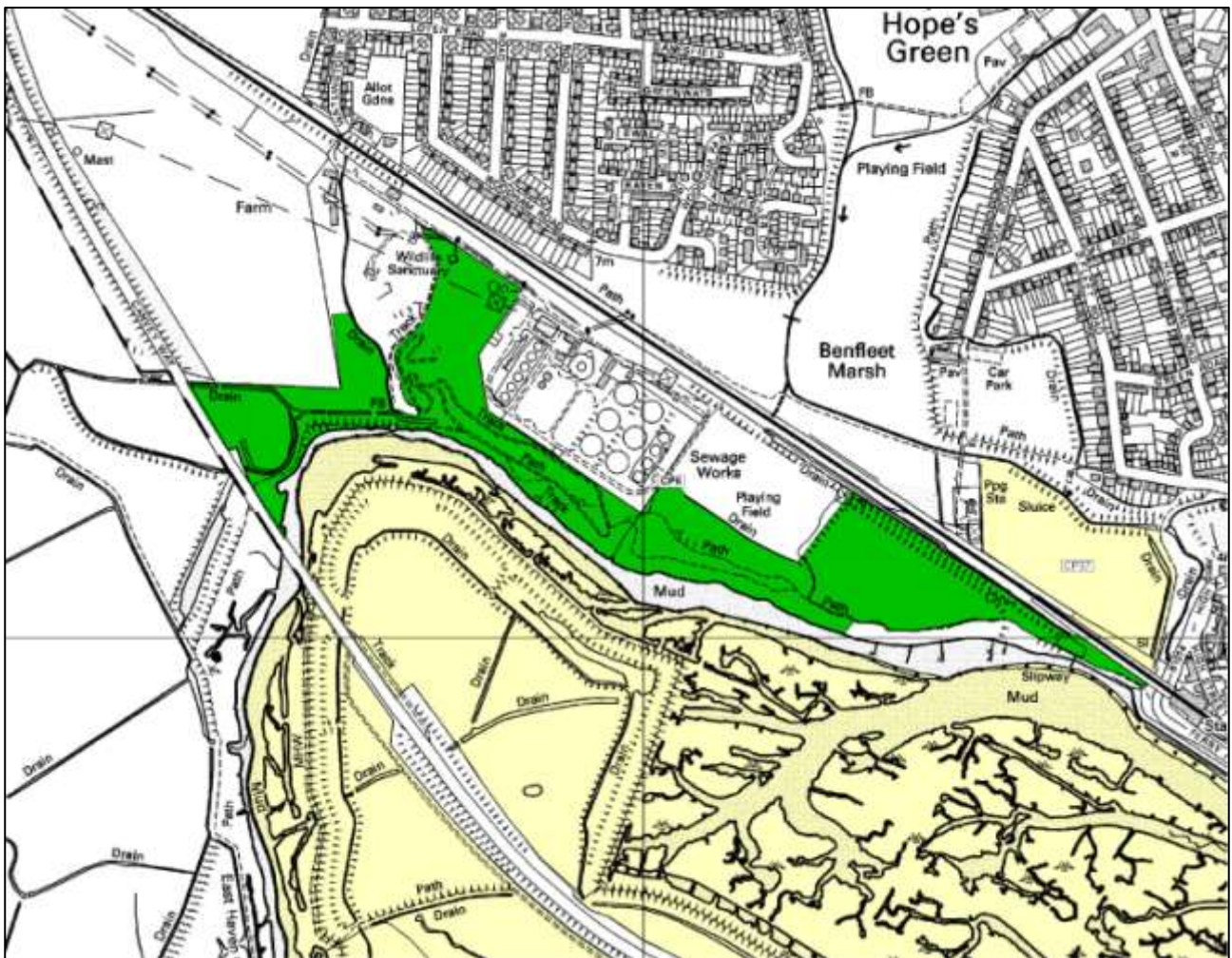
### **Management Issues**

The site is not managed for nature conservation purposes and so is vulnerable to practices that may lead to a reduction in its conservation value. Grazing would be preferable to hay cutting and some level of scrub control will be needed in some fields in future years to prevent the loss of open grassland.

### **Review Schedule**

**Site Selected:** 1992 (G18)

**Reviewed:** 1994 (G18), 2002 (CP5), 2007 (CP5), 2012 (CPT5)



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### **CPT6 Benfleet Sewage Works (12.8ha) TQ769861**

This site supports a mosaic of different habitats within a fairly small area, but with a combined conservation value of some significance.

The majority of the site consists of rough grassland dominated by False Oat-grass (*Arrhenatherum elatius*) with Black Horehound (*Ballota nigra*), Fennel (*Foeniculum vulgare*), Hemlock (*Conium maculatum*) and Large Bindweed (*Calystegia sepium*). This habitat supports Common Lizard, Grass Snake and Slow Worm. There is scattered scrub in the eastern half of the site, but to the west of the sewage works, the scrub is dense, bisected by a regularly used motorbike scrambling track.

To the south of the adjacent playing field is a less rank section of grassland and this supports a good population of the Essex Red Data List species Hairy Vetchling (*Lathyrus hirsutus*).

The site includes a fringe of saltmarsh and mudflats along East Haven Creek and at the western end is a modest remnant of lightly cattle grazed coastal grazing marsh, including a short section of sea wall, borrow dykes and ditches. The grassland here is typical of remnant grazing marsh, including Meadow Barley (*Hordeum secalinum*), Crested Dog's-tail (*Cynosurus cristatus*), timothy (*Phleum sp.*) and Yellow Oat-grass (*Trisetum*

*flavescens*) with Grass Vetchling (*Lathyrus nissolia*), Agrimony (*Agrimonia eupatoria*), Meadow Vetchling (*Lathyrus pratensis*) and Hairy Vetchling.

### **England BAP Priority Habitats**

Coastal Saltmarsh

Intertidal Mudflats

Coastal and Floodplain Grazing Marsh

### **Selection Criteria**

HC20 Coastal Grazing Marsh

HC23 Saltmarsh and Mudflats

HC28 Small Component Mosaics

SC16 Hotspots for Reptile Diversity

### **Rationale**

Three species of reptile have been recorded from the site, which consists of grassland, scrub, coastal grazing marsh and intertidal habitats in a mosaic.

### **Condition Statement**

The condition of the site is poor and deteriorating, although the rank grassland with scattered scrub does favour reptiles. The Nationally Scarce Hartwort (*Tordylium maximum*) was lost to the site through a combination of motorbike scrambling and scrub encroachment. The Nationally Scarce Bithynian Vetch is also believed to have been lost.

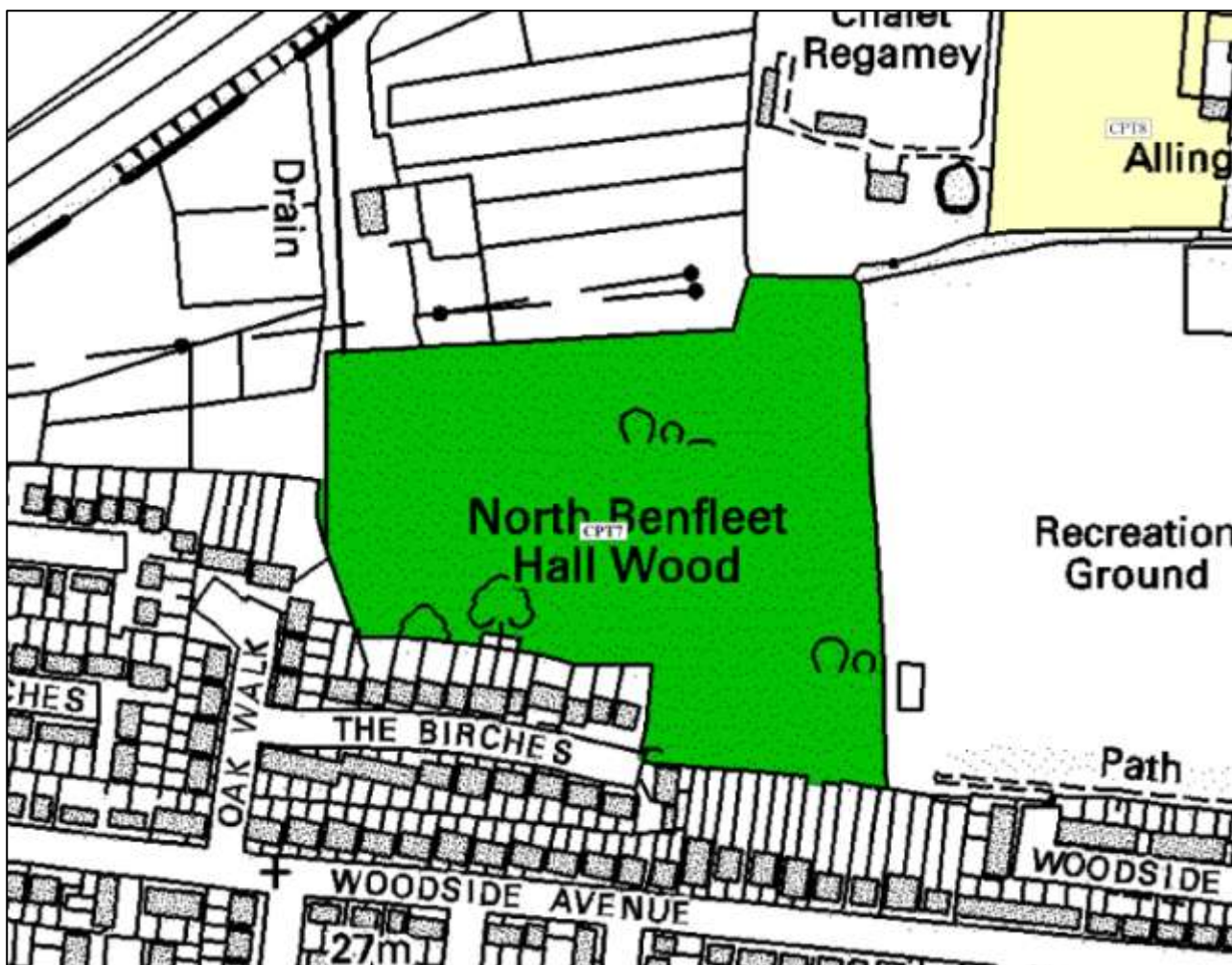
### **Management Issues**

The Site is suffering from a lack of management, with the majority of the grassland now dominated by coarse grass species and scrub. The motorbikes provide some open habitat, but the intensity of their use does not appear to allow the establishment of bare ground plant or invertebrate communities.

### **Review Schedule**

**Site Selected:** 1992 (G4)

**Reviewed:** 1994 (G4), 2002 (CP6, extended), 2007 (CP6), 2012 (CPT6)



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### **CPT7 North Benfleet Hall Wood (3.6ha) TQ773896**

The canopy of this old secondary wood is typified by relatively young Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) with Field Maple (*Acer campestre*), Elm (*Ulmus* sp.), and abundant Hawthorn (*Crataegus monogyna*) and Blackthorn (*Prunus spinosa*) scrub underneath. A variety of plant species indicative of continuous woodland cover over a long period of time are present including Bluebell (*Hyacinthoides non-scripta*), Remote Sedge (*Carex remota*), Spurge Laurel (*Daphne laureola*), Hairy-brome (*Bromopsis ramosa*) and Wood Sedge (*Carex sylvatica*). The ground flora more typically includes Cow Parsley (*Anthriscus sylvestris*), Common Cleavers (*Galium aparine*), Red Campion (*Silene dioica*) and Greater Stitchwort (*Stellaria holostea*).

The presence of the England BAP Priority species Wood Ant (*Formica rufa*) is of significance.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

SC18 England BAP Priority Invertebrates

**Rationale**

Evidence suggests that this wood is not ancient, but it conforms to the definition within the England BAP.

**Condition Statement**

The wood is in good condition, with a programme of active management being carried out by a local conservation group.

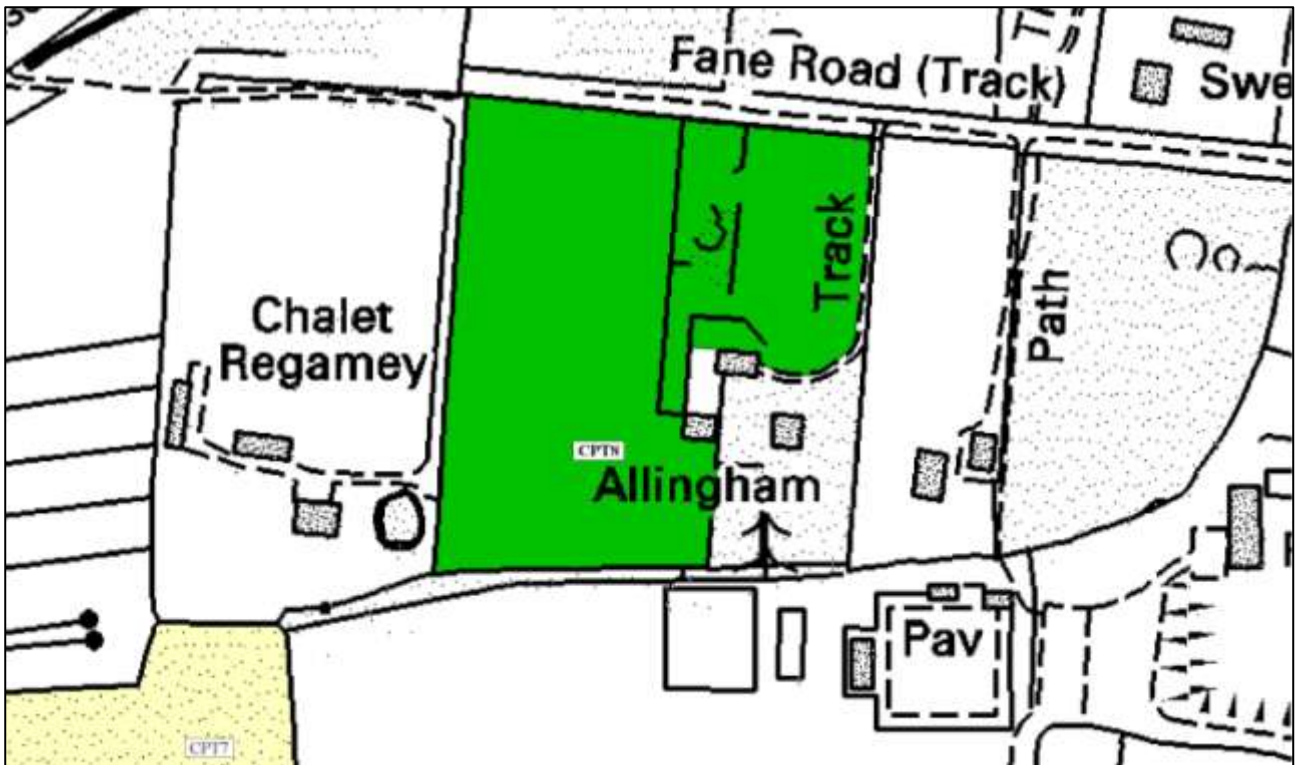
**Management Issues**

Misuse of the wood by neighbouring land owners remains a problem, albeit a minor one. The presence of the potentially invasive Three-cornered Leek (*Allium triquetrum*) should be monitored.

**Review Schedule**

**Site Selected:** 1992 (W1)

**Reviewed:** 1994 (W1), 2002 (CP7), 2007 (CP7), 2012 (CPT7)



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### **CPT8 Fane Road Meadows (2.0ha) TQ775898**

These two old meadows support a rich grassland flora, being of importance as surviving examples of a now rare and still declining grassland type in the county. The sward includes Crested Dog's-tail (*Cynosurus cristatus*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Meadow Foxtail (*Alopecurus pratensis*) and Red Fescue (*Festuca rubra*) with Black Knapweed (*Centaurea nigra*), Bird's-foot-trefoil (*Lotus corniculatus*), Meadow Buttercup (*Ranunculus acris*), Ox-eye Daisy (*Leucanthemum vulgare*), Common Sorrel (*Rumex acetosa*) and the ERDL species Devil's-bit Scabious (*Succisa pratensis*). Pepper Saxifrage (*Silene silaus*) and Green-winged Orchid (*Orchis morio*), both indicative of unimproved grassland and also on the ERDL, are also understood to be present.

### **England BAP Priority Habitats**

Lowland Meadows

### **Selection Criteria**

HC9 Lowland Meadows

### **Rationale**

The community present is clearly akin to the NVC MG5 *Cynosurus cristatus* – *Centaurea nigra* grassland type, which qualifies it as the England BAP Lowland Meadows habitat.

### **Condition Statement**

The Site remains in reasonable condition.

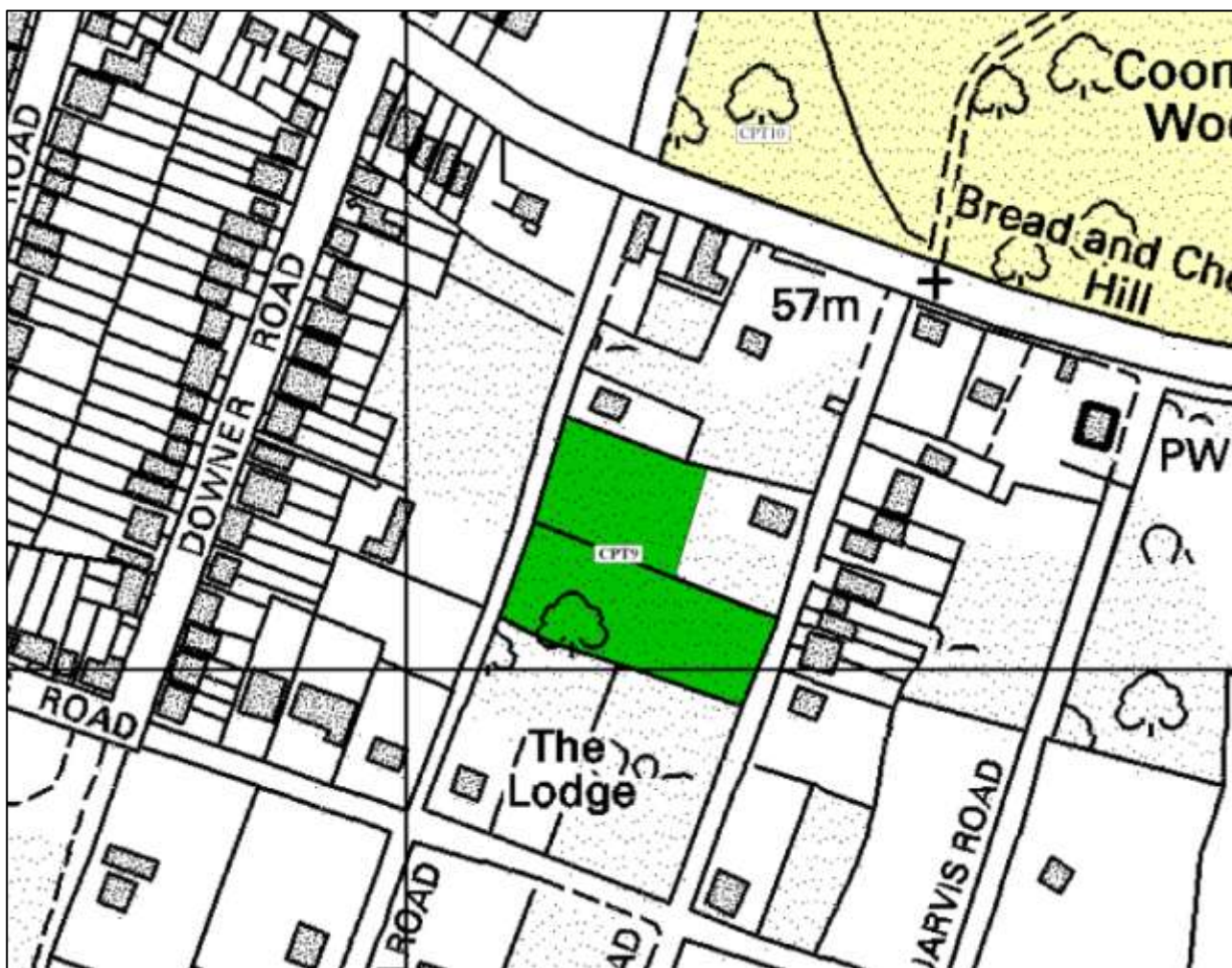
### **Management Issues**

The meadows are currently horse-grazed, and the level of grazing in any one year will govern the condition of the grassland.

**Review Schedule**

**Site Selected:** 1992 (G5)

**Reviewed:** 1994 (G5), 2002 (CP8), 2007 (CP8, reduced), 2012 (CPT8)



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## CPT9 Kents Hill Wood (0.6ha) TQ780880

The canopy is dominated by Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*), Wild Cherry (*Prunus avium*) and Hornbeam (*Carpinus betulus*) with Field Maple (*Acer campestre*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*) and coppiced Hornbeam in the understorey. The ground flora is somewhat sparse, but does include Bluebell (*Hyacinthoides non-scripta*), Yellow Archangel (*Lamium galeobdolon*), Dog's Mercury (*Mercurialis perennis*), Wood Meadow-grass (*Poa nemoralis*) and Giant Fescue (*Festuca gigantea*). Ivy (*Hedera helix*) is dominant in some areas.

## England BAP Priority Habitats

## Lowland Mixed Deciduous Woodland

## Selection Criteria

## HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

## Rationale

There is good evidence that this wood has existed since at least the mid-18<sup>th</sup> Century, although it cannot categorically be proven to be ancient and is rather lacking in indicator species. On balance, the non-ancient criterion appears to be more reliable.

### Condition Statement

This wood is pressed on all sides by housing and suffers from typical misuse, reflected in an apparent decline in the abundance of Bluebells in recent years.

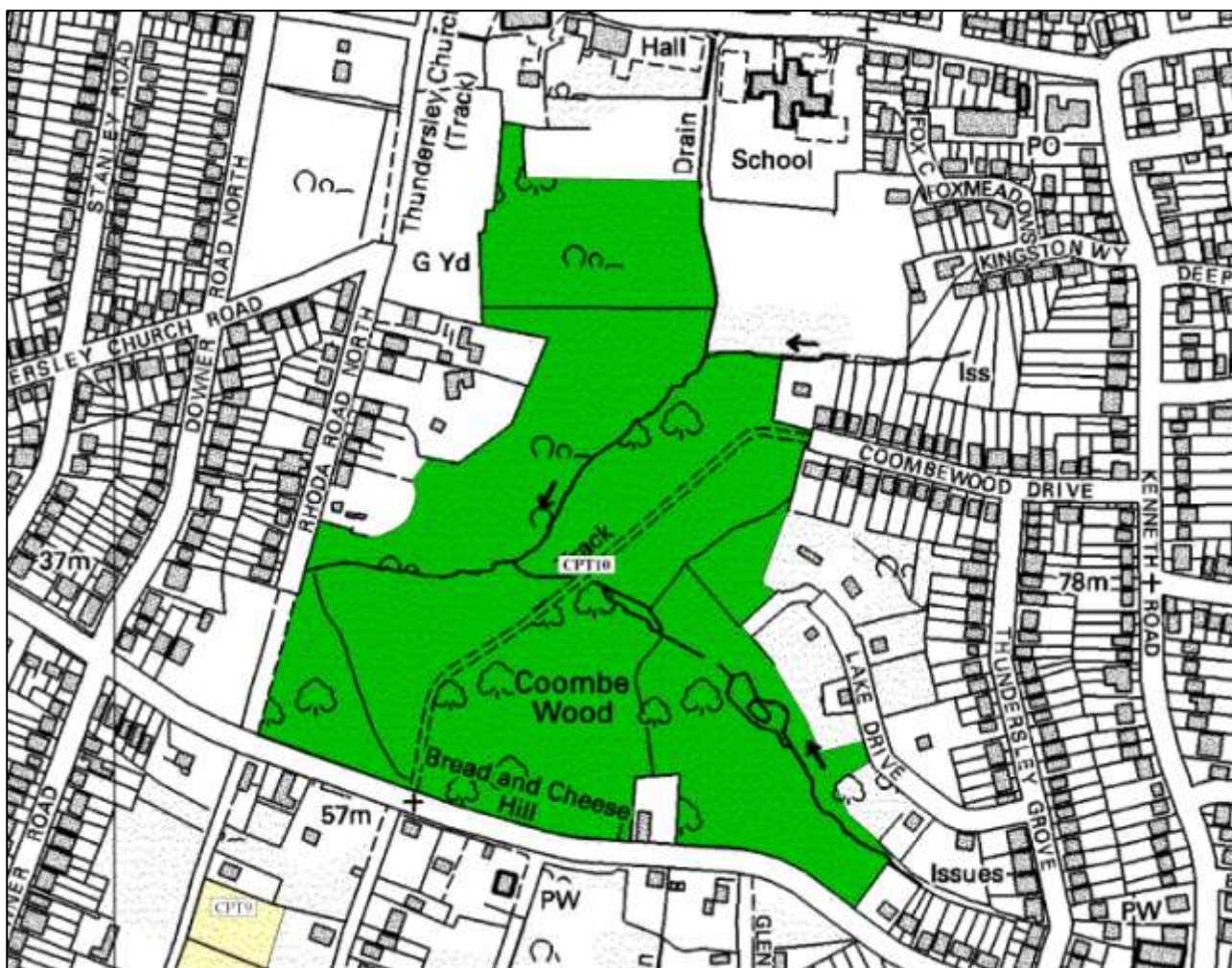
### **Management Issues**

There has been no management in recent years and this may also have contributed in the decline in Bluebell abundance. Selective coppicing would benefit the woodland structure, but given the size of the wood, this should be limited. Sycamore (*Acer pseudoplatanus*) is colonising the wood and it has been used for the dumping of garden rubbish from adjoining properties

### **Review Schedule**

**Site Selected:** 1992 (W16)

**Reviewed:** 1994 (W16), 2002 (CP9), 2007 (CP9), 2012 (CPT9)



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### **CPT10 Coombe Wood (11.3ha) TQ782882**

The majority of this site is ancient woodland, but it also includes sections of more recent secondary woodland, in the southwest corner beyond a prominent wood bank and to the northwest of the stream. During its history, the ancient part has been heavily modified by planting, with Sweet Chestnut (*Castanea sativa*) arriving in this way. There is historical evidence that conifers were planted during the 19<sup>th</sup> century, but none now remains.

The canopy is dominated by Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) with Wild Cherry (*Prunus avium*) and coppiced Hornbeam (*Carpinus betulus*) and Sweet Chestnut. The understorey also contains Hawthorn (*Crataegus monogyna*), Midland Hawthorn (*Crataegus laevigata*), Holly (*Ilex aquifolium*), Field Maple (*Acer campestre*) and elm (*Ulmus* sp.) with small quantities of Hazel (*Corylus avellana*). In the secondary woodland, there are fewer standards and the northernmost section, beyond a chain link fence, is mostly Ash.

The ground flora is rich, with many ancient woodland indicator species, including Soft Shield-fern (*Polystichum setiferum*), Wood Anemone (*Anemone nemoralis*), Bluebell (*Hyacinthoides non-scripta*), Spurge Laurel (*Daphne laureola*), Bush Vetch (*Vicia sepium*), Sanicle (*Sanicula europaea*), Wood Melick (*Melica uniflora*), Hairy-brome (*Bromopsis ramosa*), Wood Millet (*Milium effusum*), Remote Sedge (*Carex remota*) and Dog's Mercury (*Mercurialis perennis*). There are older records of Hairy Wood-rush (*Luzula pilosa*),

Moschatel (*Adoxa moschatellina*) and Goldilocks Buttercup (*Ranunculus auricomus*), the latter of which is very scarce in southeast Essex.

The plateau adjacent to London Road, where the majority of Sweet Chestnut are located, is more open, the ground flora dominated by Creeping Soft-grass (*Holcus mollis*) with scattered Gorse (*Ulex europaeus*) bushes, Bracken (*Pteridium aquilinum*) and an unidentified hawkweed (*Hieracium* sp.), all species of which are noteworthy in Essex. An outcrop of Bagshot sands and gravels is responsible for this variation.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

### **Rationale**

Most of the wood is considered to be ancient and included within the Ancient Woodland Inventory and the remainder satisfies the definition in the England BAP for Lowland Mixed Deciduous Woodland.

### **Condition Statement**

Sections of this wood continue to be lost through annexation into private gardens, particularly on Lake Drive and the dumping of garden rubbish and general public misuse is affecting the quality of the site, particularly around the boundaries.

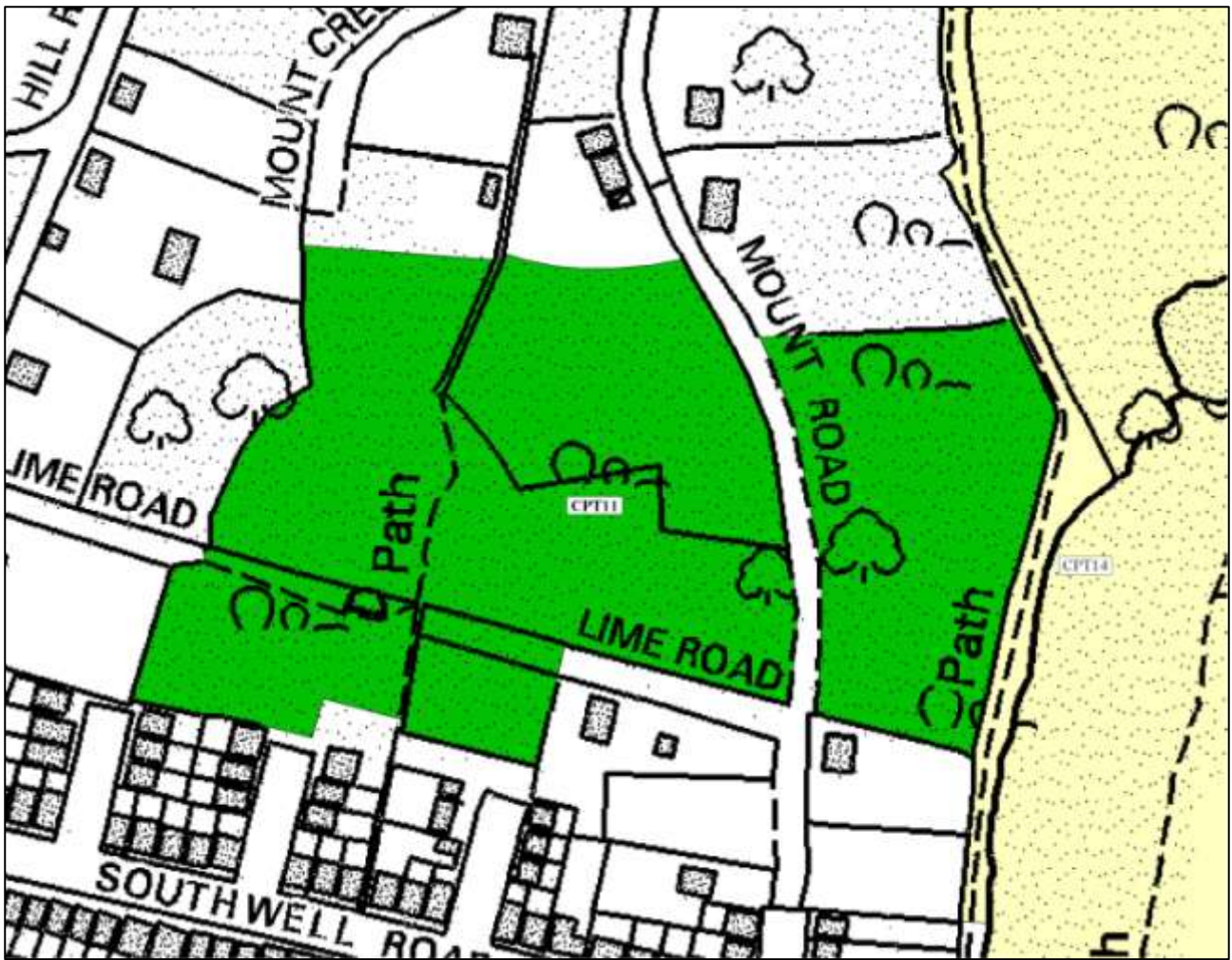
### **Management Issues**

There is no active management of the wood at present, which would be advisable in order to maintain a favourable structure and floral diversity. Some control of non-native species such as Cherry Laurel (*Prunus laurocerasus*) is needed.

### **Review Schedule**

**Site Selected:** 1992 (W3)

**Reviewed:** 1994 (W3), 2002 (CP10), 2007 (CP10), 2012 (CPT10)



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### **CPT11 Mount Road Wood (3.9ha) TQ785877**

This plotland wood, originating naturally through abandonment prior to the Second World War, has a canopy made up of Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) with Wild Cherry (*Prunus avium*), and Hawthorn (*Crataegus monogyna*) and Elder (*Sambucus nigra*) scrub. The ground flora is unremarkable, but shows some of the species typical of secondary woodland including Male Fern (*Dryopteris filix-mas*) and Wood Avens (*Geum urbanum*). Wood Millet (*Milium effusum*) and Sanicle (*Sanicula europaea*), both ancient woodland indicators, are also present and may either be associated with a remnant of older woodland shown on 19th Century maps, or colonists from nearby ancient woodland.

There are old records for all four native reptiles, but no open habitats remain within the site and so their continued presence must be in some doubt. Common Lizard was recorded in 2012. The site also supports a large population of Badgers.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

**Rationale**

The site is not ancient, but satisfies the definition of the England BAP Lowland Mixed Deciduous Woodland habitat and provides a valuable extension to the adjacent Thundersley Glen. Populations of four species of reptile would qualify the site under the SC16 Hotspots for Reptile Diversity criterion, but the condition of the habitat would suggest that the continued presence of all of these species is unlikely.

**Condition Statement**

The site is succeeding to scrub and woodland and now lacks open habitats.

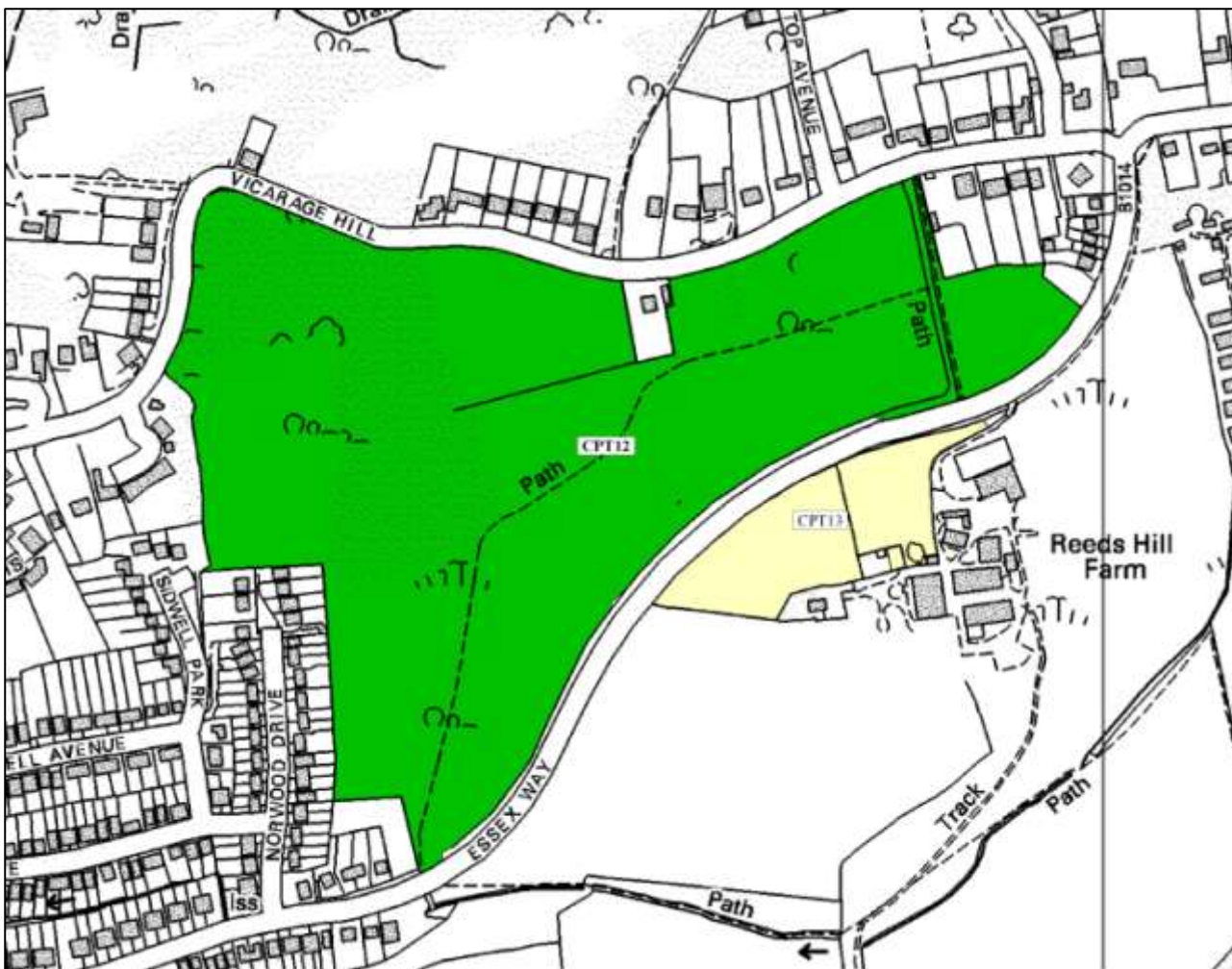
**Management Issues**

There has been some management in recent years, but more action to diversify the age structure of the scrub and young woodland and to reinstate some open habitats would be beneficial. Sycamore (*Acer pseudoplatanus*) is present and may become dominant if not controlled.

**Review Schedule**

**Site Selected:** 1992

**Reviewed:** 1994 (W4), 2002 (CP11), 2007 (CP11), 2012 (CPT11)



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### **CPT12 Vicarage Hill (16.1ha) TQ786864**

This site comprises extensive grassland on the southern slope of the hill, which is in the process of invasion by scrub, combined with secondary woodland and a horse-grazed pasture. The Site's location means that it is also a good point of connection between the Benfleet and Southend Marshes SSSI to the south and, through Boyce Hill Golf Course, Thundersley Glen and adjoining LoWS to the north.

The majority of the site consists of grassland that is undergoing a succession to scrub and young woodland through a lack of recent management. The grassland has to a large extent become dominated by coarse grass species, particularly Tall Fescue (*Schedonorus arundinacea*), Yorkshire-fog (*Holcus lanatus*), and False Oat-grass (*Arrhenatherum elatius*), but a good diversity of grass species remains, including Common Bent (*Agrostis tenuis*), Meadow Barley (*Hordeum secalinum*), Crested Dog's-tail (*Cynosurus cristatus*), Sweet Vernal-grass (*Anthoxanthum odoratum*) and Yellow Oat-grass (*Trisetum flavescens*). Other species include Prickly Sedge (*Carex muricata*), Meadow Vetchling (*Lathyrus pratensis*), Agrimony (*Agrimonia eupatoria*), Meadow Buttercup (*Ranunculus acris*), Wild Carrot (*Daucus carota*), Red Bartsia (*Odontites vernus*), Hairy Tare (*Vicia hirsuta*), Common Centaury (*Centaurea erythraea*), Common Knapweed (*Centaurea nigra* agg.), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Ox-eye Daisy (*Leucanthemum vulgare*). Most significant is a small population of Pale Flax (*Linum bienne*), a scarce plant in the county, featured in the Essex Red Data List.

The horse-grazed pasture adjacent to Vicarage Hill road is similar, but with a more open sward that includes Sheep's Sorrel (*Rumex acetosella*), Common Centaury (*Centaureum erythraea*) and Musk Mallow (*Malva moschata*).

The secondary woodland comprises a canopy of Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*), Sweet Chestnut (*Castanea sativa*) and Sycamore (*Acer pseudoplatanus*) with an understorey of Hawthorn (*Crataegus monogyna*) and Elder (*Sambucus nigra*). Although the woodland is relatively young, it does contain some very large Pedunculate Oaks and a group of large Beech (*Fagus sylvatica*) that predate it. The ground flora includes Bluebell (*Hyacinthoides non-scripta*), Creeping Soft-grass (*Holcus mollis*) and Bracken (*Pteridium aquilinum*).

The site supports a large Badger population.

### **England BAP Priority Habitats**

None

### **Selection Criteria**

HC11 Other Neutral Grassland

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

### **Rationale**

Although of clear conservation significance, the grassland on this site is not a good match for the NVC MG5 community that would constitute the England BAP Lowland Meadows Priority Habitat. Documentary evidence precludes the possibility of the woodland being ancient, but it does conform to the England BAP Priority Habitat.

### **Condition Statement**

A large section of grassland in the eastern half of the Site, from the property on Vicarage Hill east to the footpath, has recently been cleared with the intention of establishing an improved grass sward for domestic purposes. At the time of this review, the grassland is still essentially intact and could be restored, but it is possible that this section will be lost in the near future. The remainder of the grassland is the subject of a restoration proposal as compensation for the loss of LoWS habitat elsewhere in the district.

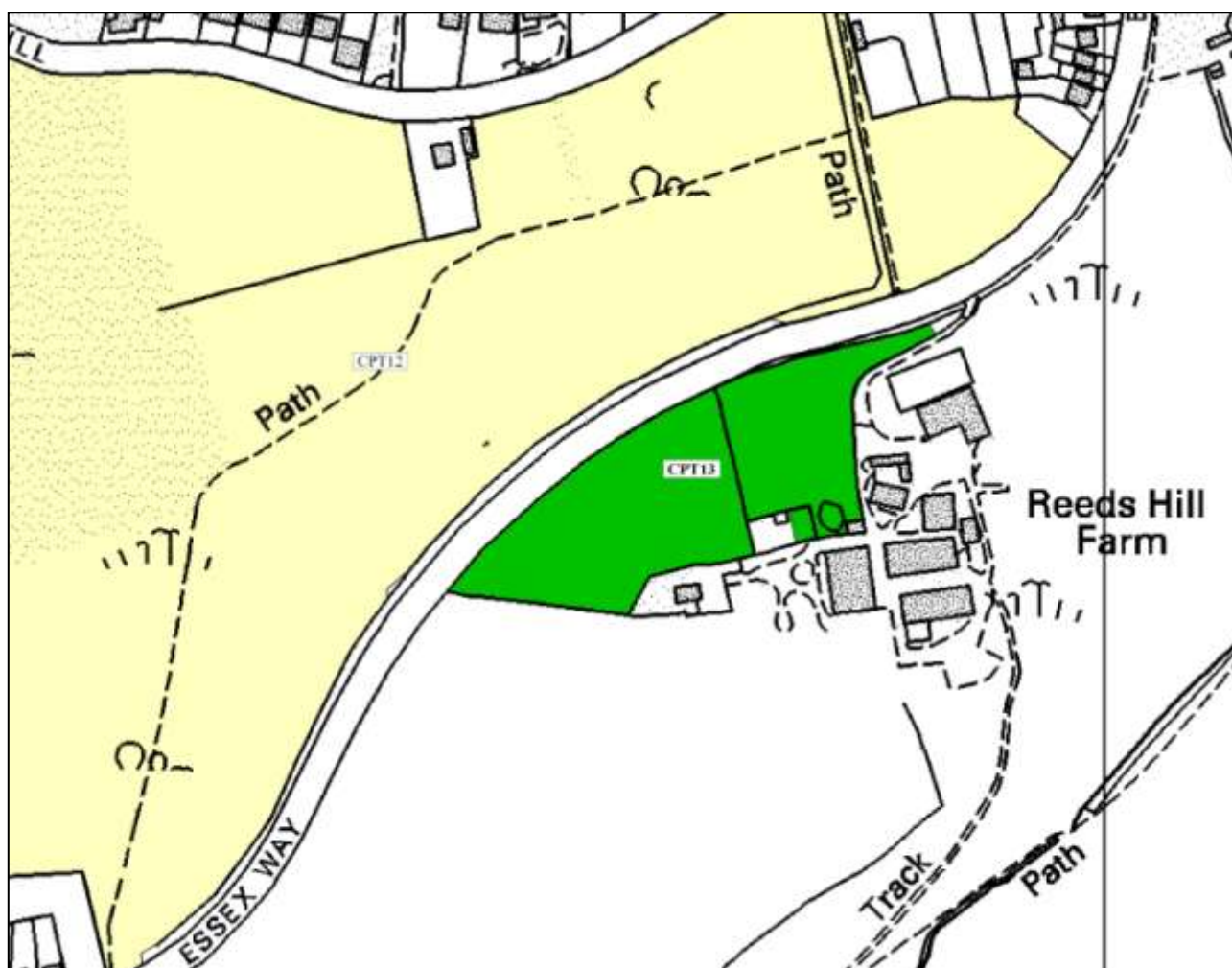
### **Management Issues**

The grassland is in need of scrub clearance and then on-going management in order to maintain its interest and the compensation proposal would achieve this.

### **Review Schedule**

**Site Selected:** 1992 (G7)

**Reviewed:** 1994 (G7), 2002 (CP12), 2007 (CP12), 2012 (CPT12)



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### **CPT13 Reeds Hill Pasture (1.6ha) TQ787864**

This site consists of two pastures associated with Reeds Hill Farm. The larger, western pasture appears to have escaped agricultural improvement to a large extent and consists of an MG5 community. Grass species include Crested Dog's-tail (*Cynosurus cristatus*), Timothy (*Phleum pratense*), Meadow Barley (*Hordeum secalinum*), Common Bent (*Agrostis capillaris*), Meadow Fox-tail (*Alopecurus pratensis*) and Yellow Oat-grass (*Trisetum flavescens*). Flowers are not abundant within the meadow, but it does contain Common Knapweed (*Centaurea nigra*), Burnet Saxifrage (*Pimpinella saxifraga*), Common Vetch (*Vicia sativa*), Meadow Buttercup (*Ranunculus acris*) and Self Heal (*Prunella vulgaris*).

The eastern pasture shows some signs of agricultural improvement, in the presence of White Clover (*Trifolium repens*) and Perennial Rye-grass (*Lolium perenne*), but still retains a reasonable diversity of herbaceous species, including Common Bird's-foot-trefoil (*Lotus corniculatus*) and small quantities of Agrimony (*Agrimonia eupatoria*).

### **England BAP Priority Habitats**

Lowland Meadows

### **Selection Criteria**

HC9 Lowland Meadows

## HC11 Other Neutral Grasslands

### **Rationale**

The community in the western pasture is consistent with the England BAP Lowland Meadows habitat. Although the eastern pasture shows signs of semi-improvement, it retains a reasonable diversity of species that suggests a long history as grassland.

### **Condition Statement**

The western field was horse-grazed at the time of the survey, a management that has retained the ecological interest of the Site. Both fields were in reasonably good condition, although they could be improved by conservation-focussed management regimes.

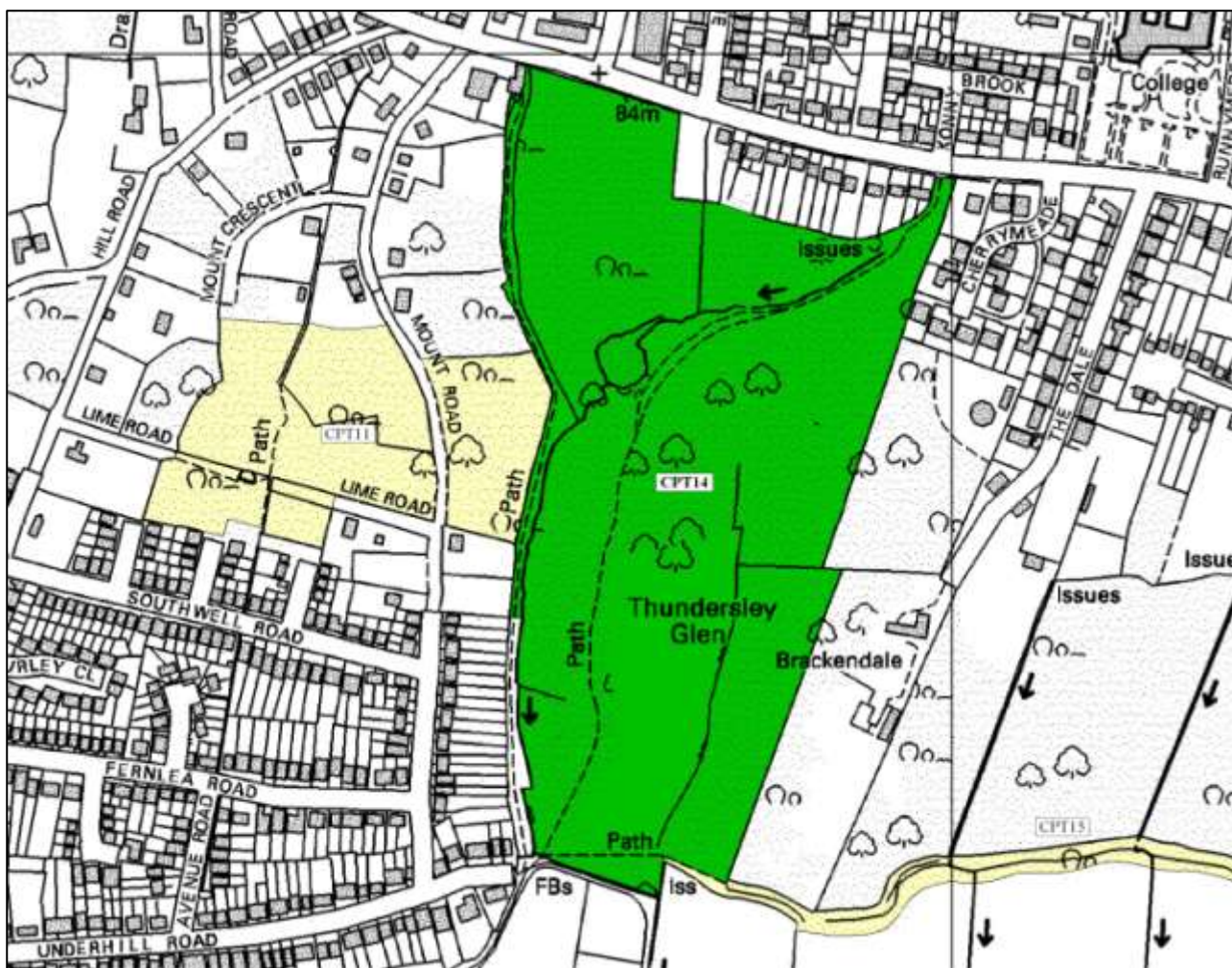
### **Management Issues**

The quality of the habitats on this Site relies on continued sympathetic management by either grazing or low intensity cutting. Over-grazing could reduce the diversity of plant species.

### **Review Schedule**

**Site Selected:** 1992 (G8)

**Reviewed:** 1994 (G8, enlarged), 2002 (CP13), 2007 (CP13), 2012 (CPT13)



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### **CPT14 Thundersley Glen (13.6ha) TQ788876**

Thundersley Glen occupies the western end of the site of Jervis Wood, a very large ancient wood that was virtually destroyed in the early 19<sup>th</sup> Century. A small patch of Jervis Wood still remains in the south-west corner of the Site, as do several ancient hedges, derived from the wood and the lane on the western edge. Most of the fields resulting from the clearance were abandoned in the early 20<sup>th</sup> Century and today the site mainly comprises secondary woodland, acid and neutral grassland and overgrown hedges.

The main tree species are Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*), Field Maple (*Acer campestre*), Hornbeam (*Carpinus betulus*) and birch (*Betula* spp.), with Hawthorn (*Crataegus monogyna*) scrub widespread. Within the woodland is a varied ground flora, including several ancient woodland plants such as Alder Buckthorn (*Frangula alnus*), Bluebell (*Hyacinthoides non-scripta*), Wood Melick (*Melica uniflora*), Yellow Archangel (*Lamium galeobdolon*), Remote Sedge (*Carex remota*), Wood Sedge (*Carex sylvatica*), Black Currant (*Ribes nigrum*), Dog's Mercury (*Mercurialis perennis*), Hairy St. John's-wort (*Hypericum hirsutum*) and Sanicle (*Sanicula europaea*). Wood Anemone (*Anemone nemorosa*) is present along the western edge. The south eastern woodland block is more recent with mostly young Ash and Oak, but is bounded to the west by an old hedge.

The canopy in the central part of the Site, to the east of the main path, is more open with scattered oaks covering an acid grassland sward of Sweet Vernal-grass (*Anthoxanthum odoratum*), Common Bent-grass (*Agrostis capillaris*), Sheep's Fescue (*Festuca ovina*), Wavy Hair-grass (*Deschampsia flexuosa*), Heath Wood-rush (*Luzula multiflora*) and Sheep's Sorrel (*Rumex acetosella*) with Betony (*Betonica officinalis*), Wood Sage (*Teucrium scorodonia*), Wood Meadow-grass (*Poa nemoralis*), Honeysuckle (*Lonicera periclymenum*), Bracken (*Pteridium aquilinum*) and Bramble (*Rubus fruticosus* agg.). Parts of this area are frequently mown for amenity purposes, but the remainder is being shaded out by woody re-growth.

In the lower, southern half of the site, the more neutral grassland is scrubbing over through a lack of any recent management, but it retains species such as Crested Dog's-tail (*Cynosurus cristatus*), Common Knapweed (*Centaurea nigra* agg.), Agrimony (*Agrimonia eupatoria*), Goat's-beard (*Tragopogon pratensis*), Heath Speedwell (*Veronica officinalis*) and Creeping Cinquefoil (*Potentilla repens*).

There is a large pond containing Fool's-water-cress (*Apium nodosum*), Bulrush (*Typha latifolia*), Yellow Iris (*Iris pseudacorus*) and a variegated form of Reed Canary Grass (*Phalaris arundinacea* var. *picta*), which spreads rapidly and now dominates some sections. The surface of the water is being over-run by the non-native and invasive Floating Pennywort (*Hydrocotyle ranunculoides*) and duckweeds (*Lemna* spp.). Pendulous Sedge (*Carex pendula*) and Giant Horsetail (*Equisetum telmateia*) occur around its margins.

The Site supports a large Badger population and could support a significant invertebrate assemblage, but no systematic recording is known to have taken place. The Nationally Scarce case bearing moth *Coleophora solitariella*, whose larvae feed on Greater Stitchwort (*Stellaria holostea*), is known to be present.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

Lowland Meadows

Lowland Dry Acid Grassland

### **Selection Criteria**

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

HC9 Lowland Meadows

HC13 Heathland and Acid Grassland

### **Rationale**

A small part of the Site is a well-documented fragment of ancient woodland, and the remaining woodland fits the England BAP Lowland Mixed Deciduous Woodland habitat, as well as benefiting from the presence of ancient woodland derived features. The grassland in the more open areas is a mixture of acid grassland communities in the northern half and neutral grassland in the southern, both of which conform to the relevant England BAP Priority Habitats, Lowland Dry Acid Grasslands and Lowland Meadows.

### **Condition Statement**

The more open areas are declining in value through a lack of positive conservation management, although the more mature woodland is stable.

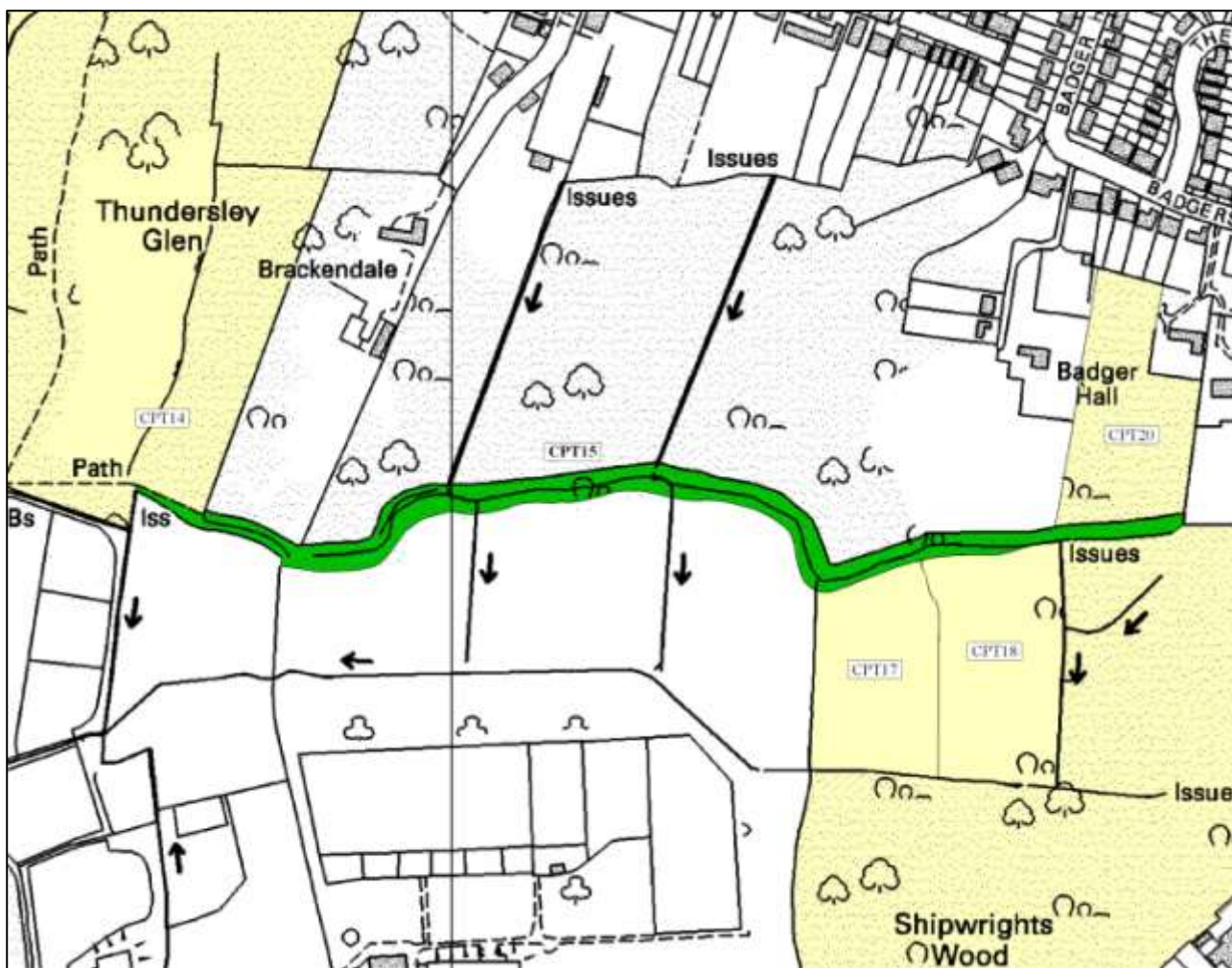
## **Management Issues**

The Site's habitats are complex and it would benefit from an overall management strategy that could balance the requirements of different communities and features. The more open areas would benefit from thinning to prevent the canopy closing and to encourage stronger growth in the remaining trees, as well as widespread removal of developing scrub growth. Grassland management needs to be more balanced between amenity requirements and conservation maintenance. Several invasive species are present including Giant Hogweed (*Heracleum mantegazzianum*) near the pond, Floating Pennywort in it, Cherry laurel (*Prunus laurocerasus*), Snowberry (*Symphoricarpos albus*) and Wilson's Honeysuckle (*Lonicera nitida*), all of which have the potential to adversely affect the site's conservation value. Further threats come from adjoining domestic properties, in the shape of the dumping of garden rubbish and boundary creep.

## **Review Schedule**

**Site Selected:** 1992 (W5)

**Reviewed:** 1994 (W5), 2002 (CP14), 2007 (CP14), 2012 (CPT14)



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### **CPT15 Jervis Wood Lane (1.3ha) TQ791873**

This site is derived from an ancient lane formed from the southern boundary of the Jervis Wood, a large ancient woodland largely destroyed in the early 19<sup>th</sup> Century. Besides its antiquity and its woodland plant communities, the site's importance lies in its position as a woodland corridor linking the Thundersley Glen, Shipwrights Wood, Badger Hall Wood, and Coopers Wood LoWS. .

The canopy is principally composed of large standards of Pedunculate Oak (*Quercus robur*) with some Ash (*Fraxinus excelsior*) and Hornbeam (*Carpinus betulus*). Its ancient origin is demonstrated by the presence of Wild Service Tree (*Sorbus torminalis*), Spindle (*Euonymus europaeus*) and an exceptionally rich flora for such a lane, containing many ancient woodland indicator species. These include Moschatel (*Adoxa moschatellina*), Wood Anemone (*Anemone nemorosa*), Sanicle (*Sanicula europaea*), Wood Melick (*Melica uniflora*), Yellow Archangel (*Lamium galeobdolon*), Spurge Laurel (*Daphne laureola*), Wood Millet (*Milium effusum*), Wood Sedge (*Carex sylvatica*), Dog's Mercury (*Mercurialis perennis*) and Bluebell (*Hyacinthoides non-scripta*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

## HC8 Hedgerows and Green Lanes

### **Rationale**

The ancient woodland criterion could justifiably have been used given the documentary evidence, but because of the clear function of the Site, it is better represented as a green lane. It is proven as a ghost outline of an ancient wood and provides a valuable habitat connection.

### **Condition Statement**

The lane is well used as a thoroughfare, but this has not adversely affected its condition, which is stable.

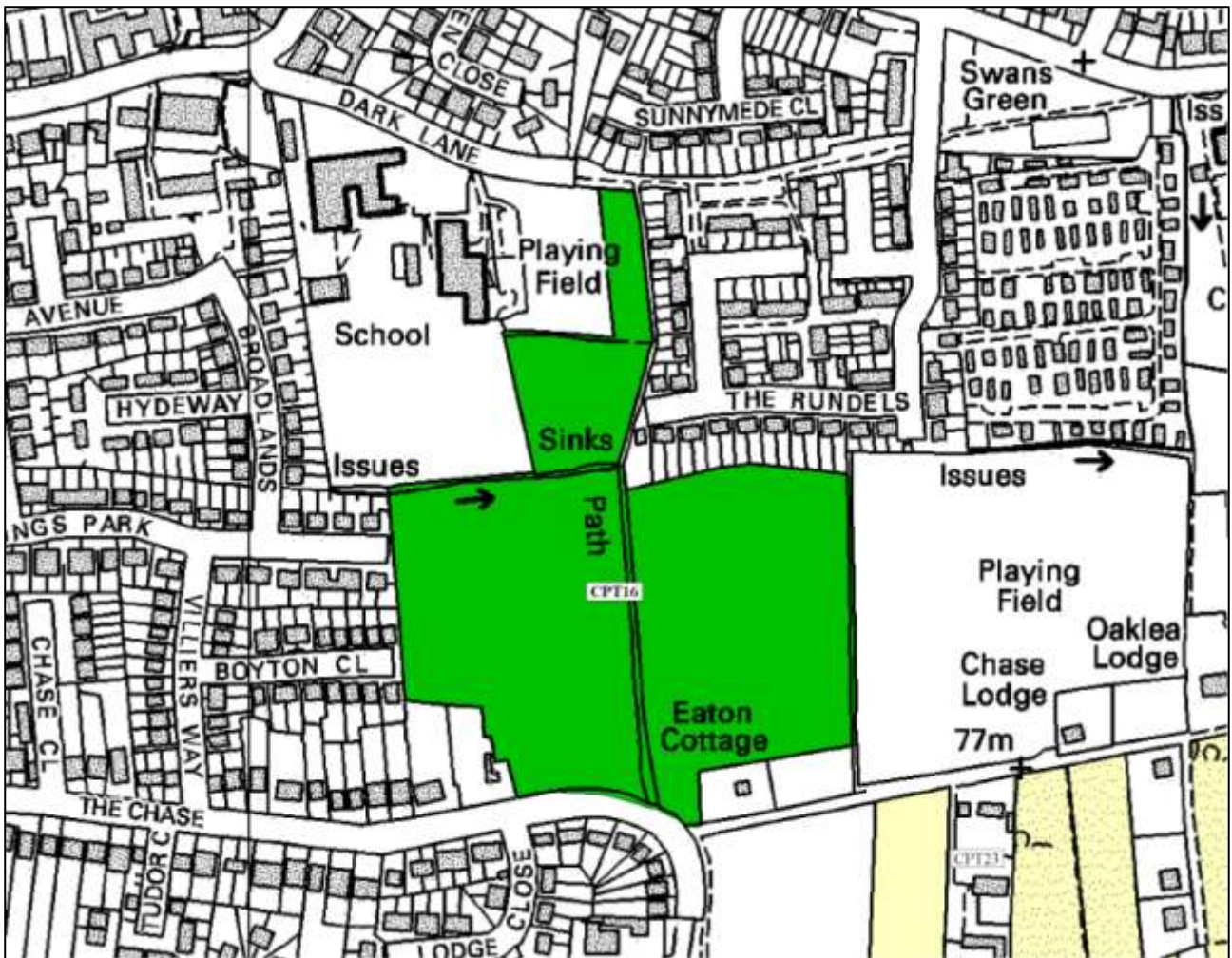
### **Management Issues**

No action is immediately necessary, although some coppicing or thinning may be advisable in future years. Work to improve the surface of the path should be avoided or carried out in a very sensitive manner.

### **Review Schedule**

**Site Selected:** 1994 (W19)

**Reviewed:** 2002 (CP15), 2007 (CP15), 2012 (CPT15)



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### **CPT16 The Chase Paddocks (5.3ha) TQ792884**

This collection of paddocks represents a scarce and declining habitat in the county, the grass communities having apparently escaped agricultural improvement. Typically, the sward comprises Crested Dog's-tail (*Cynosurus cristatus*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Red Fescue (*Festuca rubra*) and Meadow Foxtail (*Alopecurus pratensis*). Herbaceous species include Common Bird's-foot Trefoil (*Lotus corniculatus*), Meadow Buttercup (*Ranunculus acris*), Common Knapweed (*Centaurea nigra*), Red Bartsia (*Odontites vernus*), Oxeye Daisy (*Leucanthemum vulgare*) and Common Sorrel (*Rumex acetosa*).

Several plants indicative of ancient, unimproved grassland have been recorded: Sneezewort (*Achillea ptarmica*), Heath Grass (*Danthonia decumbens*) and Pepper Saxifrage (*Silau silaus*)

The northern end of the eastern pasture contains scattered Pedunculate Oaks (*Quercus robur*) and these add to the conservation significance of the Site, as do the large oaks within the boundary hedges.

### **England BAP Priority Habitats**

Lowland Meadows

**Selection Criteria**

HC9 Lowland Meadows

**Rationale**

The grass community matches the MG5 type that qualifies the Site under the Lowland Meadows England BAP Priority habitat.

**Condition Statement**

The site is currently horse-grazed, which will maintain the interest of the site, but is not ideal as it tends to result in lower floristic abundance.

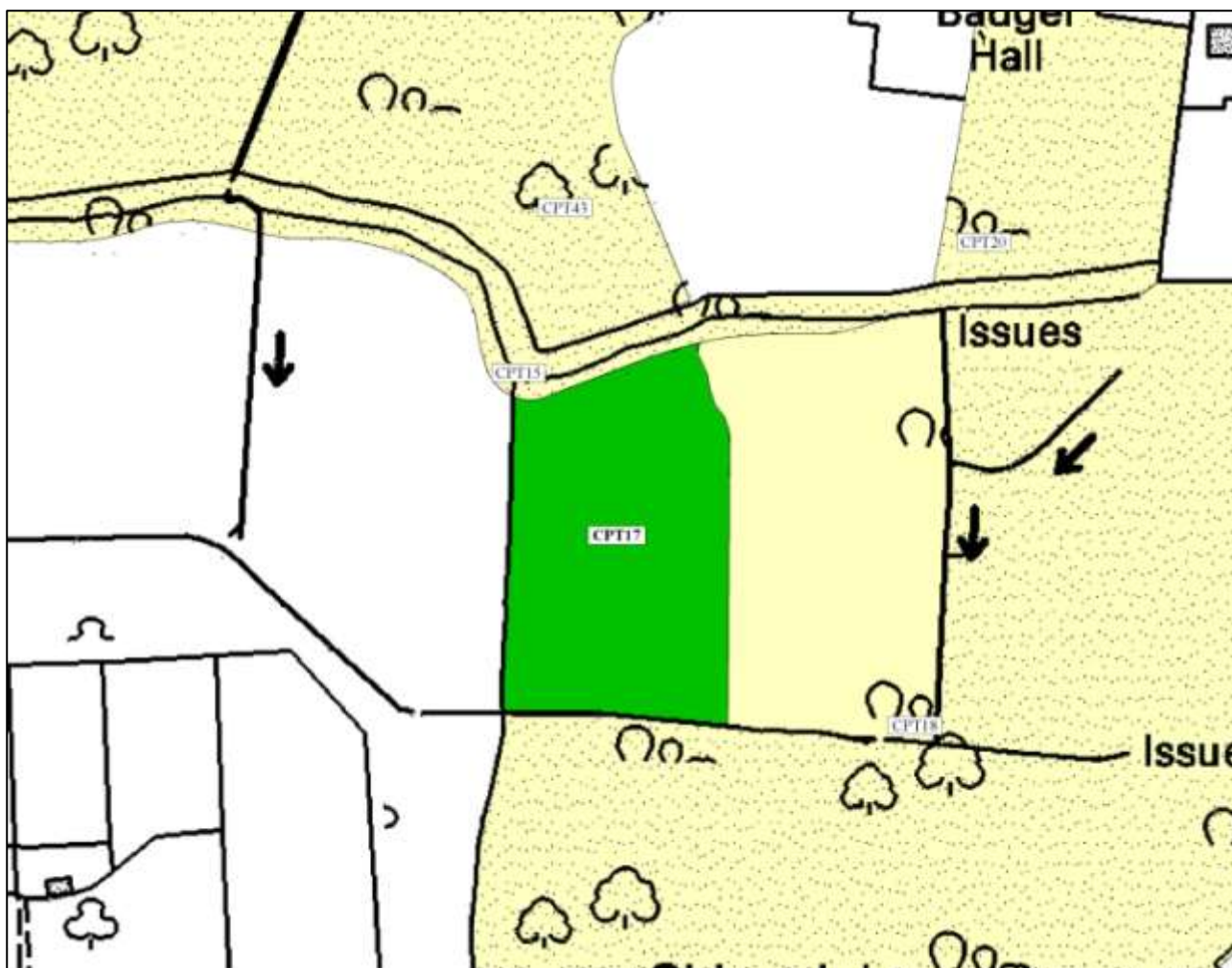
**Management Issues**

Current management is not aimed at conservation maintenance and so the site will be vulnerable to inappropriate actions, including over-grazing.

**Review Schedule**

**Site Selected:** 1992 (G9)

**Reviewed:** 1994 (G9, enlarged), 2002 (CP16), 2007 (CP16), 2012 (CPT16)



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### **CPT17 Shipwrights Meadow (1.2ha) TQ793872**

This meadow supports varied grassland communities as a result of its physical characteristics and management history. In essence it is a good match for the Lowland Meadows MG5 community, but there are sections on the lower slope to the south where damp conditions favour a community more typical of an MG9 poorly drained permanent pasture. As a result of low management effort in past years, there are also sections of MG1 and W24 communities, the former characterised by the dominance of coarse grasses and the latter by the spread of Bramble (*Rubus fruticosus* agg.) and woody scrub.

The bulk of the meadow is characterised by the dominance of Common Knapweed (*Centaurea nigra*), with a consequently reduced abundance of grass species, of which Common Bent (*Agrostis capillaris*), Red Fescue (*Festuca rubra*) and Soft Brome (*Bromus hordeaceus*) are the most frequent, with localised patches of Tall Fescue (*Schedonorus arundinaceus*), False Oat-grass (*Arrhenatherum elatius*) and Cock's-foot (*Dactylis glomerata*). The more frequent herbaceous species, in addition to knapweed, are Meadow Buttercup (*Ranunculus acris*), Agrimony (*Agrimonia eupatoria*), Fleabane (*Pulicaria dysenterica*), Meadow Vetchling (*Lathyrus pratensis*) and Common Bird's-foot-trefoil (*Lotus corniculatus*).

Other significant species include Grass Vetchling (*Lathyrus nissolia*), Musk Mallow (*Malva moschata*), Glaucous Sedge (*Carex flacca*), Red Bartsia (*Odontites vernus*), Fairy Flax (*Linum catharticum*) and Hairy St John's-wort (*Hypericum hirsutum*).

In the damper areas Fen Bedstraw (*Galium uliginosum*), an Essex Red Data List species that is rare and declining within the county, is the most significant species present. Other species in these areas include: Greater Bird's-foot-trefoil (*Lotus pedunculatus*), Marsh Thistle (*Cirsium palustre*) and Ragged Robin (*Lychnis flos-cuculi*).

## **England BAP Priority Habitats**

Lowland Meadows

### **Selection Criteria**

HC9 Lowland Meadows

HC11 Other Neutral Grasslands

### **Rationale**

The meadow predominantly supports an MG5 community and so qualifies as England BAP Priority habitat, but the Other Neutral Grasslands criterion is included to recognise the diversity of the sward.

### **Condition Statement**

The condition of the Site has slightly improved in recent years through more consistent, positive management, including some of the sward being left uncut each year to benefit invertebrates.

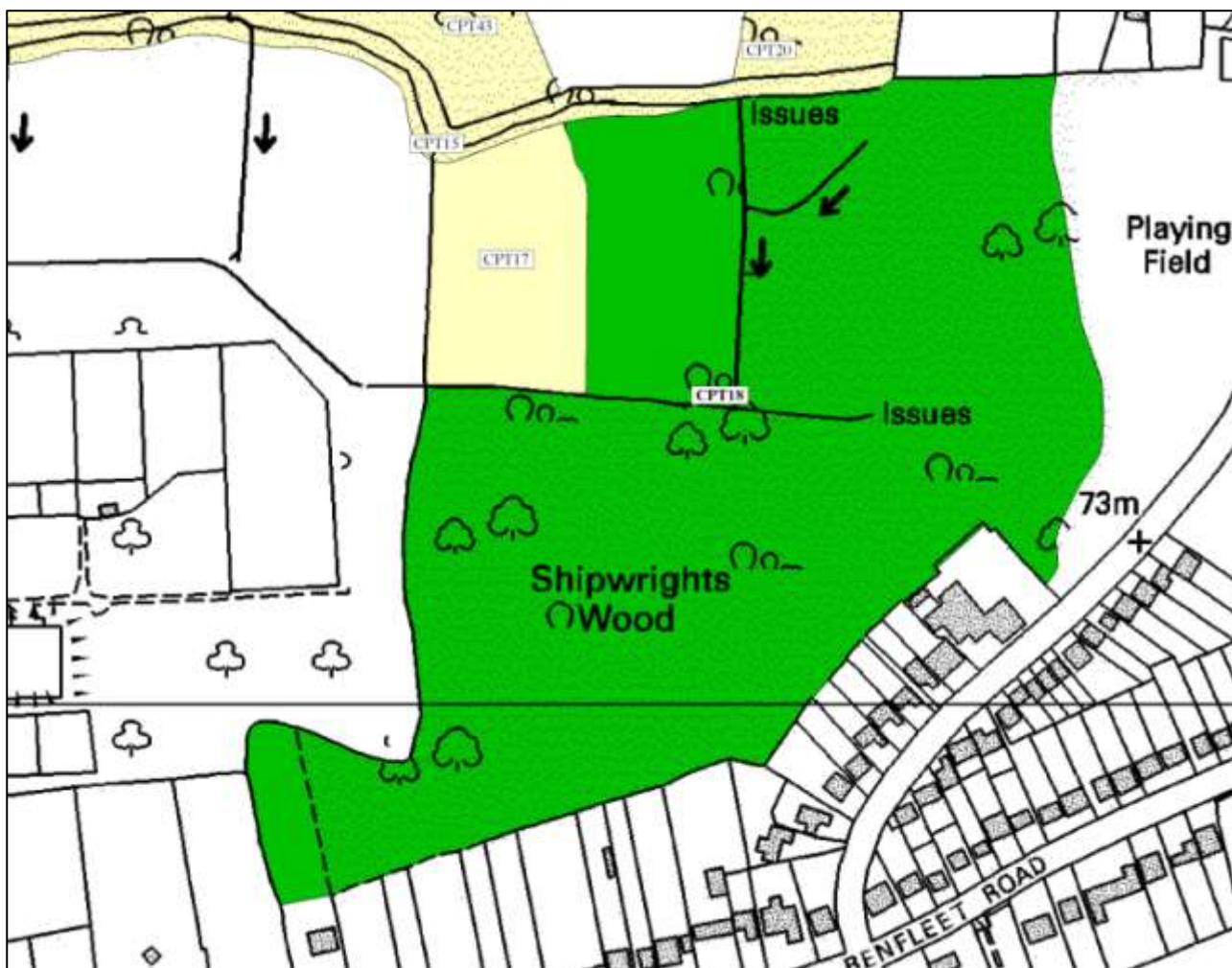
### **Management Issues**

The spread of scrub is a constant threat on this site, which could be addressed in part by more intensive management to remove these negative species (including Bramble) instead of repeatedly cutting them. At present the cuttings are not being removed from the meadow when it is cut, which leads to enrichment and mulching, both of which encourage undesirable species.

### **Review Schedule**

**Site Selected:** 1992 (G11)

**Reviewed:** 1994 (G11), 2002 (CP17), 2007 (CP17), 2012 (CPT17)



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### **CPT18 Shipwrights Wood (12.1ha) TQ794871**

This site comprises two ancient woodland blocks, Shipwrights Wood and Jervis Wood East (the remnant of a much larger woodland largely destroyed in the early 19<sup>th</sup> Century), with a smaller area of recent secondary woodland.

Both ancient woods lie on steep valley slopes and landslips, with Shipwrights Wood extending south to Benfleet Road until the early 20<sup>th</sup> Century. Their canopy is complex, but comprises mainly Hornbeam (*Carpinus betulus*) coppice, with lesser amounts of coppiced Sweet Chestnut (*Castanea sativa*), Ash (*Fraxinus excelsior*) birch (*Betula* spp.), Field Maple (*Acer campestre*), Wild Cherry (*Prunus avium*) and Aspen (*Populus tremula*). Standards are rare, with occasional Pedunculate Oak (*Quercus robur*) mostly in the western half. The understorey includes Hazel (*Corylus avellana*), Holly (*Ilex aquifolium*), Hawthorn (*Crataegus monogyna*) and Midland Hawthorn (*Crataegus laevigata*).

The ground flora layers is also varied, including a good range of ancient woodland plants, with Bluebell (*Hyacinthoides non-scripta*) abundant, along with Remote Sedge (*Carex remota*), Wood Melick (*Melica uniflora*), Yellow Archangel (*Lamium galeobdolon*), Wood Speedwell (*Veronica montana*), Hart's-tongue (*Phyllitis scolopendrium*), Wood Millet (*Milium effusum*) and Enchanter's-nightshade (*Circaea lutetiana*). Swampy areas support Moschatel (*Adoxa moschatellina*), Pendulous Sedge (*Carex pendula*) and Giant Horsetail (*Equisetum telmateia*).

The recent woodland in the north-western section forms a natural extension to the ancient wood canopy. The western section comprises a dense stand of Hawthorn (*Crataegus monogyna*), with occasional Pedunculate Oak, Ash and birch. The eastern section is a more mature wood of Ash and Oak, with some Hornbeam and a varied shrub layer that includes Hazel, Dogwood (*Cornus sanguinea*) and Hawthorn. The unusually swampy ground conditions support Giant Horsetail and Pendulous Sedge in abundance, with Lesser Celandine (*Ranunculus ficaria*), Sanicle and Bluebell amongst a varied flora that includes many ancient woodland indicators colonising from Shipwrights Wood itself.

There is a diverse and abundant dead wood resource within the wood, which may support an interesting invertebrate assemblage, but no surveys have been carried out.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-Ancient Sites

### **Rationale**

The ancient status of the majority of the Site is supported by good documentary evidence, while the more recent woodland in part matches the England BAP Priority Habitat, has a good structure and supports the adjacent ancient woodland.

### **Condition Statement**

The condition of the site is good, although this can't continue without some positive management.

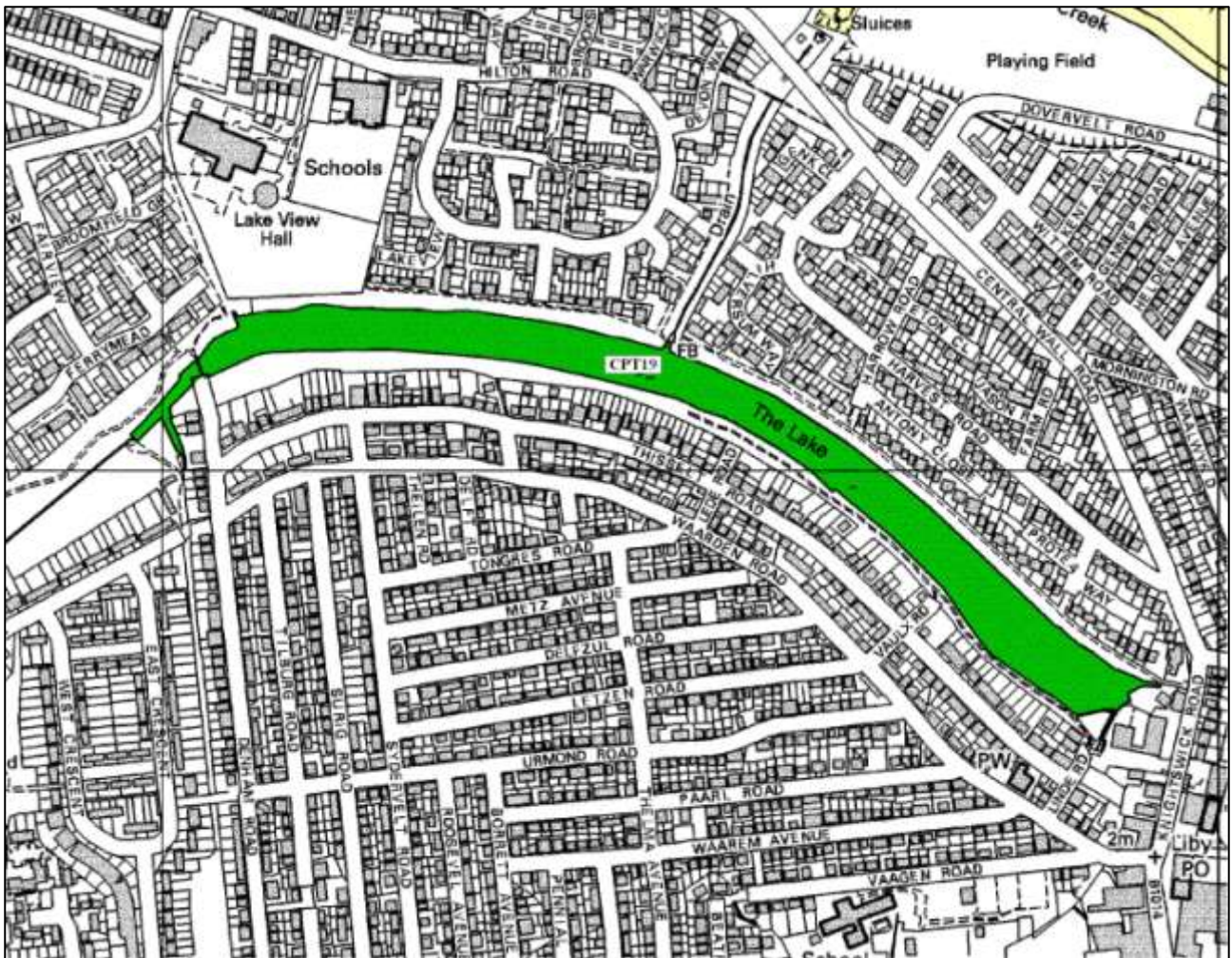
### **Management Issues**

The Site would benefit from some woodland management in order to diversify its structure, coppicing Hornbeam in the ancient sections and Ash in the more recent areas. Cherry Laurel (*Prunus laurocerasus*) is widespread and should be removed to prevent the understorey and ground layer becoming swamped.

### **Review Schedule**

**Site Selected:** 1992 (W6 and W6b)

**Reviewed:** 1994 (W6 and W20), 2002 (CP18), 2007 (CP18), 2012 (CPT18)



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### **CPT19 The Lake, Canvey (4.5ha) TQ795840**

This site supports the largest pure stand of Common Reed (*Phragmites australis*) in the borough and is also the largest body of open water in Castle Point. In addition to the reed, emergent vegetation includes Sea Club-rush (*Bolboschoenus maritimus*) and Great Willowherb (*Epilobium hirsutum*). Marginal flora reflects the brackish nature of the lake and its origin as a grazing marsh fleet, with Sea Aster (*Aster tripolium*), Common Saltmarsh-grass (*Puccinellia maritima*), Saltmarsh Rush (*Juncus gerardii*), Wild Celery (*Apium graveolens*), Sea Beet (*Beta maritima*), Meadow Barley (*Hordeum secalinum*) and small quantities of the Nationally Scarce Sea Clover (*Trifolium squamosum*). Within the reedbeds are a series of grassy islands supporting Bramble (*Rubus fruticosus* agg.), Elder (*Sambucus nigra*) and Blackthorn (*Prunus spinosa*).

The lake supports a good population of Reed Warbler and is used by a variety of other waterfowl including Grey Heron, Coot and Mute Swan. The nationally rare, but spreading, Scarce Emerald Damselfly (*Lestes dryas*) is present and it is likely that a good assemblage of reed specialist and aquatic invertebrates is present, but no surveys have been done.

### **England BAP Priority Habitats**

Reedbed

**Selection Criteria**

HC15 Reedbeds

**Rationale**

The Site is dominated by this England BAP Priority Habitat.

**Condition Statement**

The site remains in reasonable condition, although natural succession will lead to inevitable decline.

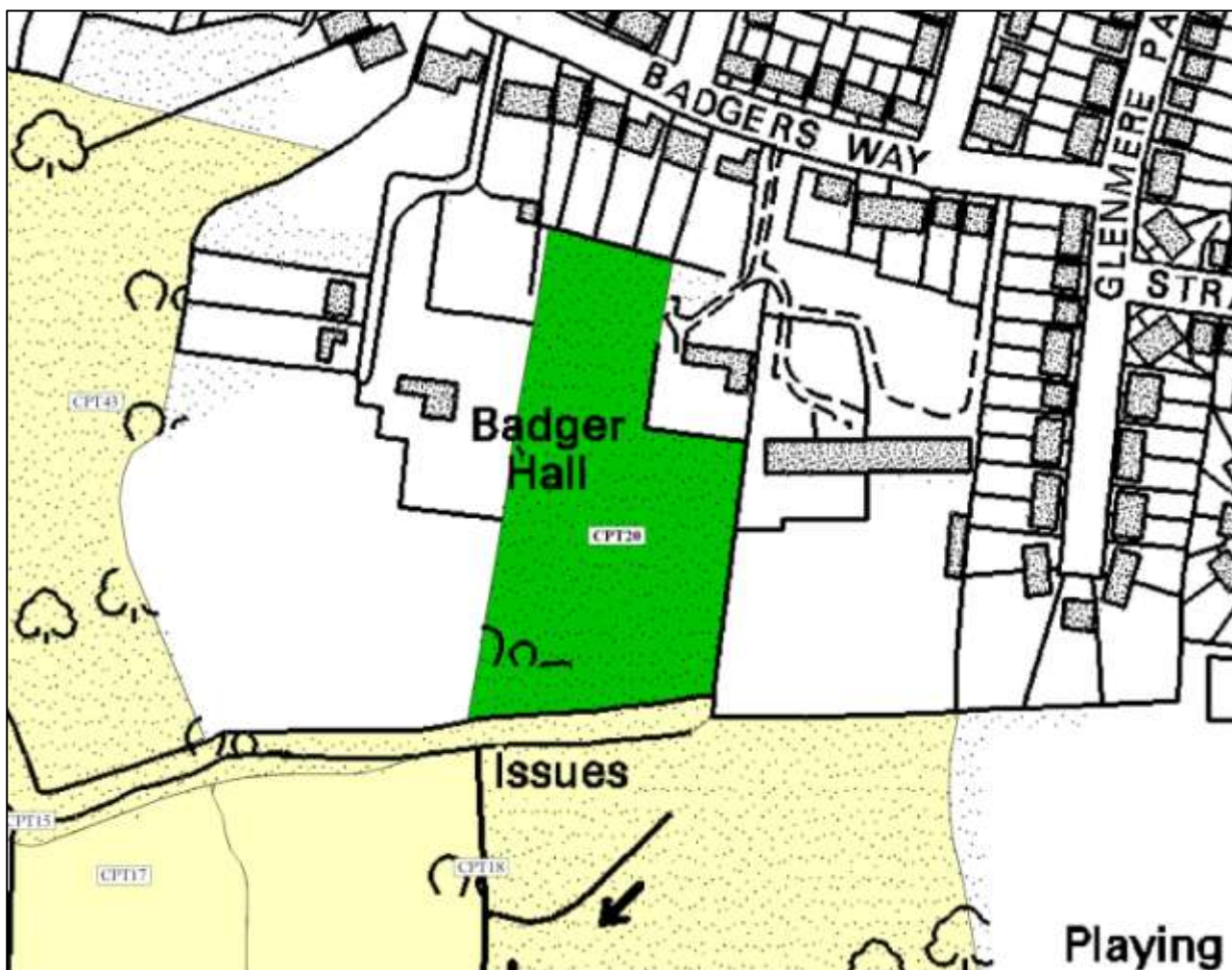
**Management Issues**

The site receives extensive use in the form of fishing, feeding the ducks and general public access and amenity, with consequent problems of litter, disturbance and trampling. Silt removal on a cyclical basis would have a beneficial effect on the reed community, but would be practically difficult and costly.

**Review Schedule**

**Site Selected:** 2002 (CP19)

**Reviewed:** 2007 (CP19), 2012 (CPT19)



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### **CPT20 Coopers Wood (1.2ha) TQ794874**

This site comprises a block of mainly recent secondary woodland on the site of the ancient Jervis Wood with a small glade of species-rich unimproved acidic grassland along its western edge. The woodland canopy is mainly Pedunculate Oak (*Quercus robur*), Hornbeam (*Carpinus betulus*) and birch (*Betula* spp.), with lesser amounts of Aspen (*Populus tremula*) and Holly (*Ilex aquifolium*) in the understorey. The varied ground flora includes Male Fern (*Dryopteris filix-mas*), Giant Horsetail (*Equisetum telmateia*), Bluebell (*Hyacinthoides non-scripta*) and Honeysuckle (*Lonicera periclymenum*) amongst Bramble (*Rubus fruticosus*).

The glade is becoming dominated by Bramble and many of the key species previously present may have been lost or may only persist in small quantities. These species include Devil's-bit Scabious (*Succisa pratensis*), Golden Rod (*Solidago virgaurea*), Mouse-ear Hawkweed (*Pilosella officinarum*), Tormentil (*Potentilla erecta*) and Trailing St. John's-wort (*Hypericum humifusum*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-Ancient Sites

**Rationale**

Although documentary evidence shows that it is not ancient, it has a good structure and benefits from the presence of adjacent ancient blocks. In its current condition the glade does not qualify as the England BAP habitat Lowland Dry Acid Grassland, so that criterion is not used.

**Condition Statement**

The condition of the grassy glade is declining, but the woodland is satisfactory.

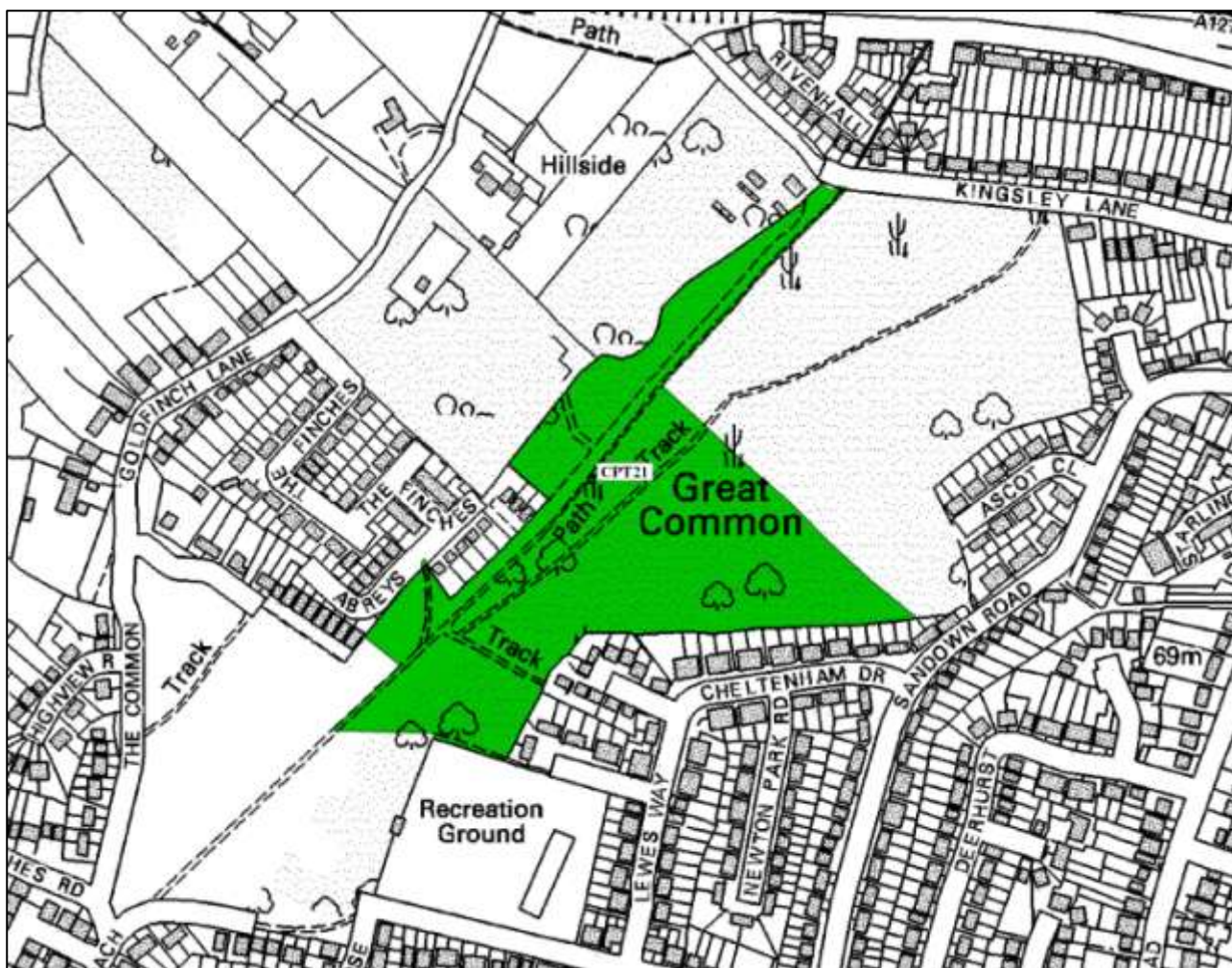
**Management Issues**

The glade requires urgent management to retain its character and the key species that it contains. There has been some woodland management at the southern end of the site in recent years, but this is unlikely to be guided by conservation principles.

**Review Schedule**

**Site Selected:** 1994 (W21 Badgers Way Wood)

**Reviewed:** 2002 (CP20 Coopers Wood), 2007 (CP20), 2012 (CPT20)



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### **CPT21 Thundersley Great Common Wood (5.0ha) TQ795893**

This Site comprises the woodland that separates the two sections of the Thundersley Great Common SSSI, including a small section of grassland in the southwest. The species composition and character of the woodland suggest that there is an ancient influence. The bank features to the northwest and southeast of the site are considered to represent the boundaries of long-lost adjacent ancient woodlands and support large coppiced Hornbeam (*Carpinus betulus*), Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*) and a particularly noteworthy Wild Service Tree (*Sorbus torminalis*). Some sections of wood are depicted within the common on the 1777 map of Essex produced by Chapman and André and later maps suggest a scattering of trees that would not have been unusual on a common of this nature.

The woodland is composed of Pedunculate and Sessile Oak (*Quercus petraea*) standards with Hornbeam coppice and an understorey that includes Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*), Aspen (*Populus tremula*), Field Maple (*Acer campestre*) and birch (*Betula* sp.). The ground flora reflects the acidic, sandy nature of the soil, although it is generally quite poor, with Wood Sage (*Teucrium scorodonia*), Bracken (*Pteridium aquilinum*), Creeping Soft-grass (*Holcus mollis*), Greater Stitchwort (*Stellaria holostea*) and Honeysuckle (*Lonicera periclymenum*) as typical components. It also includes ancient woodland indicators such as Bluebell (*Hyacinthoides non-scripta*), Common Cow-wheat (*Melampyrum pratense*), Black Currant (*Ribes nigrum*), Wood Millet (*Milium effusum*),

Hairy-brome (*Bromopsis ramosa*), Wood Meadow-grass (*Poa nemoralis*) and Remote Sedge (*Carex remota*). Wood Anemone (*Anemone nemorosa*) occurs close to the western boundary ditch.

In the southwest corner is a small section of acid grassland containing Red Fescue (*Festuca rubra*), Common Bent (*Agrostis capillaris*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Heath Wood-rush (*Luzula multiflora*) and Common Knapweed (*Centaurea nigra*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

### **Rationale**

The woodland community matches the NVC W10 type, which is included within the definition of the England BAP Priority Habitat. With the suggestion of some ancient influence, the Ancient Woodland Sites criterion could have been used, but the evidence is considered to be too equivocal.

### **Condition Statement**

The Site is in good condition overall.

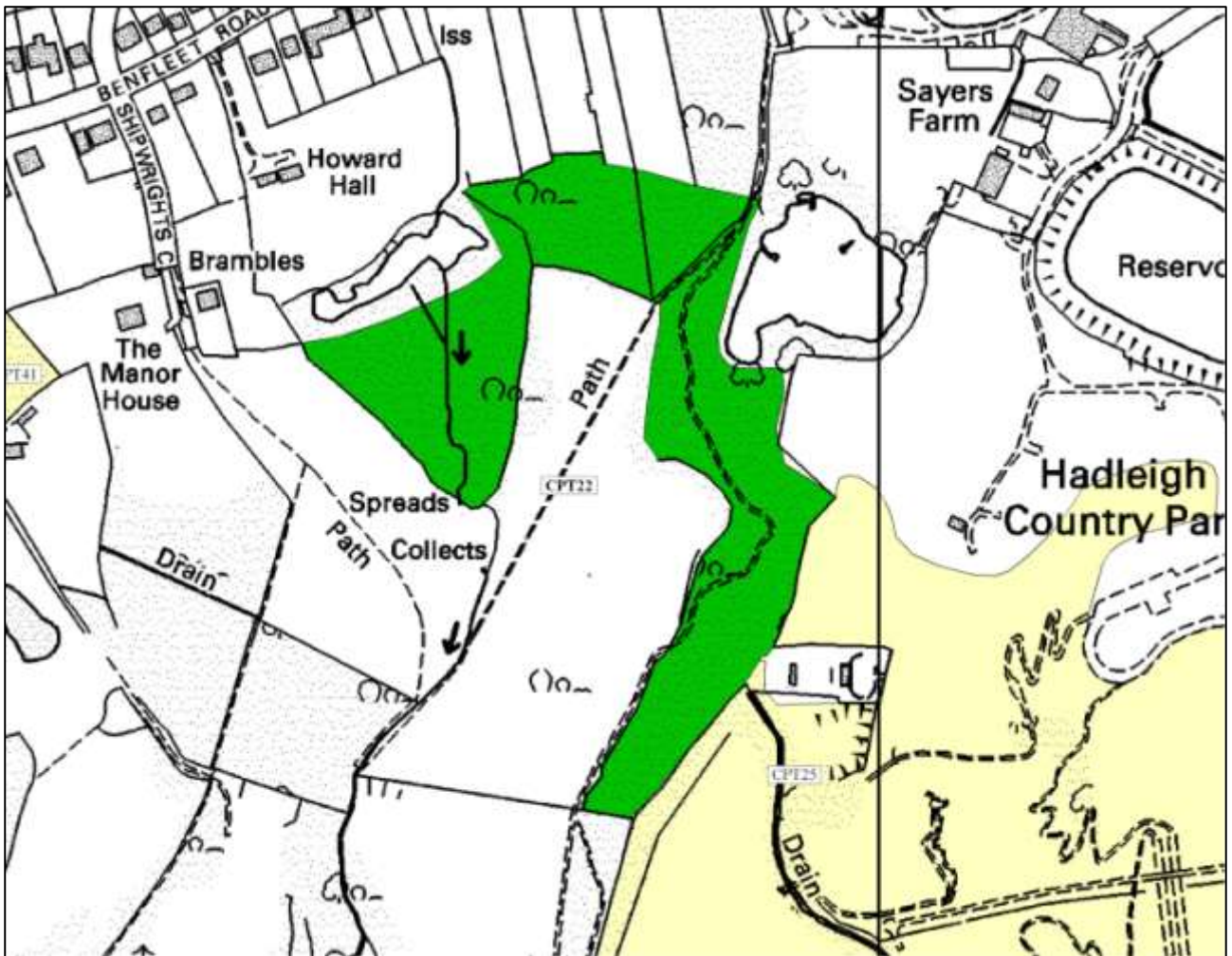
### **Management Issues**

Some thinning work may be advisable in the future to maintain a diverse woodland structure. Cherry Laurel should be removed and action may be required to remove the Spanish Bluebell (*Hyacinthoides hispanica*) that is present.

### **Review Schedule**

**Site Selected:** 1992

**Reviewed:** 1994 (W7), 2002 (CP21), 2007 (CP21), 2012 (CPT21)



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### **CPT22 Nine Acre Wood (4.6ha) TQ798867**

The canopy throughout the west and central areas is typified by Ash (*Fraxinus excelsior*) with Pedunculate Oak (*Quercus robur*) and Hornbeam (*Carpinus betulus*), and an understorey of Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*) and Spindle (*Euonymus europaeus*). The western section is bisected by a stream, which forms an extensive swampy area at its southern end within which poplars (*Populus* sp.) have been planted. Many of the standards in this area are dead or dying and the understorey is made up of willow (*Salix* sp.) scrub with abundant Pendulous Sedge (*Carex pendula*) and Moschatel (*Adoxa moschatellina*). The central section supports a ground flora that includes Dog's Mercury (*Mercurialis perennis*) Bluebell (*Hyacinthoides non-scripta*) and Yellow Archangel (*Lamium galeobdolon*).

The eastern arm has fewer canopy trees, of Ash and Oak, and hence a more open and varied structure. Elm (*Ulmus* sp.) is abundant and the understorey includes Hazel, Elder (*Sambucus nigra*) and Field Maple (*Acer campestre*). The ground flora is poor, with Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus* agg.) and Common Nettle (*Urtica dioica*) dominating large sections. Bluebell and Yellow Archangel are also present in this section.

Soft Shield Fern (*Polystichum setiferum*), an Essex Red Data List species, has been recorded from this site, but not recently.

## **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

### **Rationale**

The site is included in the Ancient Woodland Inventory, as documentary evidence would suggest that the site has always been wooded, even though its composition does not provide a compelling argument for its inclusion.

### **Condition Statement**

The quality of most of this site is not good, and part along the northern boundary has been lost to garden management.

### **Management Issues**

The eastern arm should be returned to a woodland structure, as it is likely that a better ground flora would develop under a better canopy.

### **Review Schedule**

**Site Selected:** 1992

**Reviewed:** October 2012



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### **CPT23 Thundersley Plotlands (18.5ha) TQ796881**

This Site represents the last remaining blocks of old plotland habitat within urban Thundersley, comprising a mosaic of grassland, woodland and scrub that provides a significant Green Space resource to the local population. Until the early 20<sup>th</sup> Century the whole area was open fields associated with Thundersley Lodge, but by the 1920s it had been divided up into plotland strips, the structure of which are still visible now. After the war many of these plots had been used for housing, but others had been abandoned and were developing woodland habitats. It is only in the last 20 years that the pressure for development in the areas has increased again, following the post-war urbanisation of Thundersley.

The Site has developed a characteristic suite of habitats and species with conservation interest in their own right, as well as serving as a stepping stone between the Daws Heath woodlands to the east and the LoWS complex to the south of Kiln Road.

Woodland areas are generally dominated by Pedunculate Oak (*Quercus robur*), with lesser amounts of Ash (*Fraxinus excelsior*), Birch (*Betula* spp.), Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*) and Holly (*Ilex aquifolium*). A few much older boundary ditch and bank features support larger oaks with coppiced Hornbeam (*Carpinus betulus*) and are a remnant of long-cleared woodland shown in 18<sup>th</sup> Century maps. Younger blocks of woodland are typically a mixture of oak and Hawthorn, but also contain a wide variety of

other trees including Aspen (*Populus tremula*), birch (*Betula* sp.), Wild Cherry (*Prunus avium*), elm (*Ulmus* sp.) and Sycamore (*Acer pseudoplatanus*). The ground flora is generally poor with a high proportion of Bramble (*Rubus fruticosus* agg.), Common Nettle (*Urtica dioica*) and Cow Parsley (*Anthriscus sylvestris*), but more interesting species do occur in some areas including Pendulous Sedge (*Carex pendula*), Bush Vetch (*Vicia sepium*), Bluebell (*Hyacinthoides non-scripta*), Sanicle (*Sanicula europaea*) and Broad-leaved Helleborine (*Epipactis helleborine*).

Grassland habitats are principally variants of the MG5 Lowland Meadow community and their grass swards are typified by Sweet Vernal Grass (*Anthoxanthum odoratum*), Crested Dog's-tail (*Cynosurus cristatus*), Red Fescue (*Festuca rubra*), Timothy (*Phleum pratense*), Meadow Fox-tail (*Alopecurus pratensis*), bents (*Agrostis* spp.), with under-managed areas dominated by Yorkshire-fog (*Holcus lanatus*), False Oat-grass (*Arrhenatherum elatius*) and Cock's-foot (*Dactylis glomerata*). Typical herbaceous species include Common Knapweed (*Centaurea nigra* agg.), Meadow Buttercup (*Ranunculus acris*), Grass Vetchling (*Lathyrus nissolia*), Meadow Vetchling, *Lathyrus pratensis*, Ox-eye Daisy (*Leucanthemum vulgare*) and Common Cat's-ear (*Hypochaeris radicata*). The quality of grassland blocks varies according to past and current management.

To the east of Wensley Road, a section of the meadow contains a community more typical of acidic, sandy soils, with Heath Grass (*Danthonia decumbens*) dominant, along with Heath Wood-rush (*Luzula multiflora*) and Hop Trefoil (*Trifolium campestre*).

Common Lizard, Slow Worm and Badger are known to occur in various parts of the Site.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

Lowland Meadows

### **Selection Criteria**

HC28 Small-component Mosaics

HC31 Urban Sites

### **Rationale**

Small parts of the site undoubtedly satisfy the England BAP Priority habitat descriptions for woodland and neutral grassland, but in themselves would be too small or fragmented to satisfy those criteria. However, the combined significance of all of these habitat blocks as a wildlife resource and as an amenity for local communities (even if direct access is not possible) is such that the mosaic and Urban Sites criteria can be justified.

### **Condition Statement**

Condition varies according to management, but many blocks are in good condition; those that aren't are either over-grazed or subject to neglect.

### **Management Issues**

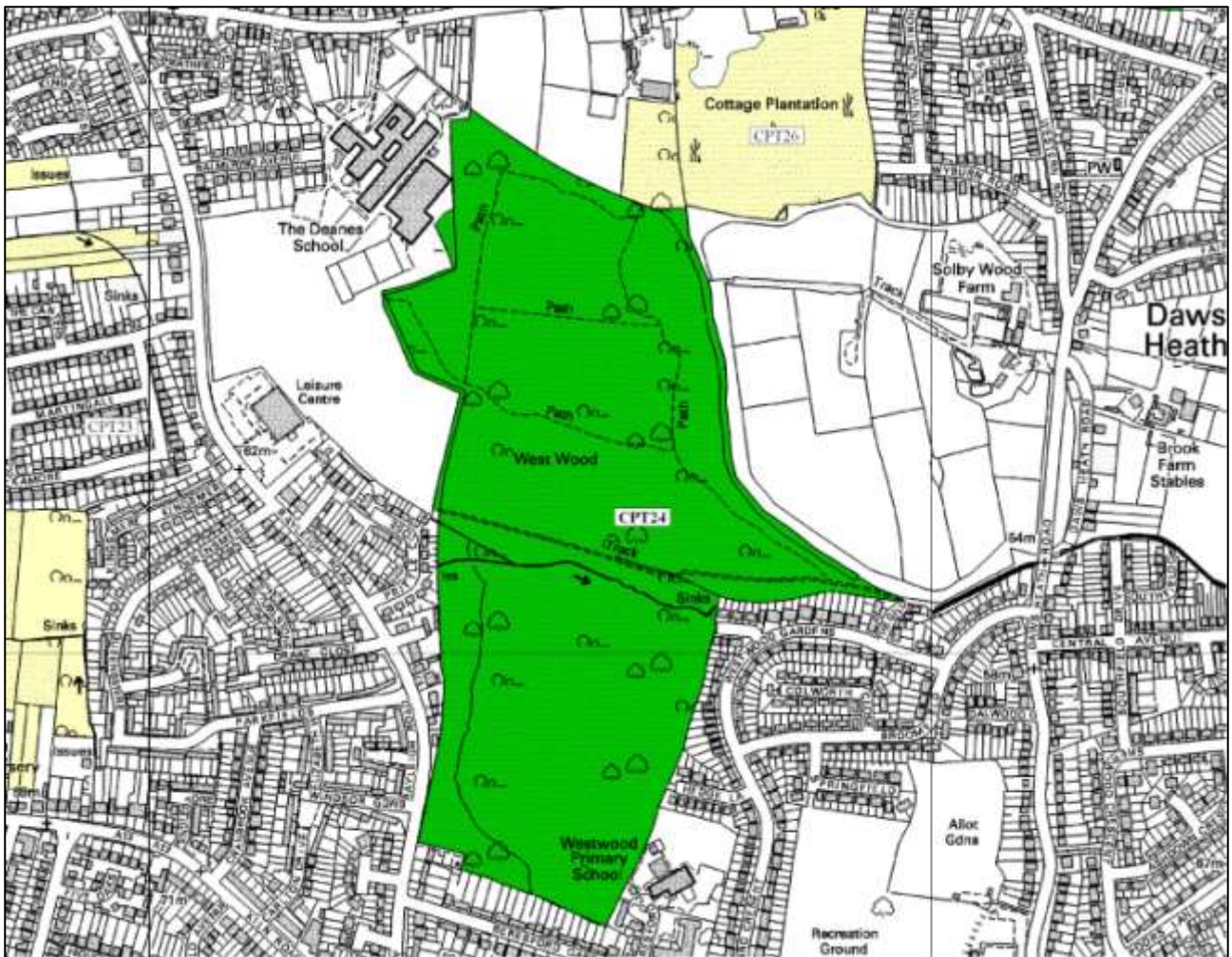
Planning consent has already been granted on part of the Site, which if enacted will result in the loss of almost a third of the remaining area, with consequent impacts on the remainder as a result of increased human activity. Further development pressure is also likely. The encroachment of gardens onto the site continues to be a threat, as does inappropriate use, such as for the dumping of garden rubbish. The future of the grassland

habitats is very much reliant on horse-grazing, but this makes them vulnerable to over-grazing.

**Review Schedule**

**Site Selected:** 1992 (M3 and M4)

**Reviewed:** 19914 (M3 and M4), 2002 (CP23 enlarged), 2007 (CP23), 2012 (CPT23)



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### **CPT24 West Wood (33.1ha) TQ805881**

This predominantly ancient wood is bisected by Prittle Brook, with plateaus rising to north and south, and is little changed since the Middle Ages. To the north of Prittle Brook, all standards were removed during the Second World War and so those now present are all younger.

The canopy is dominated by Pedunculate and Sessile Oak (*Quercus robur* and *Q. petraea*) with Downy and Silver Birch (*Betula pubescens* and *B. pendula*) and coppiced Hornbeam (*Carpinus betulus*) and Sweet Chestnut (*Castanea sativa*). Rowan (*Sorbus aucuparia*) is also present with an abundance of Wild Service-tree (*Sorbus torminalis*) and the understorey includes Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*). There is a single very large Beech (*Fagus sylvatica*) to the south of Prittle Brook.

The ground flora is varied including the Essex Red Data List species Common Cow-wheat (*Melampyrum pratense*), Woodruff (*Galium odoratum*) and Great Wood-rush (*Luzula sylvatica*) as well as many other species that are indicative of ancient woodland, including Wood Melick (*Melica uniflora*), Wood Anemone (*Anemone nemorosa*), Remote Sedge (*Carex remota*), Bluebell (*Hyacinthoides non-scripta*), Wood Millet (*Milium effusum*), Hairy-brome (*Bromopsis ramosus*), Wood Sedge (*Carex sylvatica*), Wood Meadow-grass (*Poa*

*nemoralis*) and Black Currant (*Ribes nigrum*), Hairy Wood-rush (*Luzula pilosa*), Bush Vetch (*Vicia sepium*) and Slender St John's-wort (*Hypericum pulchrum*).

The wood supports the England BAP Priority species Southern Wood Ant (*Formica rufa*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

### **Rationale**

Documentary evidence for the ancient status of this wood is extremely clear.

### **Condition Statement**

Overall the wood is in good condition.

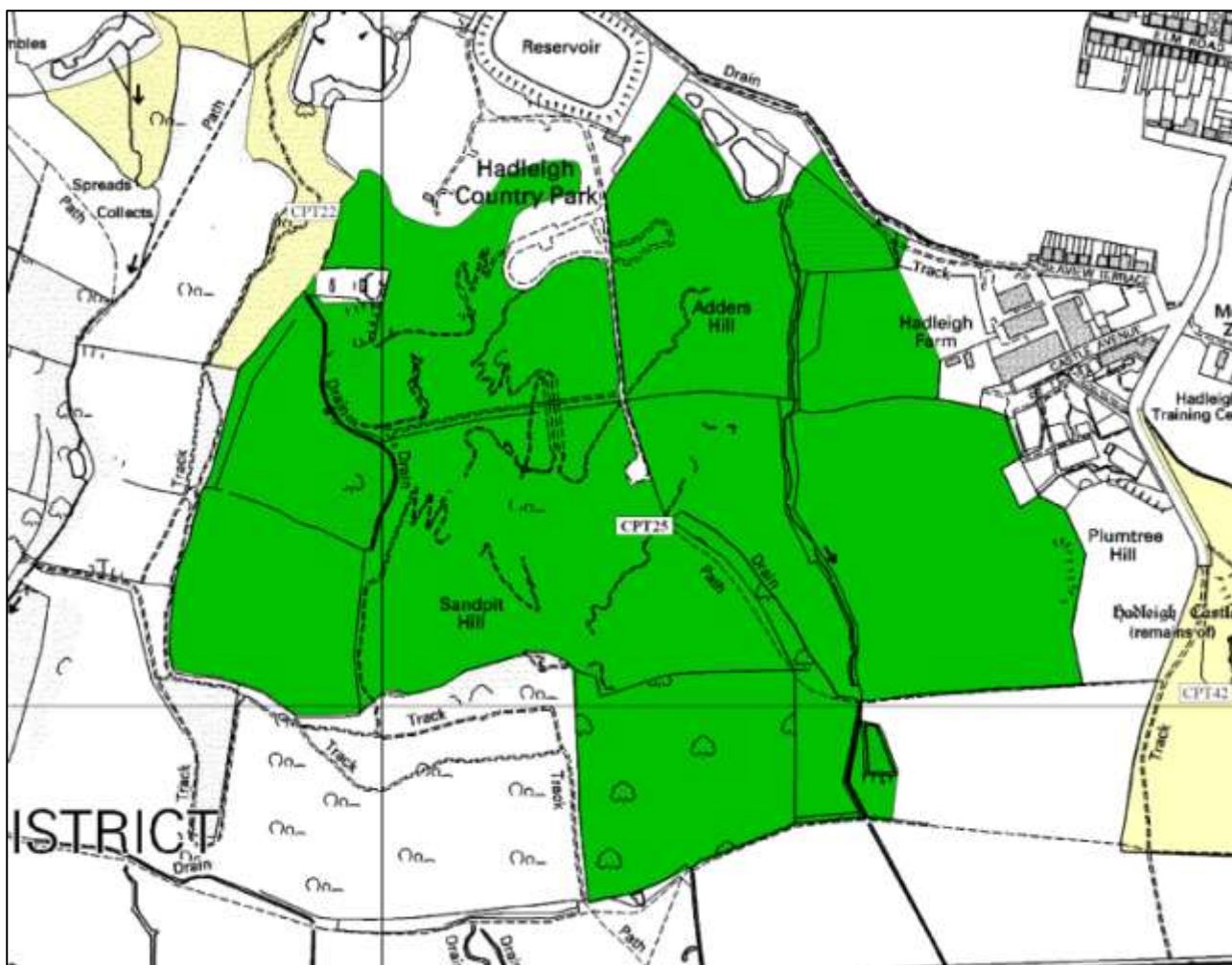
### **Management Issues**

The site is under active conservation management with a regular programme of coppicing that should preserve its diversity. The presence of non-native species should be monitored, especially that of Variegated Yellow Archangel (*Lamium galeobdolon* subsp. *argentatum*), which is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Other undesirable species include a pink-sorrel (*Oxalis* sp.) and Cherry Laurel (*Prunus laurocerasus*).

### **Review Schedule**

**Site Selected:** 1992 (W9)

**Reviewed:** 1994 (W9), 2002 (CP24), 2007 (CP24), 2012 (CPT24)



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### **CPT25 Castle Farm (53.4ha) TQ802862**

This site is made up of a complex mosaic of acid grassland, neutral grassland, woodland and scrub, which make up an old landscape that escaped systematic agricultural improvement because of its topography, centred on the three adjacent hills: Sandpit, Adders and Round Hills. Landslips and other exposures of bare sand are important ecological features of the landscape. To the south and west is the Benfleet and Hadleigh Marshes SSSI, to which this Site forms a valuable extension.

The summits and steeper slopes of the hills support a typically species poor acid grassland community characterised by the dominance of Common Bent (*Agrostis capillaris*) with Crested Dog's-tail (*Cynosurus cristatus*), Red Fescue (*Festuca rubra*), Sheep's Sorrel (*Rumex acetosella*), Grey Sedge (*Carex divulsa*), Heath Speedwell (*Veronica officinalis*) and Autumn Hawkbit (*Scorzoneroides autumnalis*). Between the hills the grassland community is similar, although more diverse and a lack of management has led to the increased frequency of coarse species such as Cock's-foot (*Dactylis glomerata*) and False Oat-grass (*Arrhenatherum elatius*). Additional species include Agrimony (*Agrimonia eupatoria*), Common Knapweed (*Centaurea nigra* agg.), Meadow Barley (*Hordeum secalinum*) and Common Bird's-foot Trefoil (*Lotus corniculatus*). Waxcaps, fungi indicative of undisturbed old grassland, are also present.

The field at the southern end of the site is moderately species-rich, although also being over-run by coarse grasses, containing Meadow Barley, Ox-eye Daisy (*Leucanthemum vulgare*), Common Centaury (*Centaureum erythraea*), Grass Vetchling (*Lathyrus nissolia*), Meadow Vetchling (*Lathyrus pratensis*) and Common Bird's-foot-trefoil and the Essex Red Data List species Small-flowered Buttercup (*Ranunculus parviflora*).

Within the grassland is a range of scrub, largely scattered Hawthorn (*Crataegus monogyna*), but including pure stands of Gorse (*Ulex europaeus*). There are also a significant number of mature trees including lime (*Tilia* sp.), Sycamore (*Acer pseudoplatanus*), Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*).

The woodland is all secondary and dominated by Pedunculate Oak with Ash, Field Maple (*Acer campestre*), Hazel (*Corylus avellana*) and Hawthorn. The block in the northeast corner of the site is the oldest, dating from the early 19<sup>th</sup> Century, with a generally poor ground flora that does include Giant Fescue (*Festuca gigantea*) and Giant Horsetail (*Equisetum telmateia*).

The site is known to support an assemblage of invertebrates believed to be of regional or national significance, including Brown-banded Carder Bee (*Bombus humilis*), Shrill Carder Bee (*Bombus sylvarum*), Red-shanked Carder Bee (*Bombus ruderarius*) and the fly *Dorycera gramineum* all of which are England BAP Priority species. The site supports at least 23 Nationally Scarce Species and the Red Data Book mining bee *Lasioglossum pauperatum*. The presence of the Nationally Scarce jewel beetle *Agrilus sinuatus* highlights the importance of Hawthorn scrub, as its larvae develop under the bark of branches of old specimens.

Adders Hill is known to support Adder, and Common Lizard and Slow Worms have been recorded in the southern meadow. All three species are likely to be present throughout the site.

## **England BAP Priority Habitats**

Lowland Meadows

Lowland Dry Acid Grassland

## **Selection Criteria**

HC9 Lowland Meadows

HC13 Heathland and Acid Grassland

SC16 Hotspots for Reptile Diversity

SC19 Important invertebrate Assemblages

## **Rationale**

Most of the site supports acid grassland, although the lower grasslands and particularly the southernmost field are more akin to the mesotrophic community specified in the Lowland Meadows England BAP Priority Habitat. Three species of reptile have been recently recorded and the diversity of invertebrates present on site, including a significant number that are Nationally Rare or Scarce, combined with the suitability of the habitat make the site of great significance.

## **Condition Statement**

The site is considered to be in flux due to the recent develop of the Olympic mountain bike track and plans for further recreational development that will affect the Site, which have

been granted planning consent. A significant amount of limestone has been imported onto an acidic site, which may affect its plant communities. Prior to these impacts the management of the site had not been favourable to its conservation interests.

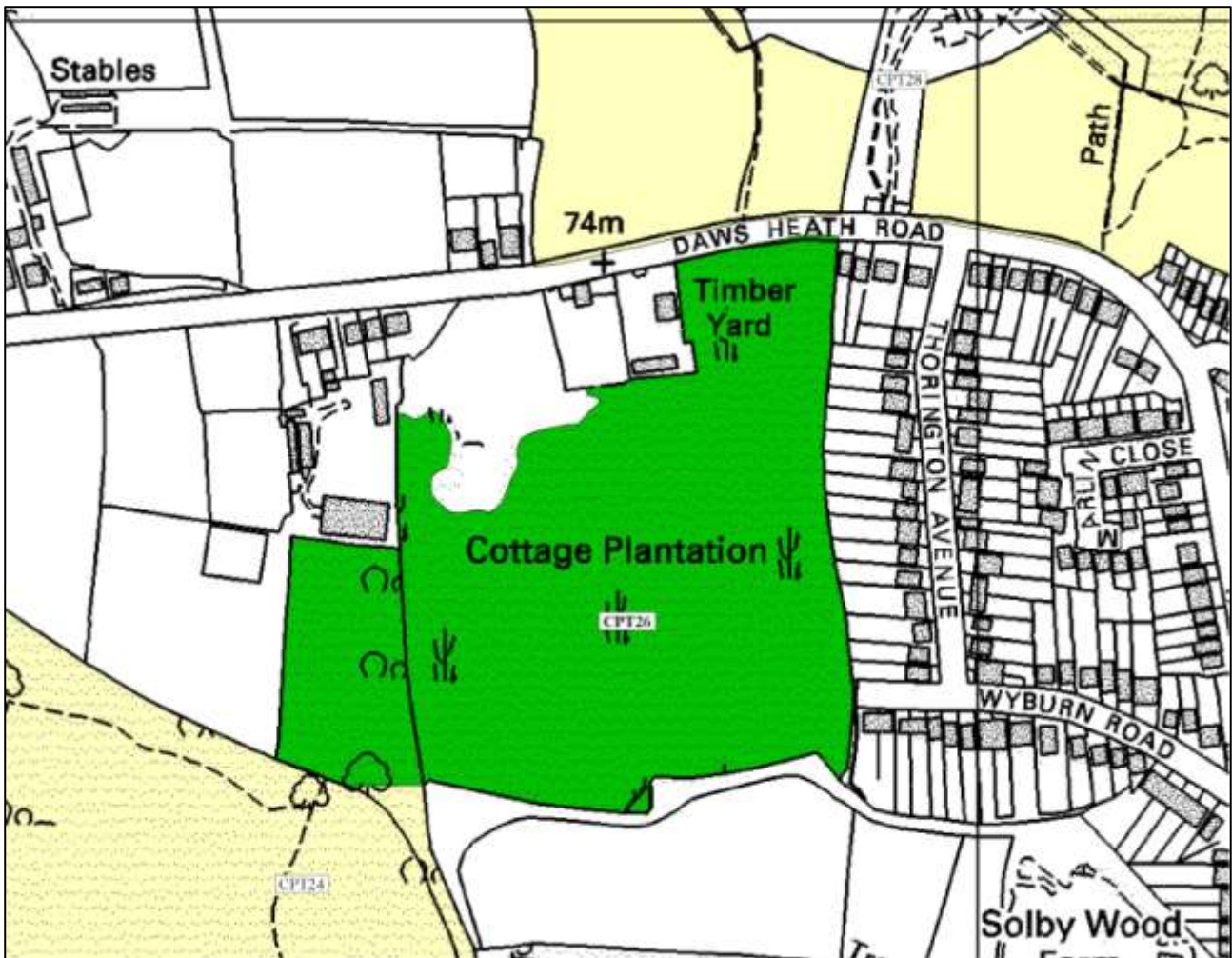
### **Management Issues**

In the forthcoming development of the site as a public recreational resource, there is an opportunity to develop a coherent management strategy for the Site that would allow its key habitats to be significantly enhanced and to interpret the site's importance to those that visit. Key aspects are establishing an appropriate grazing or mowing regime for the grasslands, protecting key landscape features and creating new bare ground habitats. Such a management strategy has been approved as part of the planning permission, but its contents should be reviewed to ensure that an accurate assessment of management requirements has been made.

### **Review Schedule**

**Site Selected:** 1992 (G12b)

**Reviewed:** 1994 (G20 including Hadleigh Castle), 2002 (CP25 including Hadleigh Castle), 2007 (CP25 including Hadleigh Castle, 2012 (CPT25)



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### **CPT26 Cottage Plantation and Rag Wood (6.8ha) TQ808886**

This Site is made up of two distinct woodlands that have been heavily modified during their history.

Cottage Plantation may have its origins in the ancient West Wood (CPT24), but at some stage it has been re-planted with Sweet Chestnut (*Castanea sativa*). The only Pedunculate Oaks (*Quercus robur*) remaining are close to the southern and eastern boundaries where there is also Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*), Hazel (*Corylus avellana*) and Wild Cherry (*Prunus avium*). The chestnut is a mixture of coppice and standards with Silver Birch (*Betula pendula*), Holly (*Ilex aquifolium*) and Rowan (*Sorbus aucuparia*). At the northern end of the site, adjacent to the timber yard, Beech (*Fagus sylvatica*) coppice and standards are included. The ground flora is generally dominated by Bramble (*Rubus fruticosus*), Bracken (*Pteridium aquilinum*) and Honeysuckle (*Lonicera periclymenum*), but also includes a number of ancient woodland indicators such as Hairy Wood-rush (*Luzula pilosa*), Wood Melick (*Melica uniflora*), Hairy-brome (*Bromopsis ramosus*), Black Currant (*Ribes nigrum*) and, scattered throughout, the Essex Red Data List species Common Cow-wheat (*Melampyrum pratense*).

Rag Wood is an area of old secondary coppiced Sessile Oak (*Quercus petraea*) woodland within which numerous small gravel pits have been dug. Common Cow-wheat is also present within a generally poor ground flora.

Cottage Plantation supports the England BAP Priority species Southern Wood Ant (*Formica rufa*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

### **Rationale**

Both woods represent the W10 community that is included within the England BAP Priority Habitat definition, although Cottage Plantation may turn out to be ancient.

### **Condition Statement**

Although still in favourable condition, neither wood appears to have been managed in recent years.

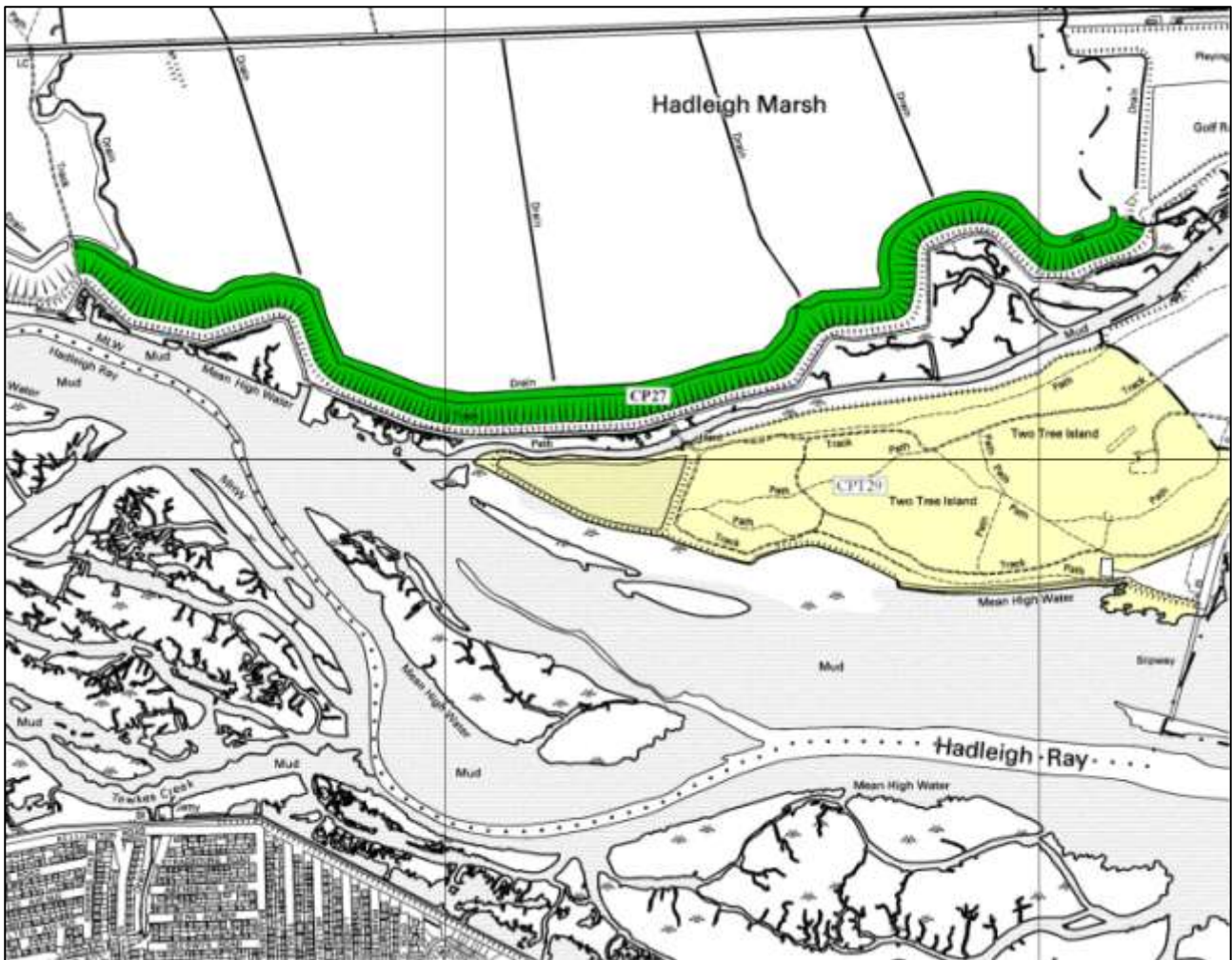
### **Management Issues**

The dumping of garden rubbish, which is a common problem in urban woodlands, may affect the woodland ground flora community of the wood. A continuation of coppice management is essential to preserve the quality of the habitat, as mature Sweet Chestnut casts a heavy shade.

### **Review Schedule**

**Site Selected:** 1992 (W10)

**Reviewed:** 1994 (W10), 2002 (CP26), 2007 (CP26), 2012 (CPT26)



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### **CPT27 Hadleigh Marsh Borrow Dyke and Sea Wall (11.5ha) TQ813851**

The grassland on this stretch of sea wall is diverse and probably old, although it has more recently become overly dominated by coarse grasses and weedy herbs. Large sections are dominated by Sea Couch (*Elytrigia atherica*), Common Couch (*Elytrigia repens*), Black Mustard (*Brassica nigra*) and Cow Parsley (*Anthriscus sylvestris*) with scattered scrub including Blackthorn (*Prunus spinosa*), Hawthorn (*Crataegus monogyna*), apple (*Malus* sp.), rose (*Rosa*) and Bramble (*Rubus fruticosus*).

Where the sward is more open, there is a good diversity of grasses, including Crested Dog's-tail (*Cynosurus cristatus*), Timothy (*Phleum pratense*), Red Fescue (*Festuca rubra*), Creeping Bent (*Agrostis stolonifera*) and Soft Brome (*Bromus hordeaceus*). Other noteworthy plant species include Knotted Hedge-parsley (*Torilis nodosa*), Grass Vetchling (*Lathyrus nissolia*), Narrow-leaved Bird's-foot-trefoil (*Lotus glaber*), Meadow Vetchling (*Lathyrus pratensis*) and Hop Trefoil (*Trifolium campestre*). The most diverse section is the folding adjacent to the borrow dyke where there is an abundance of Sea Clover (*Trifolium squamosum*) and some Divided Sedge (*Carex divisa*) in scattered patches, both of which are Nationally Scarce.

A significant proportion of the borrow dyke is dominated by stands of Common Reed (*Phragmites australis*), interspersed with open water and patches of Sea Club-rush (*Bolboschoenus maritimus*). The borrow dykes supports a population of Water Voles, a

significant number of Reed Warbler pairs, and several pairs of Reed Bunting. The Red List species Linnet also occurs and may breed.

The Site may support an interesting assemblage of invertebrates; the England BAP Priority Species Brown-banded Carder Bee (*Bombus humilis*) has been recorded.

### **England BAP Priority Habitats**

Reedbed

### **Selection Criteria**

HC11 Other Neutral Grassland

HC15 Reedbeds

### **Rationale**

The plant species present indicate a long history as grassland, although the community doesn't fit any England BAP habitat definition. It is typical of old sea walls around the Essex coast. The quantity of reed growing in the borrow dykes justifies the use of the criterion, even if it is dispersed over a considerable linear distance.

### **Condition Statement**

The condition of the Site has apparently improved since the last review, when it was demoted to a Potential LoWS.

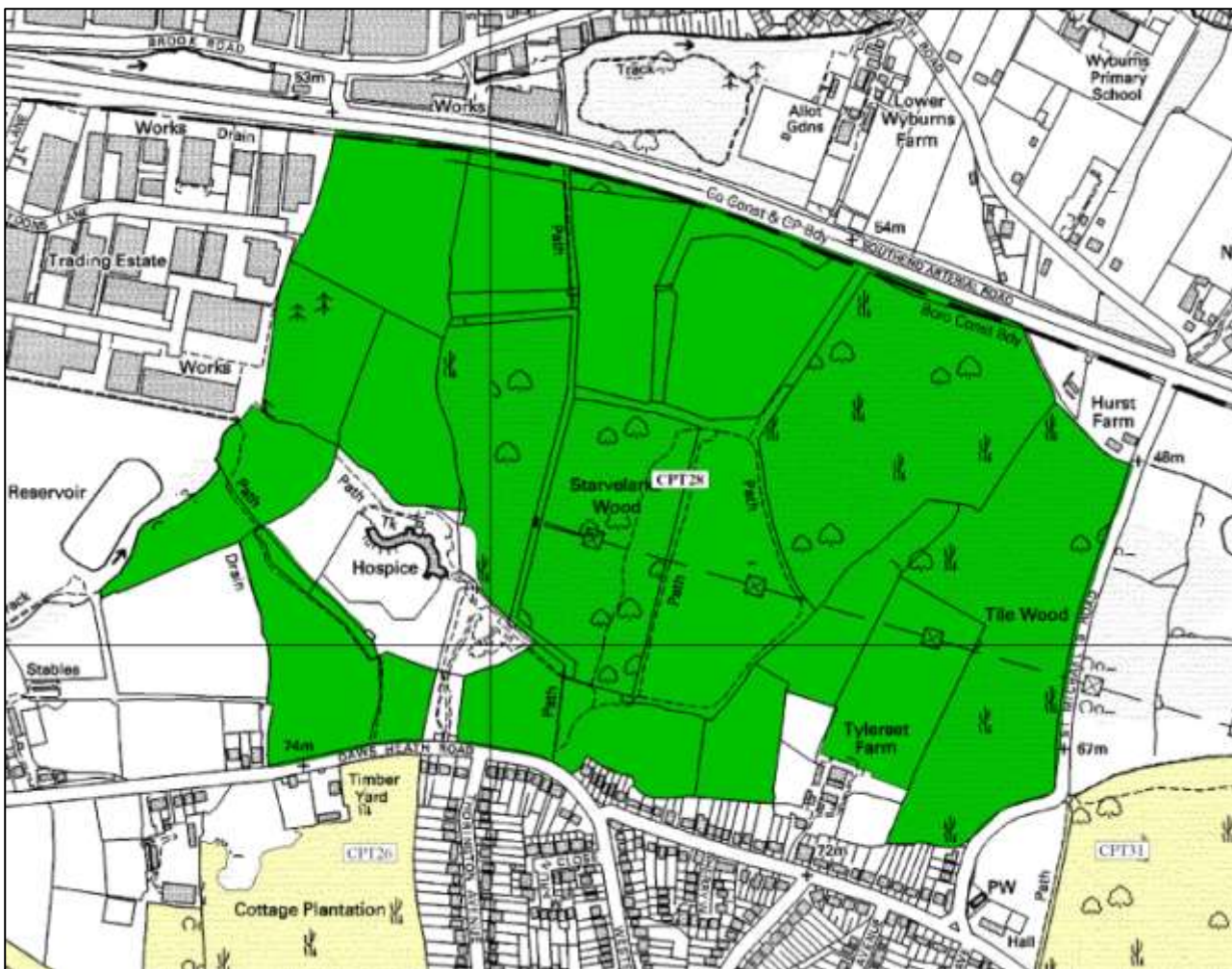
### **Management Issues**

The quality of the grassland habitat depends on the mowing regime, with a reduction of diversity inevitable if management pressure declines. At the same time the inappropriate timing of grass cutting could have a negative impact on some species and on invertebrate populations.

### **Review Schedule**

**Site Selected:** 1992 (C2)

**Reviewed:** 1994 (C2), 2002 (CP27), 2007 (demoted to PLoWS6), 2012 (CPT27)



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### **CPT28 Little Haven/Tile Wood Complex (55.4ha) TQ812892**

This large nature reserve comprises a mosaic of ancient woodlands, hedgerows, hay meadows and rough grassland. The majority comprises a nature reserve managed by Essex Wildlife Trust. The key sections are described below.

Starvelarks Wood is documented as an old plantation, although it is probably at least in part derived from an ancient woodland site. The canopy is dominated by Sweet Chestnut (*Castanea sativa*), with lesser amounts of Ash (*Fraxinus excelsior*), and Alder (*Alnus glutinosa*) as a small stand of Plateau Alderwood, a scarce woodland type. The ground flora of the wood includes a good number of ancient woodland species including Midland Hawthorn (*Crataegus laevigata*), Bluebell (*Hyacinthoides non-scripta*), Wood Melick (*Melica uniflora*), Great Wood-rush (*Luzula sylvatica*), Wild Service Tree (*Sorbus torminalis*), Common Cow-wheat (*Melampyrum pratense*), Wood Spurge (*Euphorbia amygdaloides*), Wood Forget-me-not (*Myosotis sylvatica*), Wood Meadow-grass (*Poa nemoralis*) and Yellow Archangel (*Galeobdolon luteum*). The eastern section is crossed by overhead cables, resulting in an area of permanently early stage coppice that supports a flora akin to lowland heath, including Heather (*Calluna vulgaris*), Heath Speedwell (*Veronica officinalis*) and the ERDL species Heath Milkwort (*Polygala serpyllifolia*).

Although not clearly documented as an ancient wood, Tile Wood West has nonetheless been wooded for some time, being apparently a plantation on the site of the ancient

Tilehurst Wood. This wood contains the largest area of Plateau Alderwood (a scarce woodland type) in south Essex, whilst the remainder of the canopy comprises Ash over Hawthorn (*Crataegus monogyna*), with scattered Sweet Chestnut, Sessile Oak (*Quercus petraea*) and Hazel (*Corylus avellana*). The flora is rich in ancient woodland species, including Pendulous Sedge (*Carex pendula*), Remote Sedge (*Carex remota*), Midland Hawthorn (*Crataegus laevigata*), Wood Anemone (*Anemone nemorosa*), Bluebell, Wood Melick, Three-nerved Sandwort (*Moehringia trinervis*) and Wood Meadow-grass. Other characteristic species include Creeping Soft-grass (*Holcus mollis*) and Bramble (*Rubus fruticosus*).

Tile Wood East is one of the earliest recorded woods in southeast Essex, being mentioned in Anglo-Saxon times, although the ground flora in parts is very poor. The tree species are predominately Sessile Oak, Hornbeam (*Carpinus betulus*) and Sweet Chestnut, with some Wild Service. The ground flora in the northern half of the wood includes a number of ancient woodland plants, including Wood Anemone, Wood Melick, Wood Millet (*Milium effusum*), Common Cow-wheat, Bluebell and Hairy wood-rush (*Luzula pilosa*). The wood is crossed by overhead cables, resulting in an area of permanently early stage coppice.

The site supports a thriving population of the England BAP Priority butterfly Heath Fritillary (*Mellicta athalia*), which extends east along the pylon rides to Pound Wood (CPT32). The population of the England BAP Priority Species Southern Wood Ant (*Formica rufa*) in these woodlands is also notable.

Between and around the woods are a series of meadows that are derived from agriculturally improved swards, although the flora is gradually diversifying under less intensive management and some re-seeding. These meadows typically support a low diversity of herbaceous species. These generally small meadows are divided up by good hedgerows and woodland strips, preserving a landscape that has changed little since the 19<sup>th</sup> Century.

The communities in some of the western meadows indicate older grasslands and an acidic influence, with swards featuring Red Fescue (*Festuca rubra*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Common Bent (*Agrostis capillaris*), Common Sorrel (*Rumex acetosa*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Common Knapweed (*Centaurea nigra* agg.), Trailing St John's-wort (*Hypericum humifusum*) and Sheep's Sorrel (*Rumex acetosella*). The ERDL species Velvet Bent (*Agrostis canina*) and Brown Bent (*Agrostis vinealis*) have been recorded in these fields. The horse-grazed pastures to the north of Tylersset Farm (outside of the nature reserve) are similar in character.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

Lowland Dry Acid Grassland

### **Selection Criteria**

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

HC13 Heathland and Acid Grassland

HC11 Other Neutral Grasslands

SC18 England BAP Priority Invertebrates

### **Rationale**

Tile Wood East is well-documented as an ancient wood, but evidence would suggest that Starvelarks and Tile Wood West are not ancient. Some of the meadows, including those at the western end and possibly those north of Tylerset Farm, appear to be older and best satisfy the Lowland Dry Acid Grassland England BAP Priority Habitat definition, which would also apply to the habitat in the pylon rides. The other grasslands are known not to be old, or to correspond to an acid grassland or MG5 community type, but provide a valuable conservation resource in the context of the overall site and so are included under the Other Neutral Grasslands criterion. The England BAP Priority Invertebrates criterion is used because of the important populations of Heath Fritillary and Southern Wood Ant present on the Site.

### **Condition Statement**

The woodlands are in good condition through an active coppice programme. The grasslands are more variable, with a transition from hay cutting to grazing under way in some, but not yet fully established.

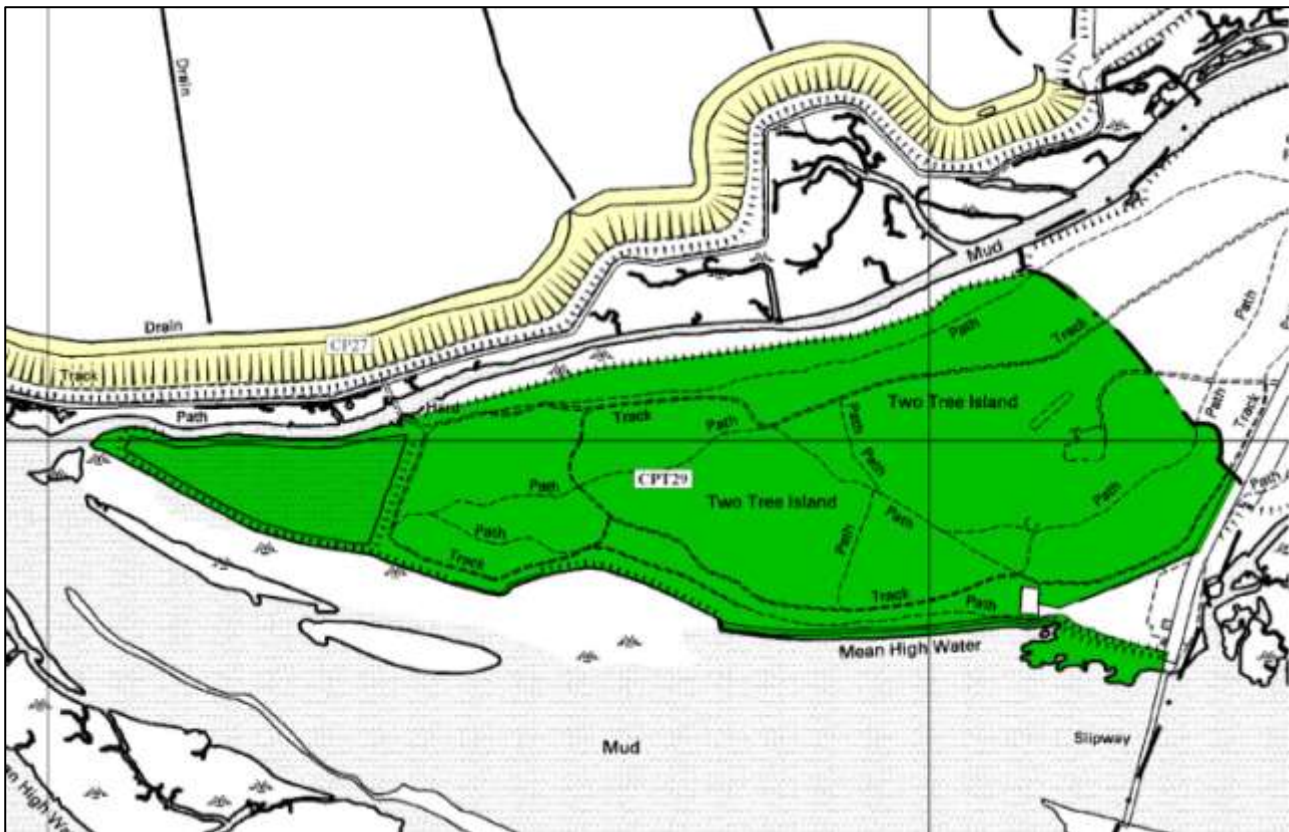
### **Management Issues**

Grassland management requires fine-tuning and there is evidence that the flora in the southern half of Tile Wood East has declined, which may suggest that coppicing should be prioritised there.

### **Review Schedule**

**Site Selected:** 1992 (in part; W11, W12)

**Reviewed:** 1994 (in part; G19, W11, W12, W22), 2002 (CP28), 2007 (CP28), 2012 (CPT28)



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### **CPT29 Two Tree Island West (30.4ha) TQ817849**

This Site includes all of the island that is within Castle Point Borough (excluding car parks, etc.), with the remainder of the western half identified as LoWS 'So1 Two Tree Island West' in Southend Borough and the eastern half lying within the Benfleet and Southend Marshes SSSI.

The majority of the Site comprises rough grassland, scrub and young trees on former land fill. The grassland is primarily dominated by coarse species; particularly False Oat-grass (*Arrhenatherum elatius*), but with Tall Fescue (*Schedonorus arundinacea*) and Sea Couch (*Elytrigia atherica*) dominant in some areas. Within this are more open swards in which grasses such as Red Fescue (*Festuca rubra*), Soft Brome (*Bromus hordeaceus*), and Rough Meadow-grass (*Poa trivialis*) are more prominent and this community supports a large population of the ERDL species Pyramidal Orchid (*Anacamptis pyramidalis*). On path edges and sparser substrates, Fern Grass (*Catapodium rigidum*), Red Bartsia (*Odontites vernus*), Narrow-leaved Bird's-foot-trefoil (*Lotus tenuis*) and Common Bird's-foot-trefoil are more abundant. Along the southern edge of the island is found a more diverse community including Crested Dog's-tail (*Cynosurus cristatus*), with Lady's Bedstraw (*Galium verum*), Common Knapweed (*Centaurea nigra*), the Nationally Scarce Yellow Vetchling (*Lathyrus aphaca*), and the ERDL species Yellow-rattle (*Rhinanthus minor*).

Good breeding populations of birds occur on the site including Red List species such as Skylark, Grasshopper Warbler, Linnet, and Cuckoo as well as Stonechat, which is a scarce breeding bird in Essex. The scattered scrub provides appropriate habitat to support an extremely high density of Common Whitethroat. Hawthorn (*Crataegus monogyna*) is the most frequent component with apple (*Malus* sp.), Blackthorn (*Prunus*

*spinosa*), Bramble (*Rubus fruticosus*) and scattered trees of Pedunculate Oak (*Quercus robur*), Ashe (*Fraxinus excelsior*), willows (*Salix* spp.) and poplars (*Populus* sp.).

The lagoon at the western end of the island shows some of the characteristics associated with the definition of the England BAP Priority Habitat Saline Lagoons. It supports a modest diversity of invertebrates including the isopod *Idotea chelipes*, and the molluscs *Ventrosia ventrosa* and *Cerastoderma glaucum*, all of which are considered to be saline lagoon specialists, and five further species that are often associated with the habitat. The lagoon also supports breeding Common Terns, Black-headed Gulls, Redshank, Oystercatcher and Avocet, the last of which receives special protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). The lagoon is also used as a high tide roost by waders from the adjoining inter-tidal habitats, particularly during the autumn and winter.

The Site supports populations of Common Lizard, Adder and Slow Worm. Amongst the diverse invertebrate assemblage found on the Site are the England BAP Priority species *Dorycera gramineum*, and Brown-banded and Shril Carder Bees (*Bombus humilis* and *sylvorum*). In addition there are records of 12 Red Data Book species and 43 Nationally Scarce species giving an assemblage that is of national significance. The assemblage includes spiders such as *Zilla diodia* and *Bianor auROCinctus*, beetles such as *Podagricafuscipes*, *Lixus scabricollis*, *Clanoptilus strangulatus* and *Olibrus flavicornis*, flies such as *Eurina lurida* and *Cistogaster globosa*, bugs such as *Lygus pratensis*, and bees and wasps such as *Andrena alfkenella* and *Lasioglossum pauperatum*,

## **England BAP Priority Habitats**

Saline Lagoons

Open Mosaic Habitats on Previously Developed Land

## **Selection Criteria**

HC24 Saline Lagoons and Borrow Dyke Habitat

HC27 Post-industrial Sites

SC1 Vascular Plants

SC5 Notable Bird Species

SC16 Hotspots for Reptile Diversity

SC18 England BAP Priority Invertebrates

SC19 Important Invertebrate Assemblages

## **Rationale**

Species records show that the lagoon supports species considered to be Saline Lagoon specialists and the island's history as a landfill site, combined with the habitats, plant and invertebrate species present, justify the habitat selection criteria. The species criteria used relate to the presence of populations of the following species: Pyramidal Orchid (SC1), Avocet (SC5), Common Lizard, Grass Snake and Slow Worm (SC16), *Bombus humilis*, *Bombus sylvorum* and *Dorycera gramineum* (SC18). Other species such as Skylark, Linnet and Grasshopper Warbler could be cited, but no records exist to demonstrate population levels over a five-year period. The invertebrate assemblage criterion reflects the national significance of the species thus far recorded.

## **Condition Statement**

The Site is in favourable condition.

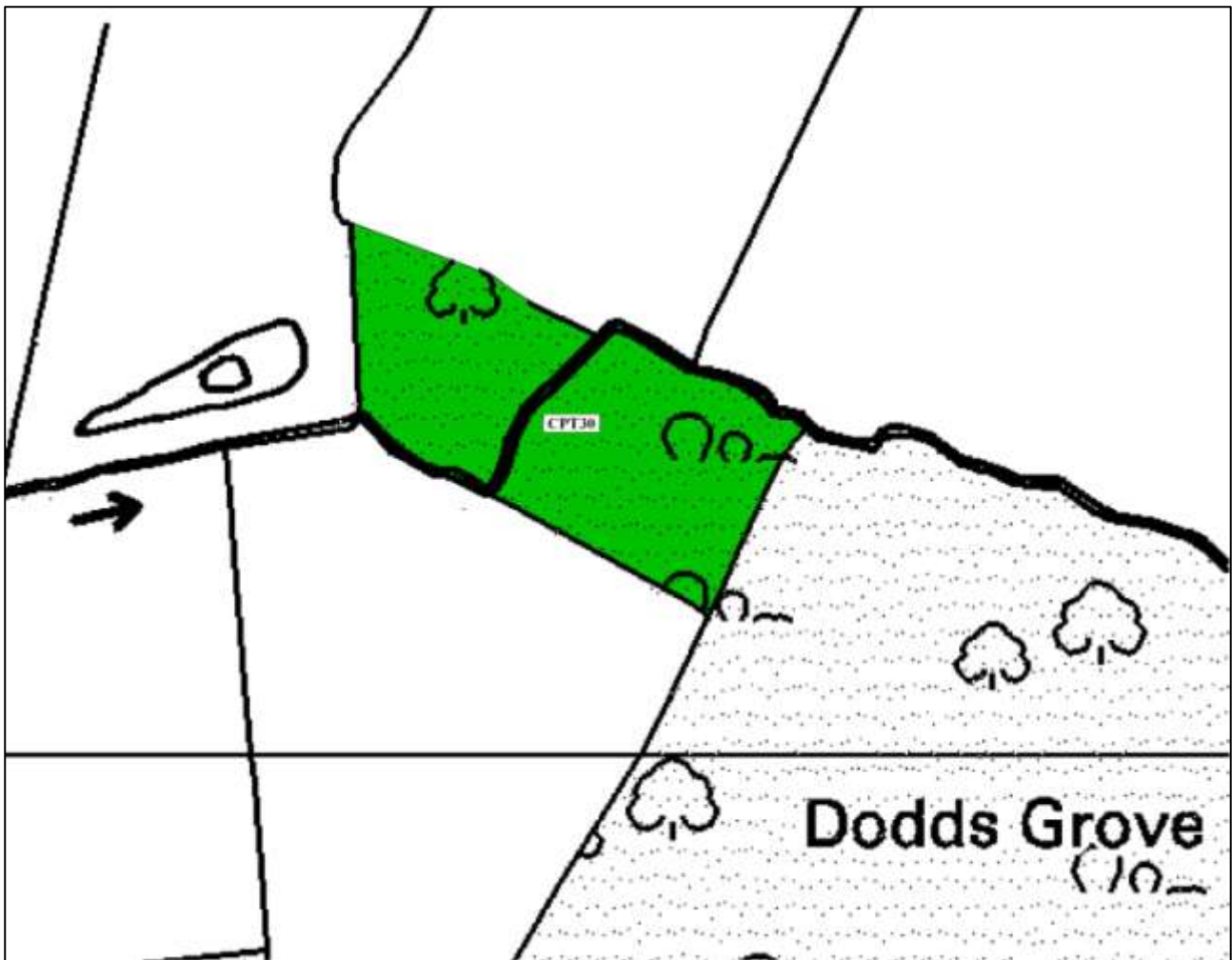
**Management Issues**

Human pressure, especially in the form of dog waste, is a continuing concern, although most visitors remain on the main paths. Fires are a regular occurrence and, although beneficial on a small scale, threaten the integrity of the habitat mosaic and can cause damage to species populations.

**Review Schedule**

**Site Selected:** 1992 (C4)

**Reviewed:** 1994 (C4), 2002 (CP29), 2007 (CP29), 2012 (CPT29)



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### **CPT30 Coxall Wood (0.8ha) TQ816881**

This is the last remaining fragment of Coxall Wood, most of which had been lost by the start of the 19<sup>th</sup> Century. It lies adjacent to the Great Wood and Dodd's Grove Hadleigh SSSI and forms a small ecological extension to that habitat. It is crossed by Prittle Brook

The canopy consists of Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*) and Hornbeam (*Carpinus betulus*) with an understorey of Holly (*Ilex aquifolium*), Hawthorn (*Crataegus monogyna*) and Hazel (*Corylus avellana*). The ground flora is relatively poor with Wood Melick (*Melica uniflora*), Bramble (*Rubus fruticosus*) and Ivy (*Hedera helix*) abundant with Creeping Soft-grass (*Holcus mollis*) in places. A number of ancient woodland indicators remain including Wood Millet (*Milium effusum*), Wood Meadow-grass (*Poa nemoralis*), Wood Sedge (*Carex sylvatica*), Remote Sedge (*Carex remota*) and Giant Fescue (*Festuca gigantea*).

The England BAP Priority Species Southern Wood Ant (*Formica rufa*) is present, but not abundant.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

## HC1 Ancient Woodland Sites

### **Rationale**

The site is a documented fragment of ancient woodland. Although present, the Southern Wood Ant population is insufficient to justify the England BAP invertebrate criterion.

### **Condition Statement**

The Site is in favourable condition.

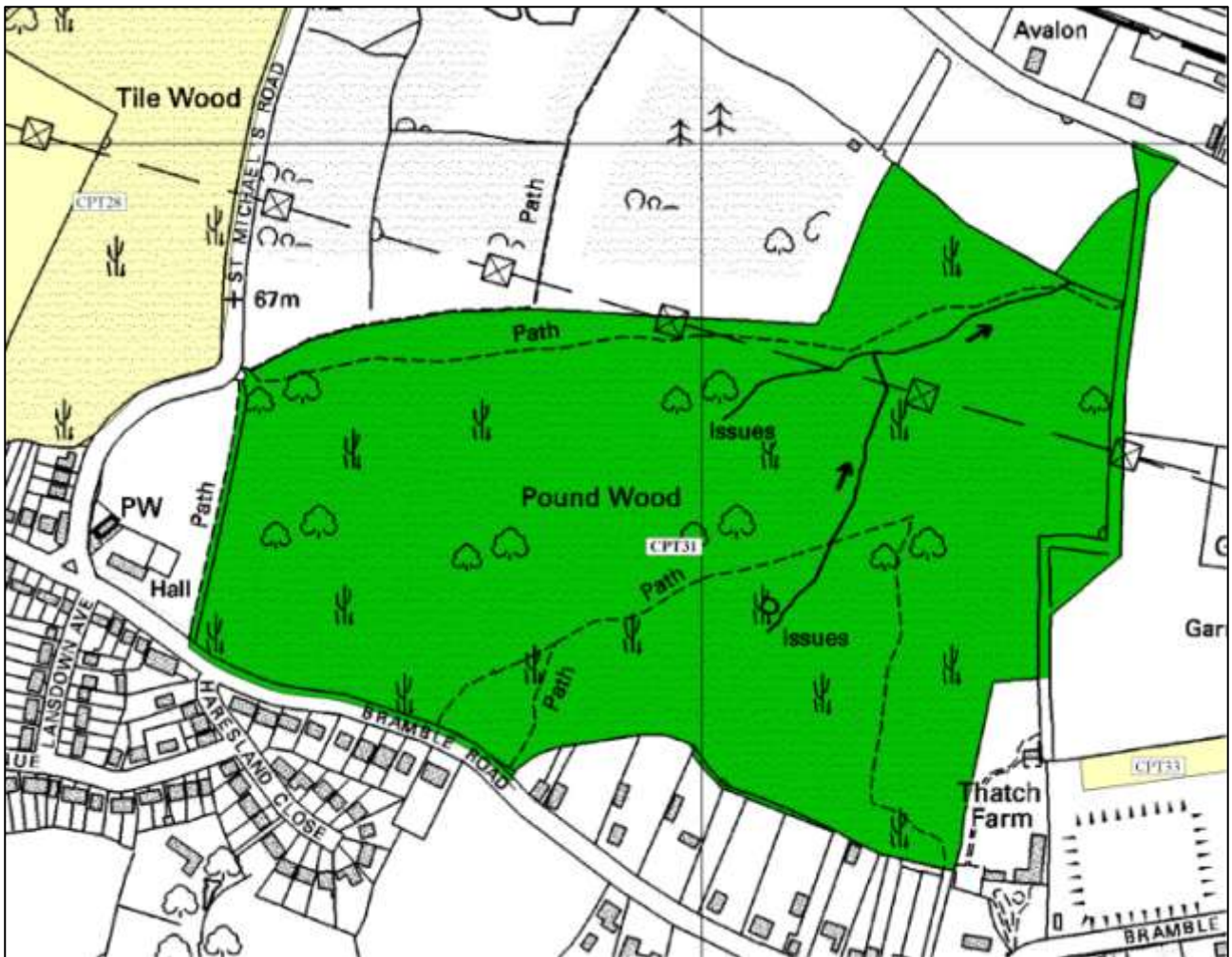
### **Management Issues**

Some management may be needed in the future in order to maintain a favourable woodland structure.

### **Review Schedule**

**Site Selected:** 1994 (W23)

**Reviewed:** 2002 (CP30), 2007 (CP30).



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### **CPT31 Pound Wood (23.4ha) TQ820887**

This site largely corresponds to an Essex Wildlife Trust nature reserve, consisting of ancient woodland with a small area of old secondary woodland in the southwest corner and an even smaller more recent woodland extension in the northeast corner. The eastern edge of the Site is marked by an abandoned lane, which provides a good woodland edge habitat, with the Garrold's Meadow SSSI beyond.

The canopy of the wood is predominantly made up of Sessile and Pedunculate Oak (*Quercus petraea* and *Q. robur*) with Sweet Chestnut (*Castanea sativa*) and Hornbeam (*Carpinus betulus*) coppice and some Wild Service-tree (*Sorbus torminalis*). The understorey consists of Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*), Midland Hawthorn (*Crataegus laevigata*), Rowan (*Sorbus aucuparia*) and Silver Birch (*Betula pendula*).

The ground flora includes a number of ancient woodland indicators, including Bluebell (*Hyacinthoides non-scripta*), Common Cow-wheat (*Melampyrum pratense*), Remote Sedge (*Carex remota*), Wood Anemone (*Anemone nemorosa*), Wood Millet (*Milium effusum*), Yellow Archangel (*Lamium galeobdolon*), Wood Sorrel (*Oxalis acetosella*), Hairy Wood-rush (*Luzula pilosa*), Wood Spurge (*Euphorbia amygdaloides*), Yellow Pimpernel (*Lysimachia nemorum*), Wood Meadow-grass (*Poa nemoralis*) and an

abundance of Wood Melick (*Melica uniflora*). Honeysuckle (*Lonicera periclymenum*) and Greater Stitchwort (*Stellaria holostea*) are also prominent.

The site is notable for strong populations of the England BAP Priority Species Southern Wood Ant (*Formica rufa*) and Heath Fritillary (*Mellicta athalia*), and for its small population of Dormouse.

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

SC7 Dormouse

SC18 England BAP Priority Invertebrates

### **Rationale**

Most of the Site is well documented as ancient woodland, but it includes two sections that are more recent and that extend its ecological value. Populations of Dormouse, Southern Wood Ant and Heath Fritillary are all present.

### **Condition Statement**

The wood is actively managed and in good overall condition.

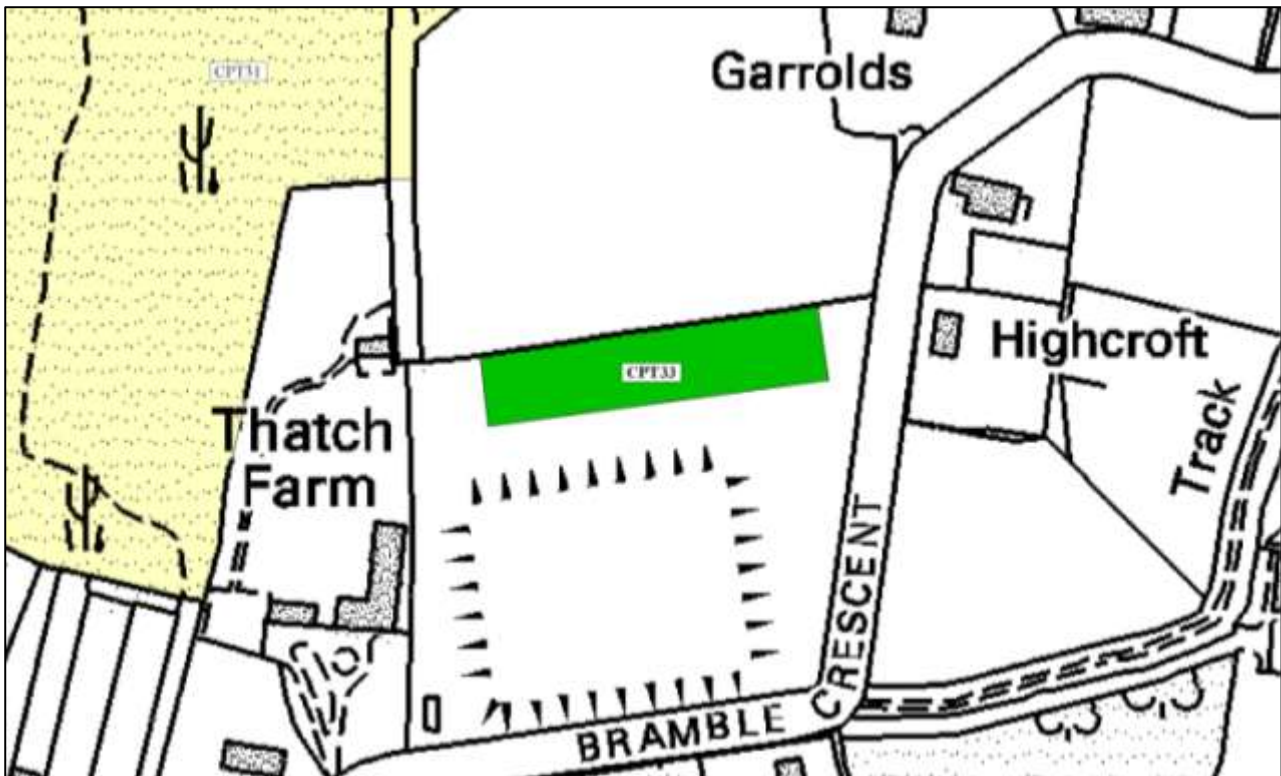
### **Management Issues**

Cherry Laurel (*Prunus laurocerasus*) is widespread in the southern half of the wood and should be removed to prevent its continued spread through the understorey.

### **Review Schedule**

**Site Selected:** 1992 (W14)

**Reviewed:** 1994 (W14 and W25), 2002 (CP31), 2007 (CP31), 2012 (CPT31)



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### **CPT33 Oakwood Reservoir (0.3ha) TQ823885**

This much-reduced site now constitutes a strip of unimproved acid grassland immediately to the south of the Garrold's Meadow SSSI. The sward comprises abundant Common Bent (*Agrostis capillaris*), Sweet Vernal-grass (*Anthoxanthum odoratum*) and some Red Fescue (*Festuca rubra*), with other species including much Common Knapweed (*Centaurea nigra* agg.), Common Cat's-ear (*Hypochaeris radicata*), Mouse-ear-hawkweed (*Pilosella officinalis*), Heath Grass (*Danthonia decumbens*) and, most notably, Common Milkwort (*Polygala vulgaris*), an ERDL species.

### **England BAP Priority Habitats**

Lowland Dry Acid Grassland

### **Selection Criteria**

HC13 Heathland and Acid Grassland

### **Rationale**

The grass community is a clear match for unimproved acid grassland.

### **Condition Statement**

The Site is currently in favourable condition and stable.

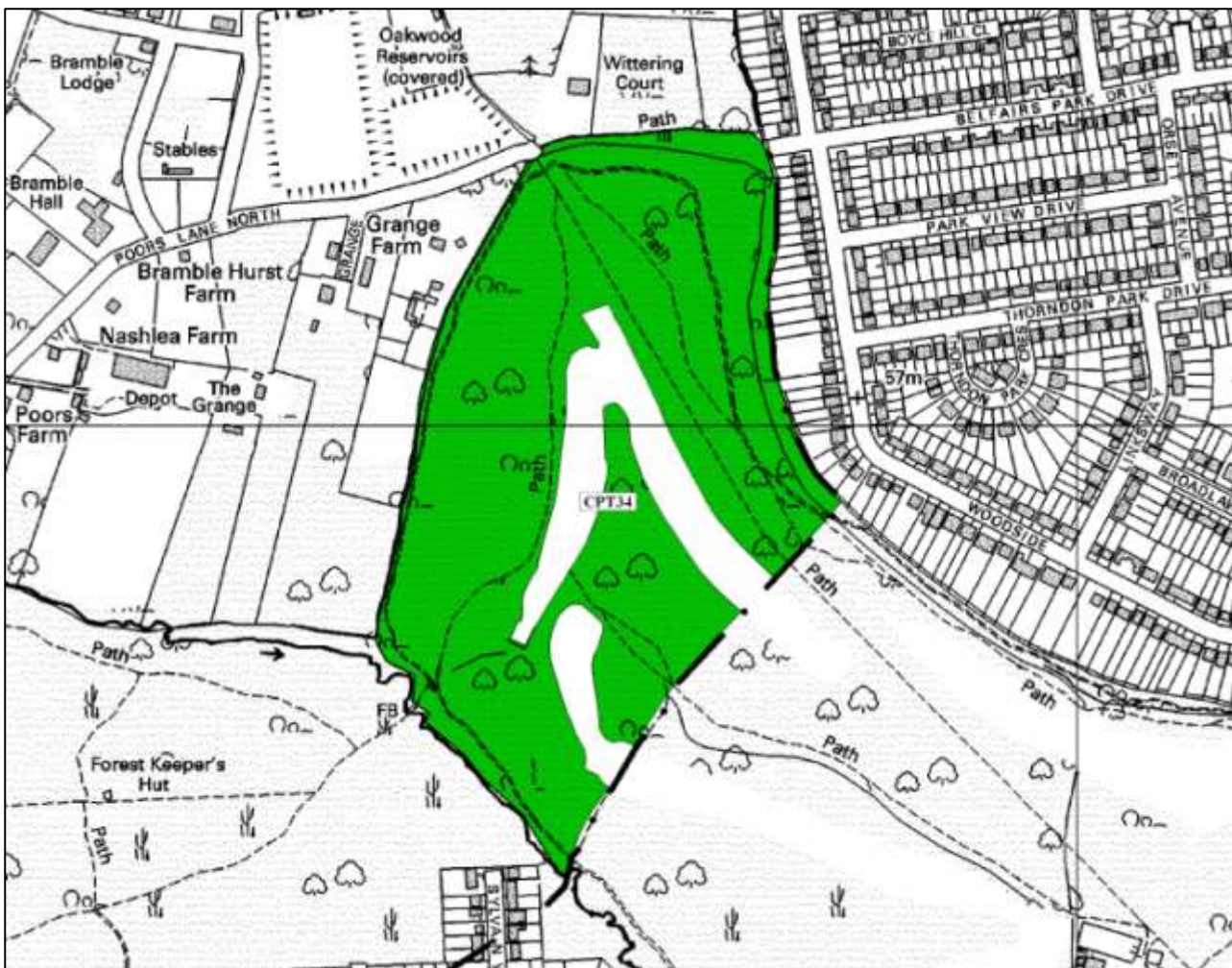
### **Management Issues**

The correct amount and type of management will be needed to ensure that the Site remains in a favourable condition. Improved management of the remainder of the reservoir compound could lead to an extended area of habitat of LoWS quality.

### **Review Schedule**

**Site Selected:** 1992 (G15)

**Reviewed:** 1994 (G15), 2002 (CP33), 2007 (CP33), 2012 (CPT33)



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### **CPT34 Belfairs Park Wood (15.4ha) TQ825879**

This wood is made up of two ancient woods, Great Birches Wood and, in the southern corner, Goldingsley Grove. Just before the Second World War, three golf holes were cleared through when it became part of Belfairs Park.

The canopy is dominated by Pedunculate and Sessile Oak (*Quercus robur* and *Q. petraea*) and Hornbeam (*Carpinus betulus*), with Wild Service-tree (*Sorbus torminalis*), birch (*Betula* sp.) and Sweet Chestnut *Castanea sativa*). The understorey includes Field Maple (*Acer campestre*), Hazel (*Corylus avellana*), Holly (*Ilex aquifolium*), Rowan (*Sorbus aucuparia*), Hawthorn (*Crataegus monogyna*) and Midland Hawthorn (*C. laevigata*) with many young, as-yet uncoppiced Hornbeams. The ground flora is impoverished in places because of heavy trampling pressure, but includes the following ancient woodland indicator species: Remote Sedge (*Carex remota*), Bluebell (*Hyacinthoides non-scripta*), Wood Melick (*Melica uniflora*), Common Cow-wheat (*Melampyrum pratense*), Wood Spurge (*Euphorbia amygdaloides*), Wood Millet (*Milium effusum*), Primrose (*Primula vulgaris*), Bush Vetch (*Vicia sepium*), Wood Sedge (*Carex sylvatica*), Wood Anemone (*Anemone nemorosa*) and Wood Meadow-grass (*Poa nemoralis*).

A few more open, grassier areas have a flora indicative of the light, acid sandy soils, typified by Wavy Hair-grass (*Deschampsia cespitosa*), Red Fescue (*Festuca rubra*) and Bracken (*Pteridium aquilinum*).

### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites

### **Rationale**

The Site's ancient origins are well-documented.

### **Condition Statement**

There has been some management in recent years, but much of the Site remains in poor condition with little ground flora due to shading and trampling.

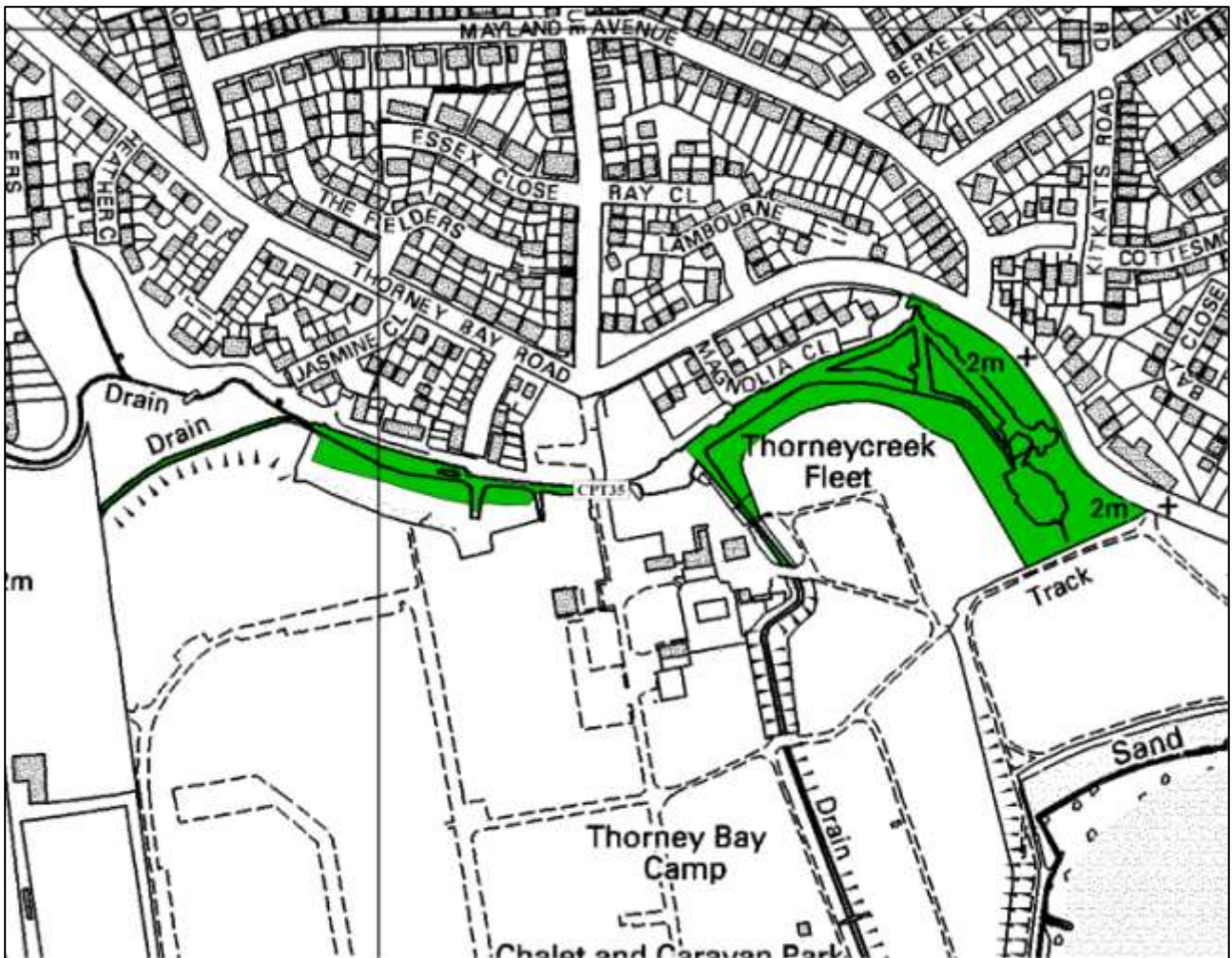
### **Management Issues**

Restricting the width of the paths, more coppicing and possibly some measures to reduce compaction would all help to improve the condition of the wood.

### **Review Schedule**

**Site Selected:** 1992 (W15)

**Reviewed:** 1994 (W15), 2002 (CP34), 2007 (CP34), 2012 (CPT34)



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### **CPT35 Thorneycreek Fleet (2.1ha) TQ792827**

This Site largely consists of a wet reedbed, with associated marginal grassland and scrub. It is derived from one of the original main fleets draining Canvey Island prior to its reclamation.

As is typical of the habitat type, there are few other plant species within the reedbed, a small quantity of Great Willowherb (*Epilobium hirsutum*) occupying some of the drier margins. Between the eastern edge of the fleet and Thorney Bay Road is an area of essentially unimproved rough grassland that supports a reasonable diversity of herbaceous species, despite being largely dominated by False Oat-grass (*Arrhenatherum elatius*). More interesting species include Meadow Vetchling (*Lathyrus pratensis*), Grass Vetchling (*Lathyrus nissolia*), Common Knapweed (*Centaurea nigra*), Oxeye Daisy (*Leucanthemum vulgare*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Agrimony (*Agrimonia eupatoria*).

Blackthorn (*Prunus spinosa*) and Bullace (*Prunus domestica*) form dense thickets and other locally dominant species include Common Nettle (*Urtica dioica*), Greek Dock (*Rumex cristatus*), Goat's-rue (*Galega officinalis*) and Hedge Bedstraw (*Galium album*).

The grassland supports Common Lizard and Reed Warblers breed within the reedbed.

## **England BAP Priority Habitats**

Reedbed

### **Selection Criteria**

HC15 Reedbeds

### **Rationale**

The habitat present is a good match for the England BAP habitat definition.

### **Condition Statement**

The reedbed is in good condition, but the grassland is deteriorating through the dominance of coarse grasses and invasion by non-native species.

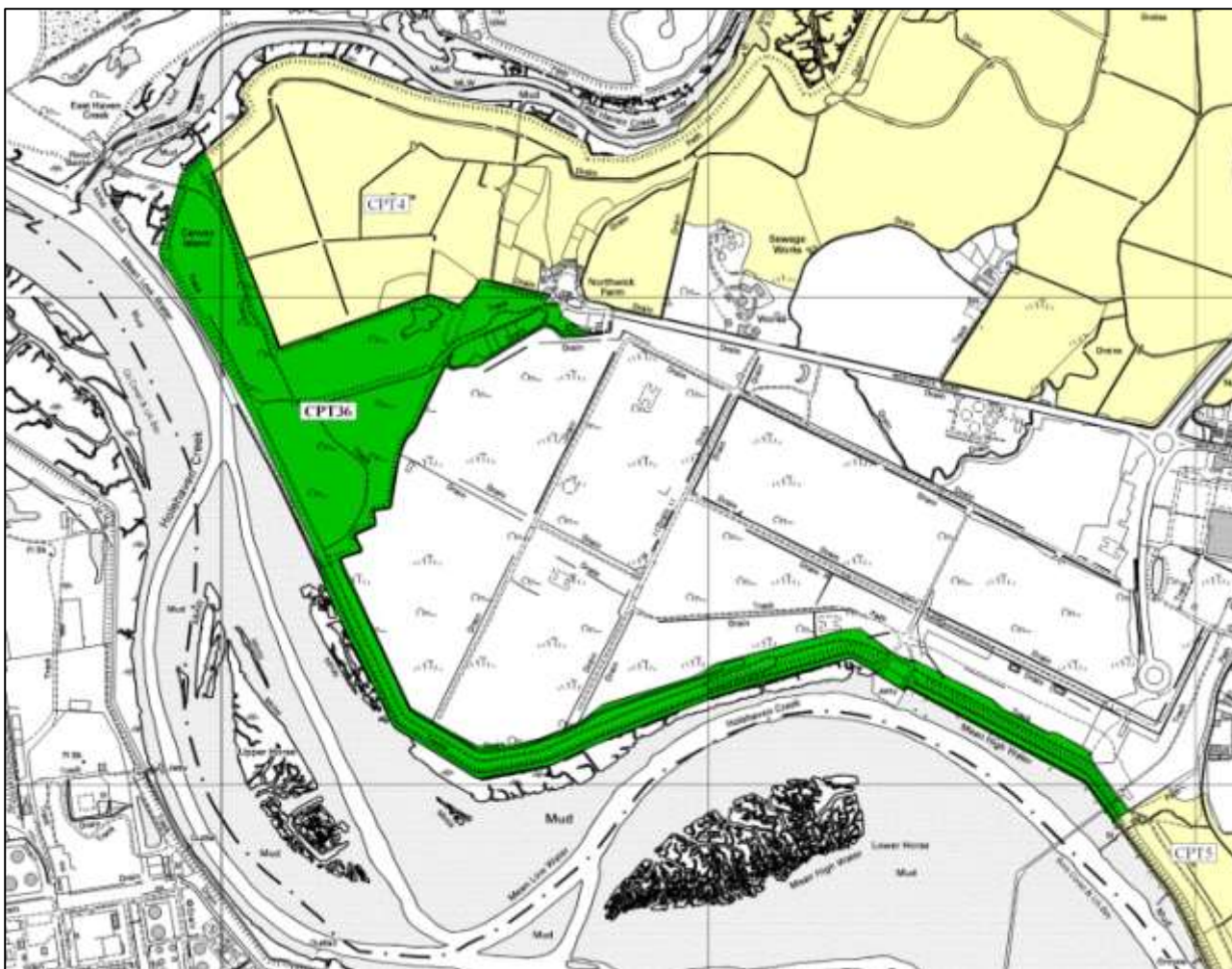
### **Management Issues**

Some management of the grass would help to maintain its diversity, but this would have to be sensitive to the presence of reptiles. The water level is the key to the continued well-being of the reedbed. Part of the fleet has been domesticated at the entrance to the caravan park and this should be discouraged if possible.

### **Review Schedule**

**Site Selected:** 2007 (CP35)

**Reviewed:** 2012 (CPT35)



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### **CPT36 Northwick Farm and Sea Wall (33.5ha) TQ**

This Site is made up of a former landfill site at Northwick Farm and the adjacent sea wall, which runs alongside the Canvey Wick SSSI. It forms part of a complex of important conservation sites covering most of West Canvey, with links to others in Basildon District and Thurrock.

The topography of the former landfill site is complex, with raised banks and plateaus interspersed with hollows and wet or damp depressions. The vegetation is predominantly made up of scrub and tall ruderal communities, with a small extent of more open sward adjacent to paths and tracks, or where the substrate is poor. The scrub includes Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Elder (*Sambucus nigra*) and Bramble (*Rubus fruticosus* agg.). Prominent tall ruderal species include Hemlock (*Conium maculatum*), Black Mustard (*Brassica nigra*), Common Nettle (*Urtica dioica*) and Teasel (*Dipsacus fullonum*) with Common Mallow (*Malva sylvestris*). The ERDL species Vervain (*Verbena officinalis*) is present in some quantity. The England BAP Priority Species Brown-banded and Shril Carder Bees (*Bombus humilis* and *B. sylvarum*) are present on the site along with the Red Data Book ground beetle *Scybalicus oblongiusculus*.

In the northeast corner of the Site, a large depression contains a permanently wet, saline habitat that supports a stand of Sea Club-rush (*Bolboschoenus maritimus*). This has been

found to support a range of rare and scarce invertebrates including the Red Data Book horseflies *Hybomitra expollicata*, *Haematopota bigotii* and *grandis*, and the England BAP Priority Species *Anisodactylus poeciloides*.

The eastern boundary of the site is formed from a ditch system with fringes of Common Reed (*Phragmites australis*).

The sea wall extending south and east from the landfill site is largely dominated by Sea Couch (*Elytrigia atherica*), but the sward character varies throughout and a good diversity of herbaceous species is present including Grass Vetchling (*Lathyrus nissolia*) and Tufted Vetch (*Vicia cracca*). The Nationally Scarce Divided Sedge (*Carex divisa*) occurs in scattered patches and the borrow dyke along the western half of the sea wall is dominated by Common Reed.

### **England BAP Priority Habitats**

Reedbed

Open Mosaic Habitats on Previously Developed Land

### **Selection Criteria**

HC15 Reedbeds

HC27 Post-industrial Sites

SC18 England BAP Priority Invertebrates

SC19 Important Invertebrate Assemblages

### **Rationale**

The history of the site and the habitats it supports, together with the significance of the invertebrates so far recorded, qualify this Site under the Post-industrial Sites criterion. The borrow dyke and ditches support enough Common Reed to justify the reedbed criterion. The England BAP invertebrate criterion is used because of the presence of Brown-banded and Shril Carder Bees, and *Anisodactylus poeciloides*. The site provides a valuable extension to the adjacent SSSI.

### **Condition Statement**

The condition of the former landfill area is declining through natural succession and the sea wall's management does not appear to be favourable to its condition.

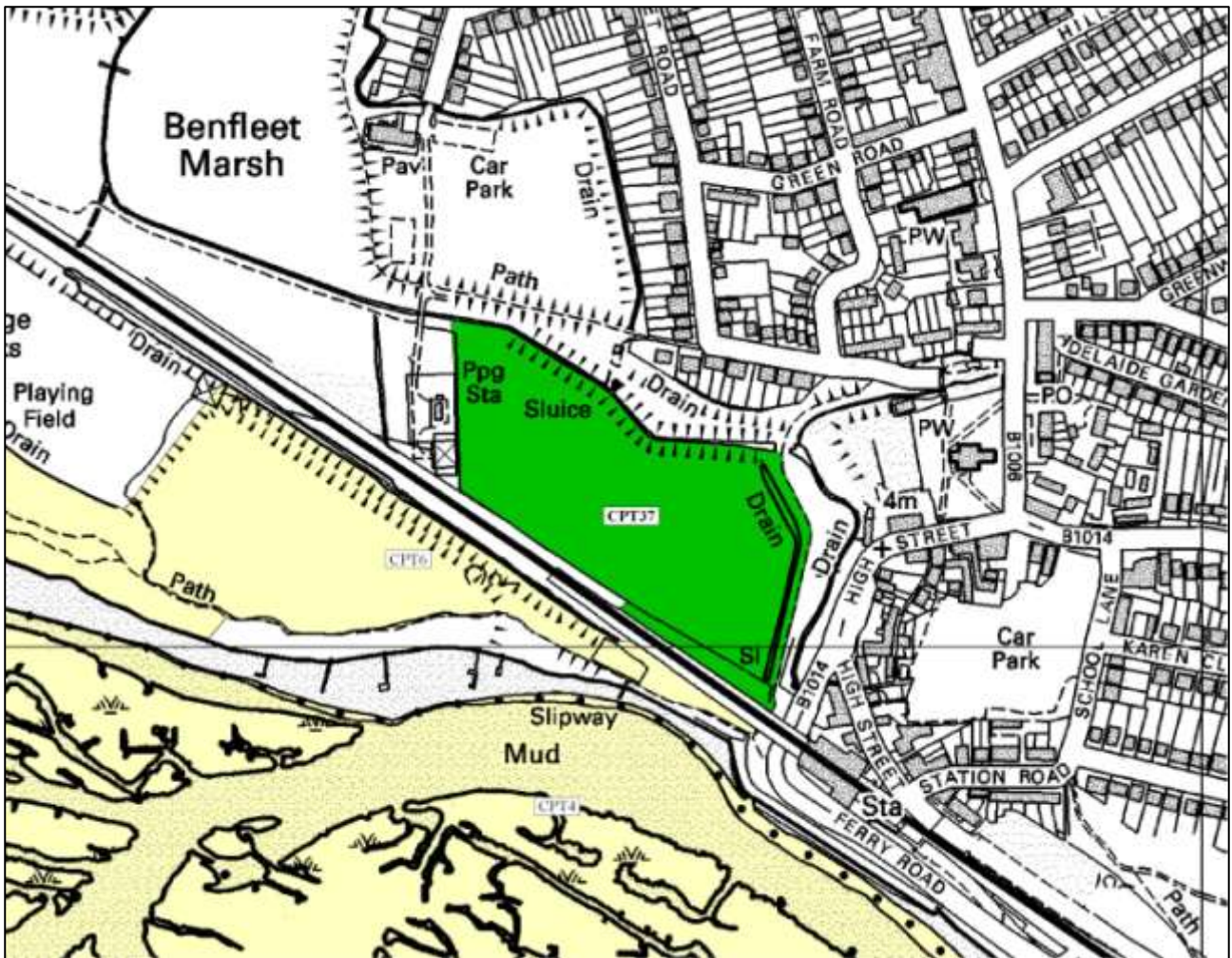
### **Management Issues**

Some management will be needed to maintain the open habitat in the face of scrub encroachment. The sea wall should be managed in a more sensitive way, which would benefit its diversity and strengthen its value as supporting habitat to the Canvey Wick SSSI.

### **Review Schedule**

**Site Selected:** 2007 (PLoWS2 part only)

**Reviewed:** 2012 (CPT36)



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### **CPT37 Benfleet Marsh (3.8ha) TQ775860**

This field is a surviving part of Benfleet Marsh, crossed by the Southend mainline railway in the mid-19<sup>th</sup> Century and largely lost to housing by the 1960s. The rest of the Benfleet Marsh, including what is now Hope's Green, is open space managed as playing fields, and has lost its original character, but this Site has escaped, probably because of its tendency to be wet. It represents a fragment of the grazing marsh

The grass sward includes Creeping Bent (*Agrostis stolonifera*), Meadow Barley (*Hordeum secalinum*) with Marsh Foxtail (*Alopecurus geniculatus*), Strawberry Clover (*Trifolium fragiferum*) and Hairy Buttercup (*Ranunculus sardous*) in the lower, wetter areas that remain from the original saltmarsh topography from before its reclamation. Marginal, drier areas support Agrimony (*Agrimonia eupatoria*), Meadow Vetchling (*Lathyrus pratensis*) and Lady's Bedstraw (*Galium verum*).

The eastern edge of the site is marked by a Common Reed (*Phragmites australis*) and Sea Club-rush (*Bolboschoenus maritimus*) dominated ditch within which is a small population of Water Voles. Common Lizards are present.

### **England BAP Priority Habitats**

Coastal and Floodplain Grazing Marsh

**Selection Criteria**

HC20 Coastal Grazing Marsh

**Rationale**

The plant species present represent a typical grazing marsh community, which reflects the origins of the site and shows a lack of significant agricultural improvement,

**Condition Statement**

The site was in good condition during this assessment; a section of the field having been left uncut.

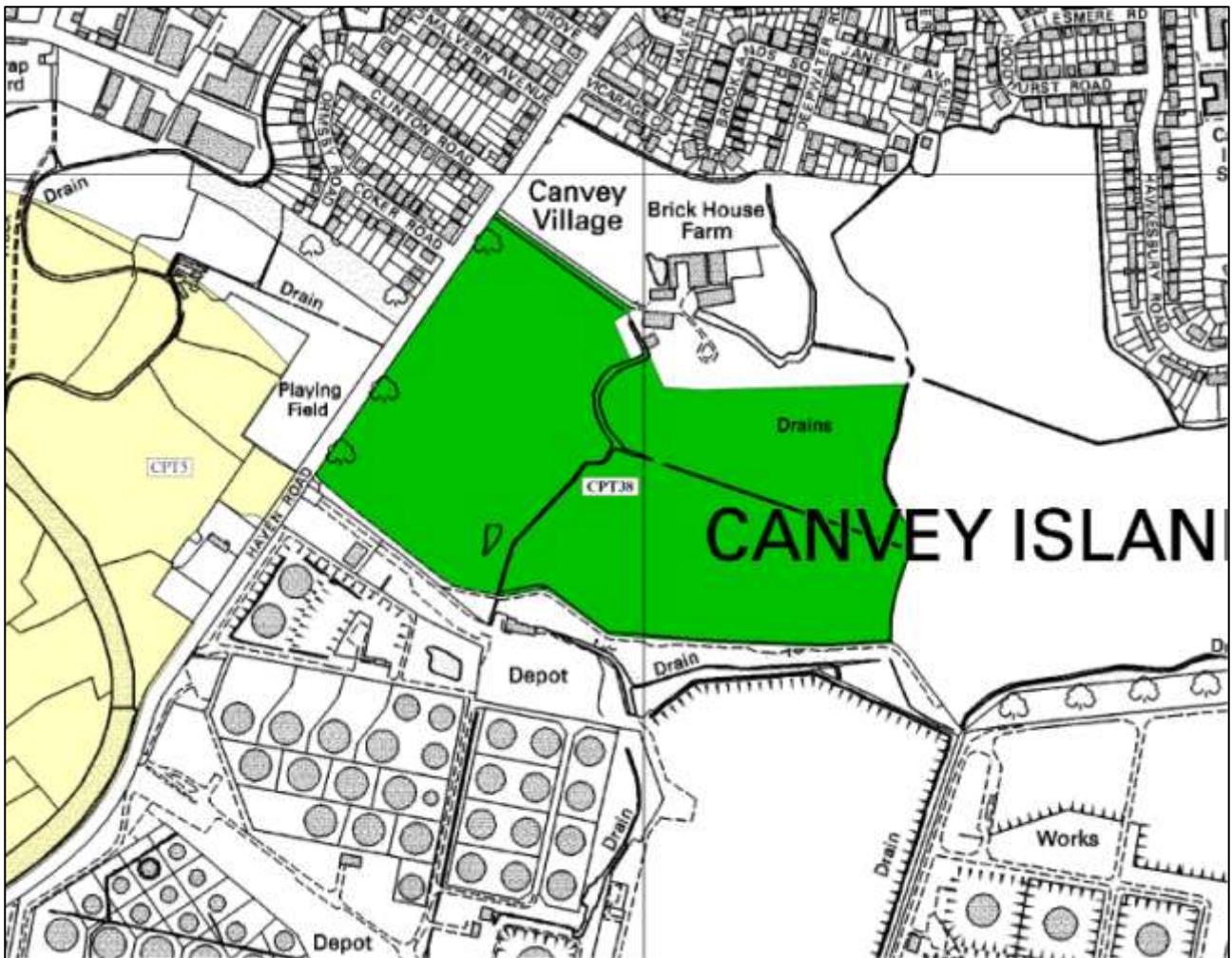
**Management Issues**

A less-intensive management regime would allow the grazing marsh community to become more apparent. Without strategic management, the site's condition will depend on weather conditions, with wet years being far more suitable than dry ones.

**Review Schedule**

**Site Selected:** 2007 (PLoWS3)

**Reviewed:** 2012 (CPT37)



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### **CPT38 Brick House Farm Marsh (13.4ha) TQ779827**

This site represents a surviving area of the coastal grazing marsh habitat that would have once covered Canvey Island. Although managed agriculturally, the fields retain elements of their original topography, with seasonally wet low ways, which become fleets in wet years.

The grasses in the fields include Crested Dog's-tail (*Cynosurus cristatus*), Meadow Barley (*Hordeum secalinum*), Meadow Foxtail (*Alopecurus pratensis*) and timothy (*Phleum* sp.), which are typical of the characteristic grazing marsh grass community, but with Common Couch (*Elytrigia repens*) and Tall Fescue (*Schedonorus arundinacea*) indicating that management is not currently favourable. Herbaceous species are not frequent, but include Common Vetch (*Vicia sativa*), bird's-foot-trefoil (*Lotus* sp.), Red Clover (*Trifolium pratense*) and the Nationally Scarce (*Trifolium squamosum*), which is locally abundant.

The low ways and the margins of the fleets support Saltmarsh Rush (*Juncus gerardii*), Sea Club-rush (*Bolboschoenus maritimus*) and Marsh Foxtail (*Alopecurus geniculatus*), while the fleet contains an abundance of a water crowfoot (*Ranunculus* sp.).

Common Lizards are known to be present.

### **England BAP Priority Habitats**

## Coastal and Floodplain Grazing Marsh

### **Selection Criteria**

HC20 Coastal Grazing Marsh

SC1 Vascular Plants

### **Rationale**

The location, topography and plant communities present combine to illustrate the value of the site as a relatively unimproved area of coastal grazing marsh. The presence of a significant population of Sea Clover, which is Nationally Scarce, justifies the plant criterion.

### **Condition Statement**

Current management is not ideal, but is not being carried out for conservation purposes. Site condition is likely to have been better in 2012 due to the consistent wet weather.

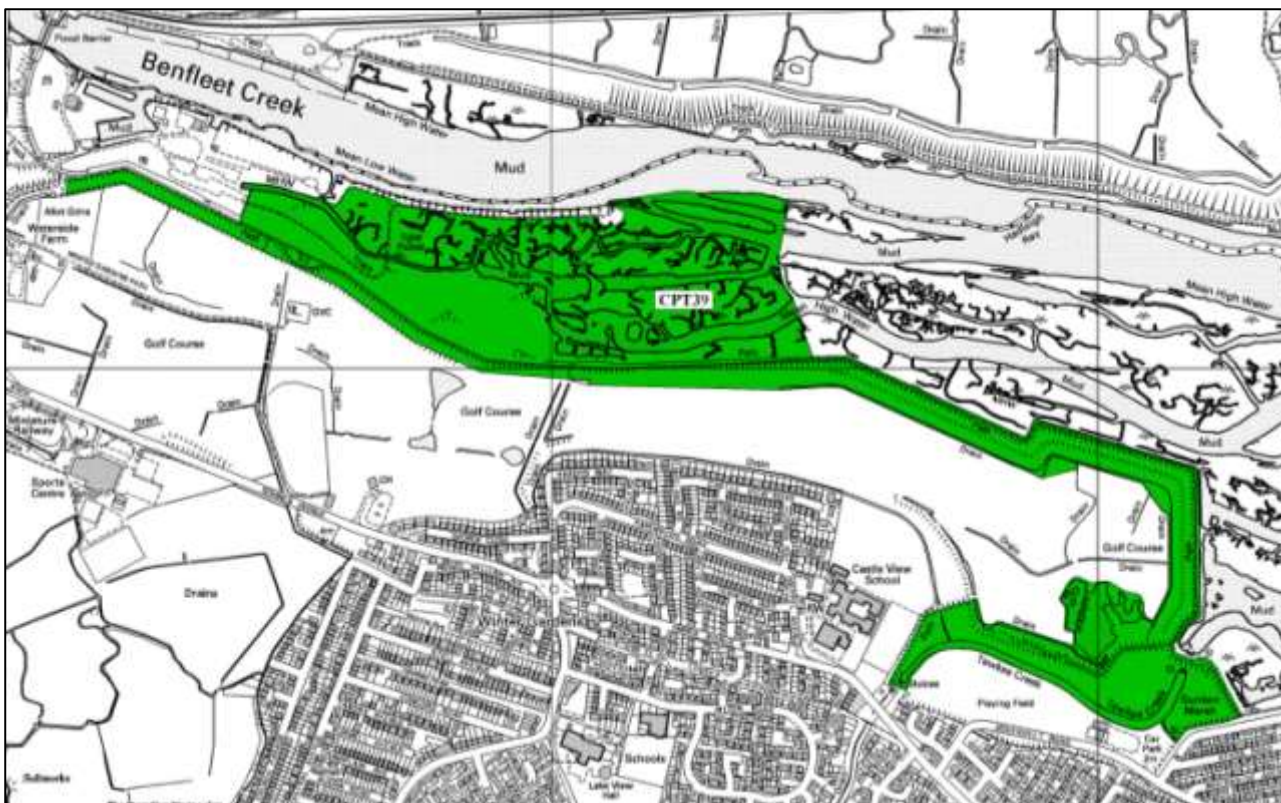
### **Management Issues**

Grazing at a low intensity would be more favourable as a management regime and should result in an increase in plant and invertebrate diversity. Further botanical and invertebrate surveys are likely to result in the discovery of additional species of conservation value.

### **Review Schedule**

**Site Selected:** 2012

**Reviewed:** -



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### **CPT39 Benfleet Creek and Sea Wall (42.3ha) TQ794850**

This site is made up of approximately 2.7km of sea wall grassland, with adjacent scrub, non-SSSI saltmarsh, brackish fleets and a tidal lagoon. The site includes an area of public open space aimed at encouraging outdoor recreational activity in young people.

The sea wall is dominated by grasses such as Crested Dog's-tail (*Cynosurus cristatus*), Timothy (*Phleum pratense*), Red Fescue (*Festuca rubra*), Yellow Oat-grass (*Trisetum flavescens*), Meadow Barley (*Hordeum secalinum*), Rough Meadow-grass (*Poa trivialis*), Cock's-foot (*Dactylis glomerata*) and Tall Fescue (*Schedonorus arundinacea*). More significant herbaceous species include Grass Vetchling (*Lathyrus nissolia*), Salsify (*Tragopogon porrifolius*), Common Vetch (*Vicia sativa*), Narrow-leaved Bird's-foot-trefoil (*Lotus glaber*) and the Nationally Scarce Sea Clover (*Trifolium squamosum*), which is locally abundant. Pyramidal Orchid (*Anacamptis pyramidalis*) is also present.

The borrow dyke and swale (artificially lined in places) that forms the inland boundary of the site for much of its length supports a saltmarsh plant community that includes Common Saltmarsh-grass (*Puccinellia maritima*), Sea Purslane (*Atriplex portulacoides*), Sea Arrow-grass (*Triglochin maritima*), Sea Plantain (*Plantago maritima*), Common Sea Lavender (*Limonium vulgare*), Greater Sea-spurrey (*Spergularia marina*) and Saltmarsh Rush (*Juncus gerardii*) with small stands of Sea Club-rush (*Bolboschoenus maritimus*) and Common Reed (*Phragmites australis*).

The saltmarsh on Benfleet Creek is typical of mid to upper marsh, being dominated by Sea Purslane and Common Saltmarsh-grass with scurvy grass (*Cochlearia* sp.), Sea Aster (*Aster tripolium*) and, on higher ground, Sea Couch (*Elytrigia atherica*). To the west of the saltmarsh, outside of the sea wall, is an area of rough grassland and scrub on land reclaimed from saltmarsh in the 1970s or '80s. It is dominated by False Oat-grass

(*Arrhenatherum elatius*), Sea Couch and Common Couch (*Elytrigia repens*) with Hawthorn (*Crataegus monogyna*), Apple (*Malus* sp.), rose (*Rosa* sp.) and Elder (*Sambucus nigra*) scrub forming dense thickets in places. More open areas support a more diverse plant community including Common Knapweed (*Centaurea nigra*), Narrow-leaved Bird's-foot-trefoil, Red Bartsia (*Odontites vernus*), Meadow Vetchling (*Lathyrus pratensis*), Creeping Cinquefoil (*Potentilla reptans*) and Red Valerian (*Centranthus rubra*).

At the south eastern end of the site, Tewkes Creek is a tidal lagoon, isolated from the sea when the sea walls were rebuilt after the 1953 flood, but more recently reconnected by a sluice. It is now managed to flood at high tide, but retains water at low tide, creating conditions that may support species characteristic of saline lagoons. Its margins support a low to mid saltmarsh plant community with species such as Sea Purslane, Sea Aster, Lesser Sea Spurrey (*Spergularia media*) and Common Saltmarsh-grass, with Red Fescue and Sea Couch beyond. To the north of the creek is an area of rough grass recently planted with trees and beyond that is a brackish lagoon created when the golf course was built in the 1980s, which supports stands of Common Reed and Sea Club-rush.

The sea wall supports Small Heath and Marbled White butterflies, which are locally significant. The habitats and plant species present suggest that the site has the potential to support an interesting invertebrate assemblage. Linnet and Common Whitethroat breed in the scrub outside the sea wall.

### **England BAP Priority Habitats**

Coastal Saltmarsh

Intertidal Mudflats

### **Selection Criteria**

HC11 Other Neutral Grassland

HC20 Coastal Grazing Marsh

HC23 Saltmarsh and Mudflats

HC27 Post-industrial Sites

HC31 Urban Sites

### **Rationale**

The plant species present on the sea wall indicate a long history as grassland, although it has been disturbed during sea wall improvement. The community doesn't fit any England BAP habitat definition, but it is typical of old sea walls around the Essex coast and so HC11 is used. Outside of the sea wall is an area of saltmarsh and mudflats, which match the England BAP habitats and the rough ground is effectively post-industrial though having been land-filled. Tewkes Creek may qualify as a saline lagoon, but more survey information will be needed to demonstrate the presence of invertebrates that are characteristic of this England BAP habitat, so it is currently selected as an intertidal habitat. Habitats adjoining Tewkes Creek are selected for their potential educational value, which is a stated aim for their management.

### **Condition Statement**

Most of the site is in an acceptable condition, although it could be significantly improved by conservation focused management. The rough grass and scrub outside of the sea wall is deteriorating through lack of management.

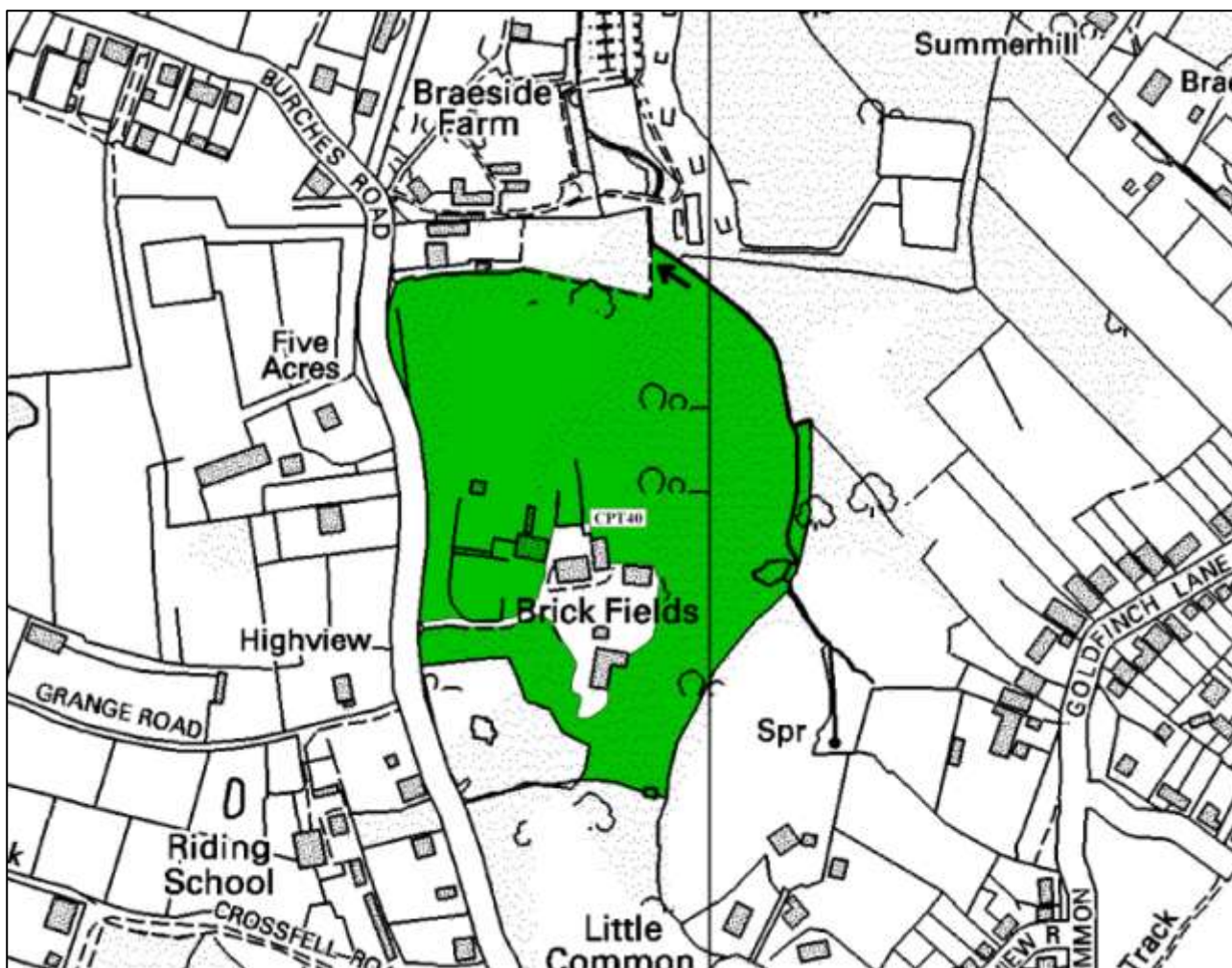
### **Management Issues**

More favourable management of the sea wall is desirable

**Review Schedule**

**Site Selected:** 1992 (C1 part only)

**Reviewed:** 1994 (C1 part only), 2002 (removed), 2012 (reselected as CPT39)



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### **CPT40 Thundersley Brickfields (4.8ha) TQ789895**

This Site occupies a former sand and clay pit and brickworks with its origins in the late 19<sup>th</sup> Century. Industrial activity on the site has recently declined resulting in the establishment of a valuable mosaic of semi-natural habitats.

The most significant areas are in the north western quarter of the site, where nutrient poor, free-draining substrates have developed an open, structurally diverse grassland community. Important flowering species include Ox-eye Daisy (*Leucanthemum vulgare*), Wild Carrot (*Daucus carota*), Common Knapweed (*Centaurea nigra*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Red Bartsia (*Odontites vernus*) and the ERDL species Common Eyebright (*Euphrasia nemorosa*), known from only two other sites in Essex.

To the east of the open ground Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), willow (*Salix*) and Silver Birch (*Betula pendula*) scrub grades into Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) secondary woodland with a generally sparse ground flora.

Along the eastern edge of the site is a thin strip of apparently ancient streamside woodland with a canopy of oak and Ash, and some coppiced Hornbeam (*Carpinus betulus*). The stream banks support some ancient woodland indicator species, including Wood Anemone

(*Anemone nemorosa*), Moschatel (*Adoxa moschatellina*), Remote Sedge (*Carex remota*) and Bluebell (*Hyacinthoides non-scripta*).

The site has been found to support a diverse assemblage of invertebrates including ten that appear in Red Data Books and 30 considered to be Nationally Scarce. These include the England BAP Priority Species Brown-banded Carder Bee (*Bombus humilis*) as well as the leaf beetle *Zeugophora flavicollis*, the lauxaniid fly *Cnemacantha muscaria*, and the mining bee *Lasioglossum pauperatum*, all of which are in their relevant Red Data Books.

Slow Worm and Palmate Newt are known to be present.

### **England BAP Priority Habitats**

Open Mosaic Habitats on Previously Developed Land  
Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC1 Ancient Woodland Sites  
HC27 Post Industrial Sites  
HC28 Small Component Mosaics  
SC19 Important Invertebrate Assemblages

### **Rationale**

The site is best described by its development history, which has resulted in its primary conservation interest, so the post-industrial sites criterion is most applicable. The site's ecological unit includes the scrub and secondary woodland habitats that border the open habitats and so the mosaic criterion is used to recognise this. The small streamside wood is not documented as ancient (being too small for the Ancient Woodland Inventory), but its character and composition clearly indicate that origin.

### **Condition Statement**

The site's condition is favourable though inevitably declining through natural succession of its vegetation.

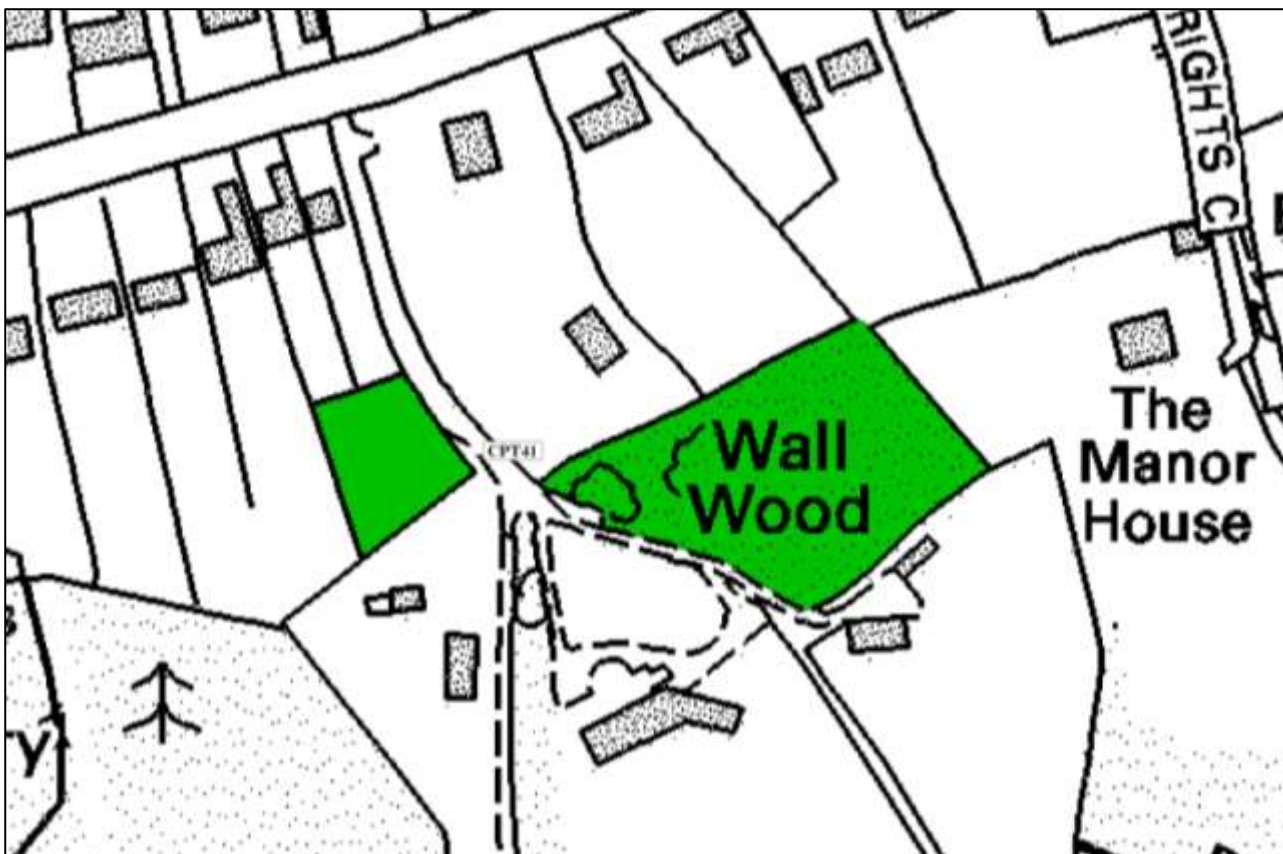
### **Management Issues**

Maintenance of open conditions with bare substrates is essential, but it would be possible to greatly enhance the site through a comprehensive conservation management plan.

### **Review Schedule**

**Site Selected:** 2012 (CPT40)

**Reviewed:** -



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#### **CPT41 Wall Wood (0.8ha) TQ793866**

Two remaining fragments of a much larger ancient woodland block make up this Site. The canopy comprises mainly Hornbeam (*Carpinus betulus*) with some Ash (*Fraxinus excelsior*) and Pedunculate Oak (*Quercus robur*). Silver Birch (*Betula pendula*), Aspen (*Populus tremula*) and Holly (*Ilex aquifolium*) make up the understorey.

The ground flora is generally sparse, but does contain the ancient woodland indicators Dog's Mercury (*Mercurialis perennis*), Bluebell (*Hyacinthoides non-scripta*) and Yellow Archangel (*Lamium galeobdolon*).

#### **England BAP Priority Habitats**

Lowland Mixed Deciduous Woodland

#### **Selection Criteria**

HC1 Ancient Woodland Sites

#### **Rationale**

The Site's ancient woodland status is well documented

#### **Condition Statement**

These are very small woodland fragments with little ecological value beyond their soil history. They are too small and isolated to function well as woodland habitats.

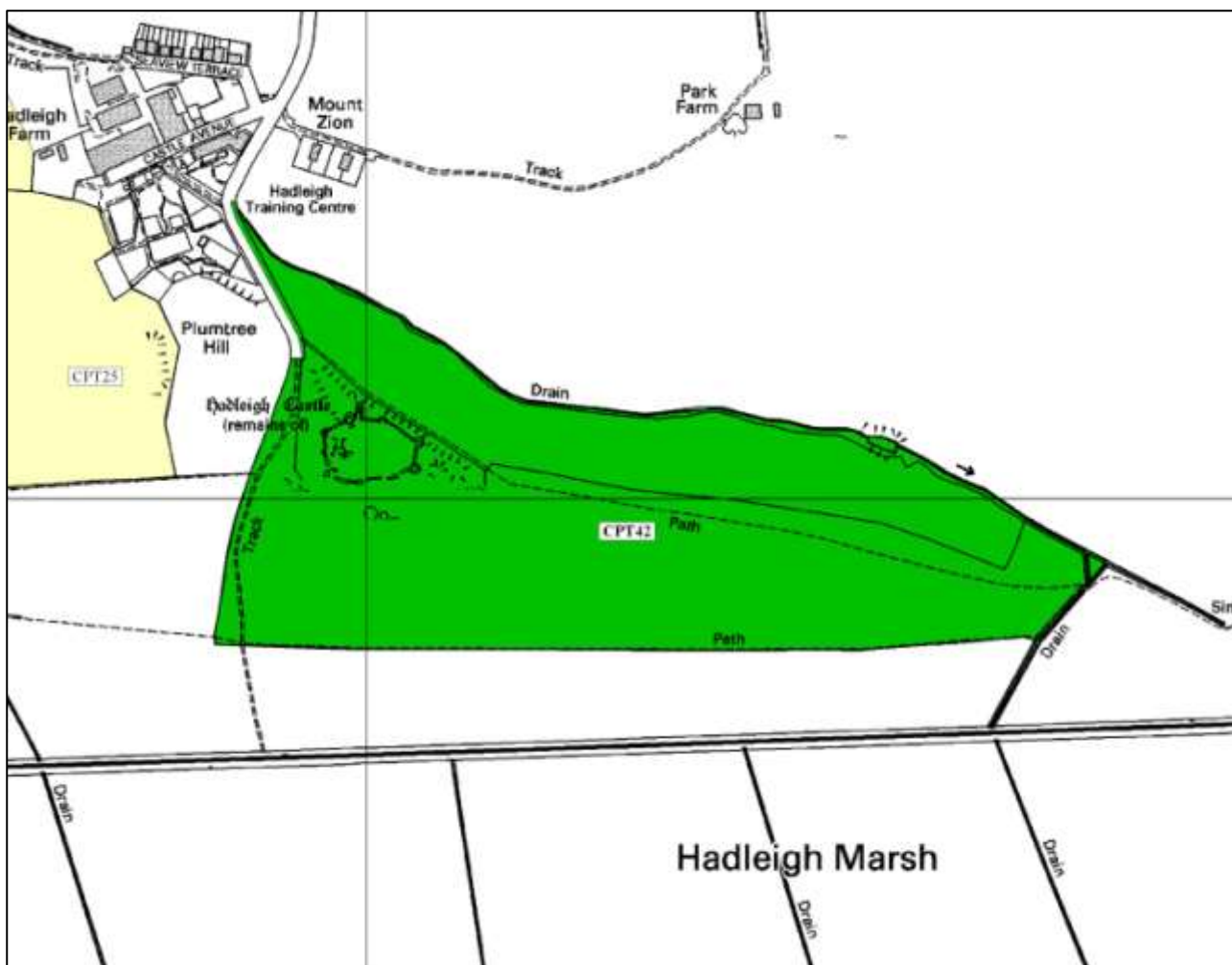
#### **Management Issues**

Without positive woodland management the ground flora will decline, but garden creep and development pressure are probably more relevant.

**Review Schedule**

**Site Selected:** 2002 (As part of CP22)

**Reviewed:** 2007 (part of CP22), 2012 (CPT41)



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### **CPT42 Hadleigh Castle Grasslands (25.6ha) TQ813860**

This site includes the enclosed grassland in the grounds of the castle itself and the pastures on either slope of the ridge extending eastward from it. It formed an integral part of the Hadleigh Marsh and Downs landscape until it became somewhat isolated, first by the railway and then by the drainage and ploughing of the grazing marsh to the south, which came around 1980.

Where management is suitable, the grassland around the ruined castle is largely unimproved, although some areas are frequently mown for amenity purposes and other areas have become overgrown with scrub or coarse grasses. Grass species include Meadow Barley (*Hordeum secalinum*), Timothy (*Phleum pratense*), Yellow Oat-grass (*Trisetum flavescens*), and Crested Dog's-tail (*Cynosurus cristatus*) with Prickly Sedge (*Carex muricata*). As the grassland has an acidic influence, the diversity of herbaceous species is not high, but they include Mouse-eared Hawkweed (*Pilosella officinalis*), Common Knapweed (*Centaurea nigra*), Red Clover (*Trifolium pratense*) and the national Red Data Book and England BAP Priority Species Deptford Pink (*Dianthus armeria*).

The castle walls support a distinctive range of plant species including Thyme-leaved Sandwort (*Arenaria serpyllifolia*), Hart's-tongue (*Asplenium scolopendrium*), Pellitory-of-the-wall (*Parietaria judaica*), Annual Wall-rocket (*Diplotaxis muralis*), the ERDL Flattened

Meadow-grass (*Poa compressa*) and the Nationally Scarce Lesser Calamint (*Clinopodium calamintha*).

The pastures beyond the castle enclosure are variable, the southern slope supporting the best unimproved grassland community. Punctuating the grass is scattered Hawthorn (*Crataegus monogyna*), rose (*Rosa* sp.) and Bramble (*Rubus fruticosus*) scrub and occasional Pedunculate Oak (*Quercus robur*) and Field Maple (*Acer campestre*) trees. The scrub is particularly dense lower on the southern slope. Significant plant species include Meadow Vetchling (*Lathyrus pratensis*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Grass Vetchling (*Lathyrus nissolia*), Agrimony (*Agrimonia eupatoria*), Spiny Restharrow (*Ononis spinosa*) and the ERDL species Pale Flax (*Linum bienne*).

The Site supports a range of nationally significant invertebrates, although systematic surveys have not been completed. These include the RDB2 longhorn beetle *Gracilia minuta*, the RDB3 mining bee *Andrena pauperatum*, the Nationally Scarce weevil *Rhinocyllus conicus*, and the England BAP Priority bumblebee species Shrill Carder and Brown-banded Carder (*Bombus sylvarum* and *B. humilis*). Good populations of the ERDL species Marbled White butterfly (*Melanargia galathea*) and Great Green Bush Cricket (*Tettigonia viridissima*) are of more local significance.

## **England BAP Priority Habitats**

Lowland Meadows

### **Selection Criteria**

HC9 Lowland Meadows

SC1 Vascular Plants

SC18 England BAP Priority Invertebrates

SC19 Important Invertebrate Assemblages

### **Rationale**

The site is unimproved, with several key species indicative of a long grassland history present. The plant criterion is used because of the presence of Deptford Pink, Lesser Calamint, Flattened Meadow-grass and Pale Flax. The invertebrate criteria are used for the two carder bees and for the overall assemblage of species.

### **Condition Statement**

Grassland management is sub-optimal at present, the castle grasslands being generally undermanaged and those beyond being over-grazed. Scrub encroachment is also a problem.

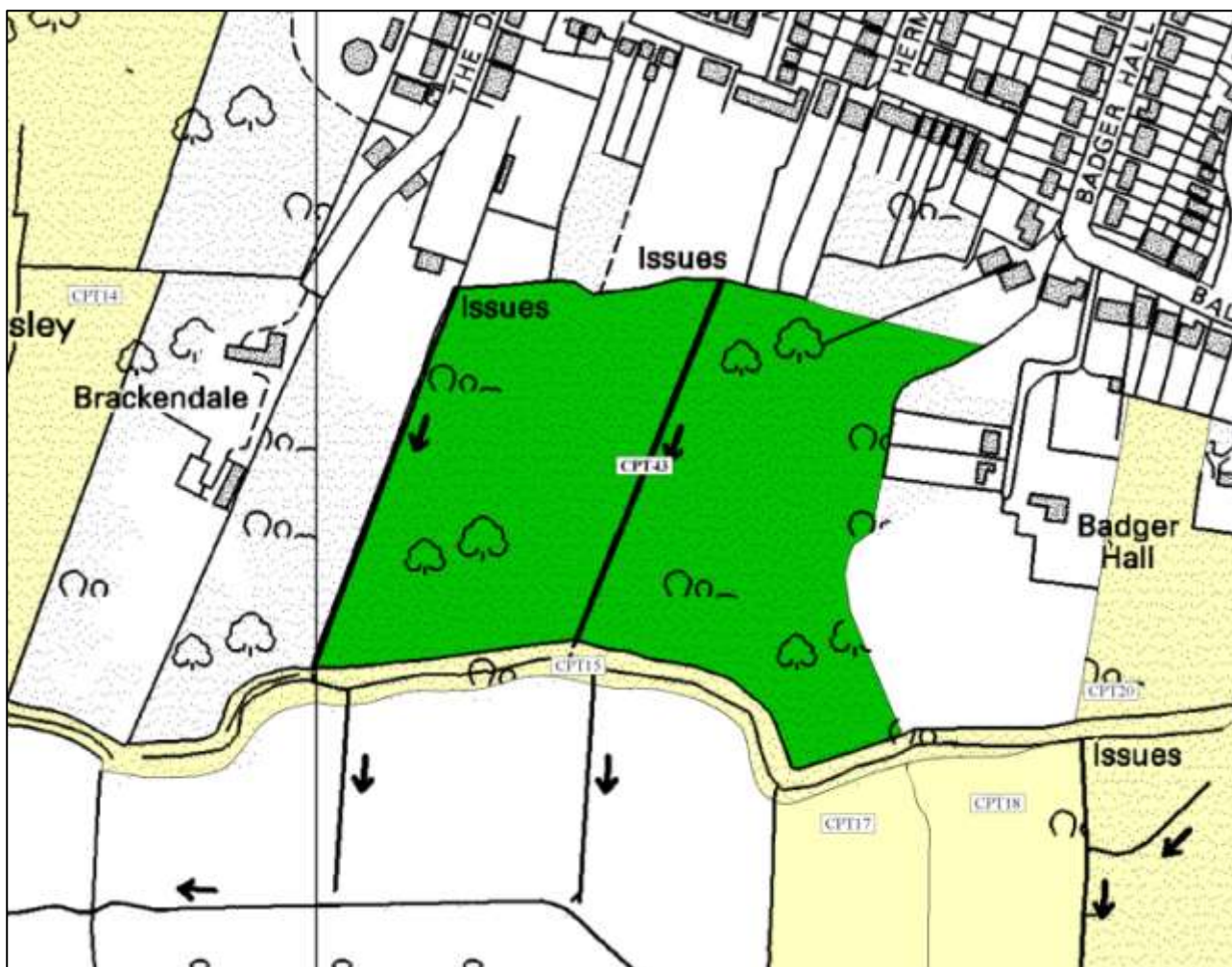
### **Management Issues**

Better control of grazing pressure, combined with scrub reduction (but not elimination) would benefit the scarce plants of the southern slope. Grazing in late autumn, winter and/or early spring would allow the plant species to flower more extensively. More areas of the enclosure should be cut, once a year in late autumn initially with all cuttings removed.

### **Review Schedule**

**Site Selected:** 1992 (G12c)

**Reviewed:** 1994 (part of G20), 2002 (part of CP25), 2007 (part of CP25), 2012



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### **CPT43 Badger Hall Woods (5.9ha) TQ791874**

This site is made up of a block of secondary woodland dating from the late 19<sup>th</sup> Century on the site of the long-lost, ancient Jervis Wood. Its eastern edge occupies a steep valley slope that holds a number of very large Pedunculate Oaks (*Quercus robur*) that may have survived the grubbing out of Jervis Wood in the early 19<sup>th</sup> Century.

The canopy is made up of Pedunculate Oak and Ash (*Fraxinus excelsior*) with some Silver Birch (*Betula pendula*) and coppiced Hornbeam (*Carpinus betulus*). The understorey comprises Hawthorn (*Crataegus monogyna*), Field Maple (*Acer campestre*), Hazel (*Corylus avellana*), elm (*Ulmus* sp.) and Holly (*Ilex aquifolium*). Sycamore (*Acer pseudoplatanus*) is spreading from the north east.

Much of the ground flora is dominated by Bramble (*Rubus fruticosus*) with Bracken (*Pteridium aquilinum*) where the canopy is more open. A number of ancient woodland indicators are present including Giant Fescue (*Festuca gigantea*), Hairy-brome (*Bromopsis ramosus*), Remote Sedge (*Carex remota*), Wood Sedge (*Carex sylvatica*), Sanicle (*Sanicula europaea*), Bluebell (*Hyacinthoides non-scripta*) and Yellow Archangel (*Lamium galeobdolon*).

Wetter areas in the northern central part of the site support an abundance of Pendulous Sedge (*Carex pendula*) with Giant Horsetail (*Equisetum telmateia*) and Angelica (*Angelica sylvestris*). The non-native Indian Balsam (*Impatiens glandulifera*) is also present.

There is a large Badger sett within the Site.

### **BAP Habitats**

Lowland Mixed Deciduous Woodland

### **Selection Criteria**

HC2 Lowland Mixed Deciduous Woodland on Non-ancient Sites

### **Rationale**

The Site's history is well-documented and clearly rules out the possibility of ancient status, but it does conform to the England BAP woodland habitat definition and provides a valuable extension to the connected ancient woodlands.

### **Condition Statement**

The site is in reasonable condition despite a lack of conservation management.

### **Management Issues**

The encroachment of adjacent gardens is the primary threat to the site, although the structure of the wood will decline in quality without positive management.

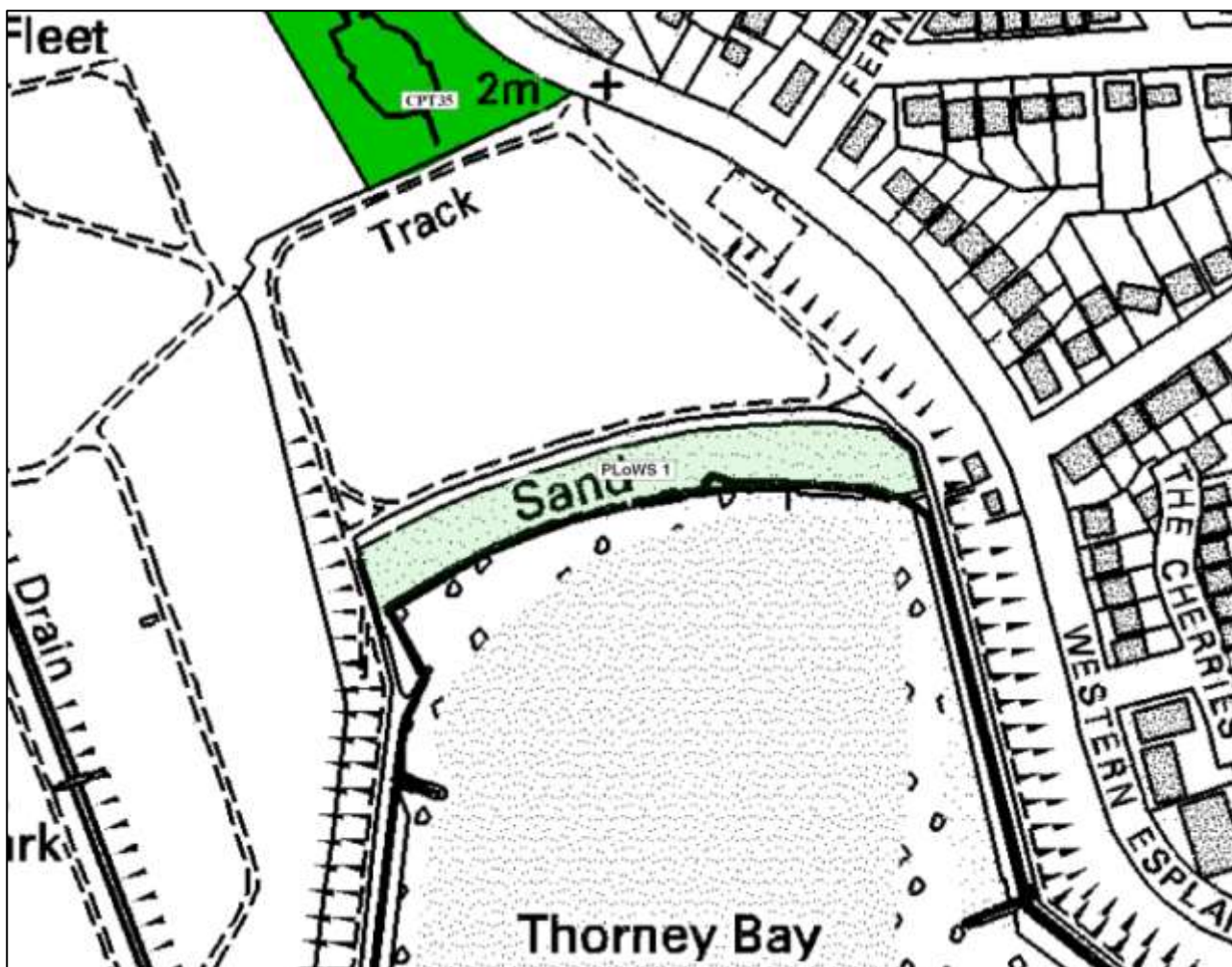
### **Review Schedule**

**Site Selected:** 2007 (PLoWS4)

**Reviewed:** 2012 (CPT43)

### **ANNEX 3**

### **POTENTIAL LOCAL WILDLIFE SITES**



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## **PLoWS 1 Thorney Bay TQ 795825**

### Previous Description

This area of coastal grassland and sand mimics a “dune” environment and a number of coastal invertebrates have been recorded from here. Further survey work may yield sufficient data to merit identification as a Local Wildlife Site, although it may always be restricted to an area of more “local” interest.

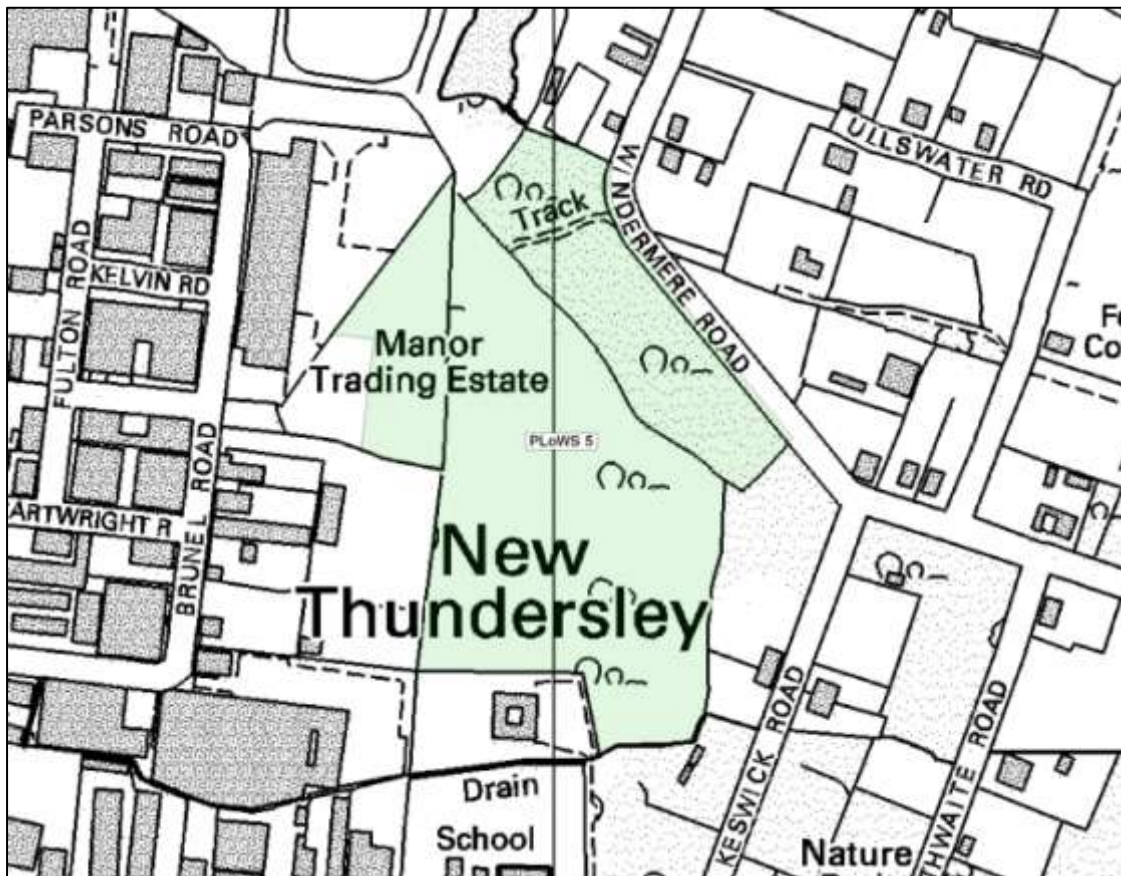
### Current Assessment

Very little stabilised vegetation remains on this site, which appears to have been significantly modified at some point in recent years as part of improvements to coastal defences. Remaining plant species are largely common ruderals, with only very small quantities of coastal species such as Sea Holly (*Eryngium maritimum*), Sea Beet (*Beta vulgaris*) and Sea Couch (*Elytrigia atherica*). As a result, invertebrate populations are unlikely to reach LoWS quality and no significant species were found during the site visit. No selection criterion is satisfied at the present time.

### Future Potential

Coastal sites are inherently dynamic and so it is possible that material will accumulate in such a way as to allow the re-establishment of more interesting vegetation communities, with the consequent potential for characteristic and significant invertebrate species. The

site should, therefore, be retained as a PLoWS and be reassessed during any future LoWS review. The most likely criteria are HC24 Sand Dune and Shingle Beach Vegetation and SC19 Important Invertebrate Assemblages



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## **PLoWS 5 Land off Manor Trading Estate TQ 780892**

### Previous Description

This piece of land represents a surviving fragment of a site that was formerly listed as Site of Importance for Nature Conservation (SINC) for Castle Point Borough, named Hillview Stables Meadow. It was removed from the register following an appraisal that felt that the species-rich grassland was largely degraded as the result of cessation of grazing and the significant encroachment by scrub. The western tip of the old SINC has been cleared and incorporated into the curtilage of one of the trading estate businesses.

### Current Assessment

Scrub expansion has continued on this site such that only a very small proportion remains open, with much of that dominated by coarse grass species. A good diversity of species remains, reflecting the essentially unimproved origin of the grassland. More interesting species include Crested Dog's-tail (*Cynosurus cristatus*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Meadow Barley (*Hordeum secalinum*), Grass Vetchling (*Lathyrus nissolia*), Common Knapweed (*Centaurea nigra*), Red Bartsia (*Odontites vernus*) and Oxeye Daisy (*Leucanthemum vulgare*). At present the extent and condition of the open grassland does not raise the site sufficiently for the lowland meadows criterion to be used.

Most of the habitat to the west, fenced off as part of the adjacent industrial estate, still

remains semi-natural and should be considered as part of the same habitat block and so part of the PLoWS.

The woodland to the northeast of the site, although clearly recent in origin shows some interest, with Sanicle (*Sanicula europaea*), Wood Sedge (*Carex sylvatica*) and Hairy-brome (*Bromopsis ramosus*) in the ground flora.

#### Future Potential

It would be possible for the site to be restored to a condition that would satisfy LoWS selection criteria, by a reduction in the extent of scrub and by more favourable grassland management. An improvement in the grassland habitat combined with greater maturity of the adjacent woodland, may satisfy the HC27 Small-component Mosaics criterion, even if the HC9 Lowland Meadows criterion cannot be applied.



## **PLOW 8 Grasmere Road Pastures TQ785890**

### Previous Description

Not previously described.

### Current Assessment

This site is centred on two groups of horse-grazed pastures on either side of Grasmere Road, but also includes several blocks of woodland and scrub. Both sets of pastures had been heavily grazed when they were visited, but enough species were present to indicate that the site may not have been systematically improved for agriculture. Typical grasses included Crested Dog's-tail (*Cynosurus cristatus*), Meadow Barley (*Hordeum secalinum*), Meadow Foxtail (*Alopecurus pratensis*), Common Bent (*Agrostis capillaris*) and timothy (*Phleum* sp.). Herbaceous species included Common Knapweed (*Centaurea nigra*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Common Centaury (*Centaureum erythraea*) and Oxeye Daisy (*Leucanthemum vulgare*).

It was not possible to be certain of the quality of the grassland, as a result of the over-grazing, and none of the key unimproved grassland indicators was found during this brief survey, so it was not possible to use the Lowland Meadow selection criterion.

### Future Potential

A more complete botanical survey, preferably after a period without horse grazing, would reveal more about the quality and character of the grassland and may allow the HC9 Lowland Meadows criteria to be applied. An invertebrate assessment may also be

appropriate and could provide evidence to support the use of the SC18 England BAP Priority Invertebrate or SC19 Important Invertebrate Assemblages criteria. This site has been proposed for development.



### **PLOW 9 Glyders Meadow TQ784860**

#### Previous Description

Not previously described.

#### Current Assessment

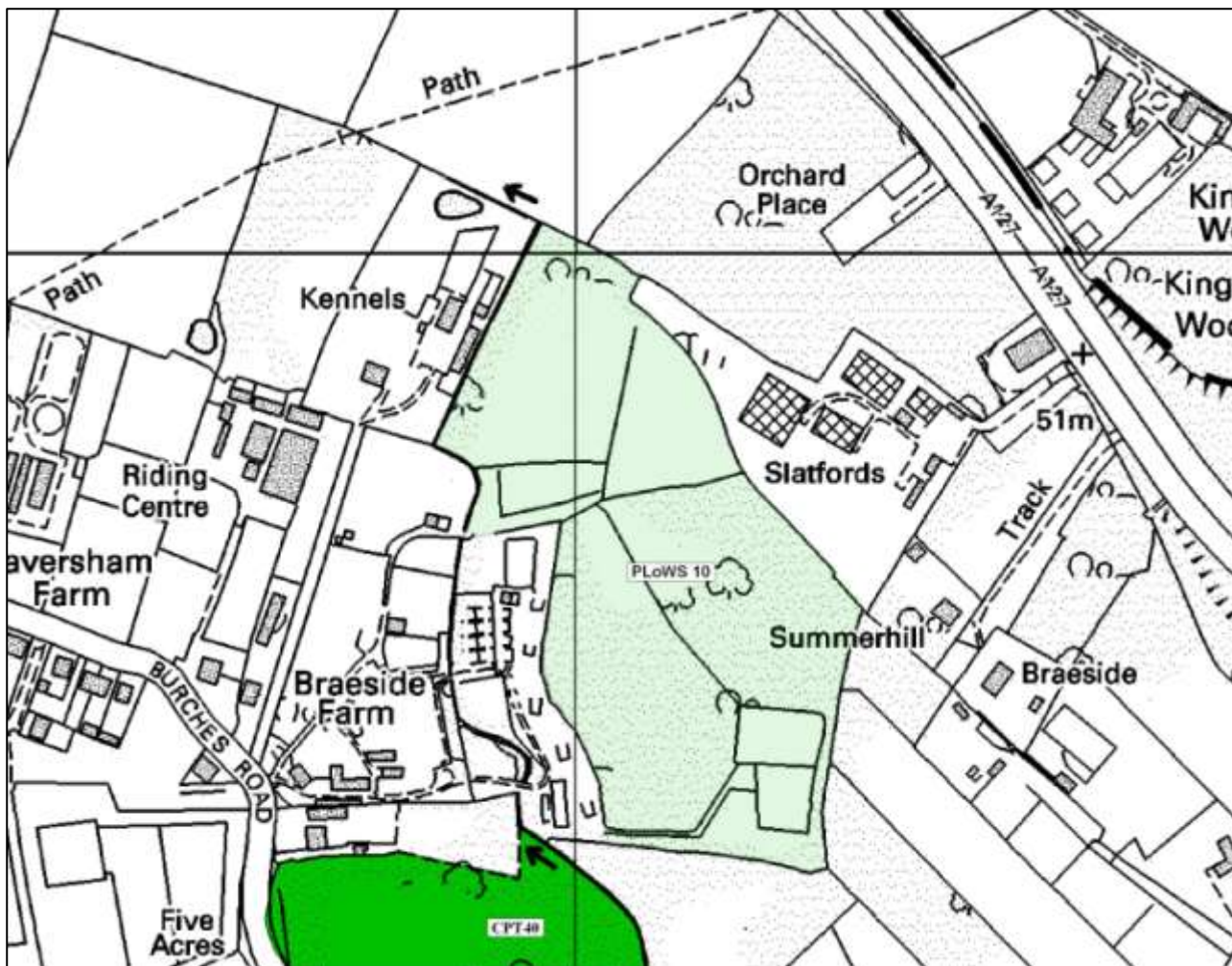
This meadow has not been managed in recent years and so is dominated by coarse grasses, with scrub also invading. A good variety of grasses and herbaceous species are present although generally at low frequency. Species include Crested Dog's-tail (*Cynosurus cristatus*), Meadow Barley (*Hordeum secalinum*), Red Fescue (*Festuca rubra*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Field Wood-rush (*Luzula campestris*), Meadow Vetchling (*Lathyrus nissolia*), Common Knapweed (*Centaurea nigra*), Agrimony (*Agrimonia eupatoria*), Red Bartsia (*Odontites vernus*) and Common Bird's-foot Trefoil (*Lotus corniculatus*).

Great Green Bush Cricket and Marble White butterfly, both of local significance, were recorded during the site visit.

#### Future Potential

The grassland community present in this meadow is of conservation significance, but its current condition prevents its selection as a LoWS. An improvement in management, light

grazing and the removal of invading scrub, could be enough to allow the HC9 Lowland Meadow criterion to be applied.



## **PLOWs 10 Braeside Farm Pastures TQ790898**

### Previous Description

Not previously described.

### Current Assessment

This site has not been visited, but on aerial photos it looks to be an interesting piece of land. It consists of a series of horse-grazed pastures with some scrub, bordered by large hedgerows. The southern half is on a slope shared with the Thundersley Brickfields LoWS and the Hadleigh Great Common SSSI, suggesting that the soils may be acidic in nature. There is therefore a good chance that the site supports acid grassland vegetation.

### Future Potential

If the site can be accessed to carry out a botanical survey, and grazing pressure is not too high, then it is possible that the HC12 Heathland and Acid Grassland criterion can be applied. If this is the case, then the site could also support a significant invertebrate assemblage, which could justify SC19 Important Invertebrate Assemblages.



## **PLows 11 St Michael's Road Fields TQ819890**

### Previous Description

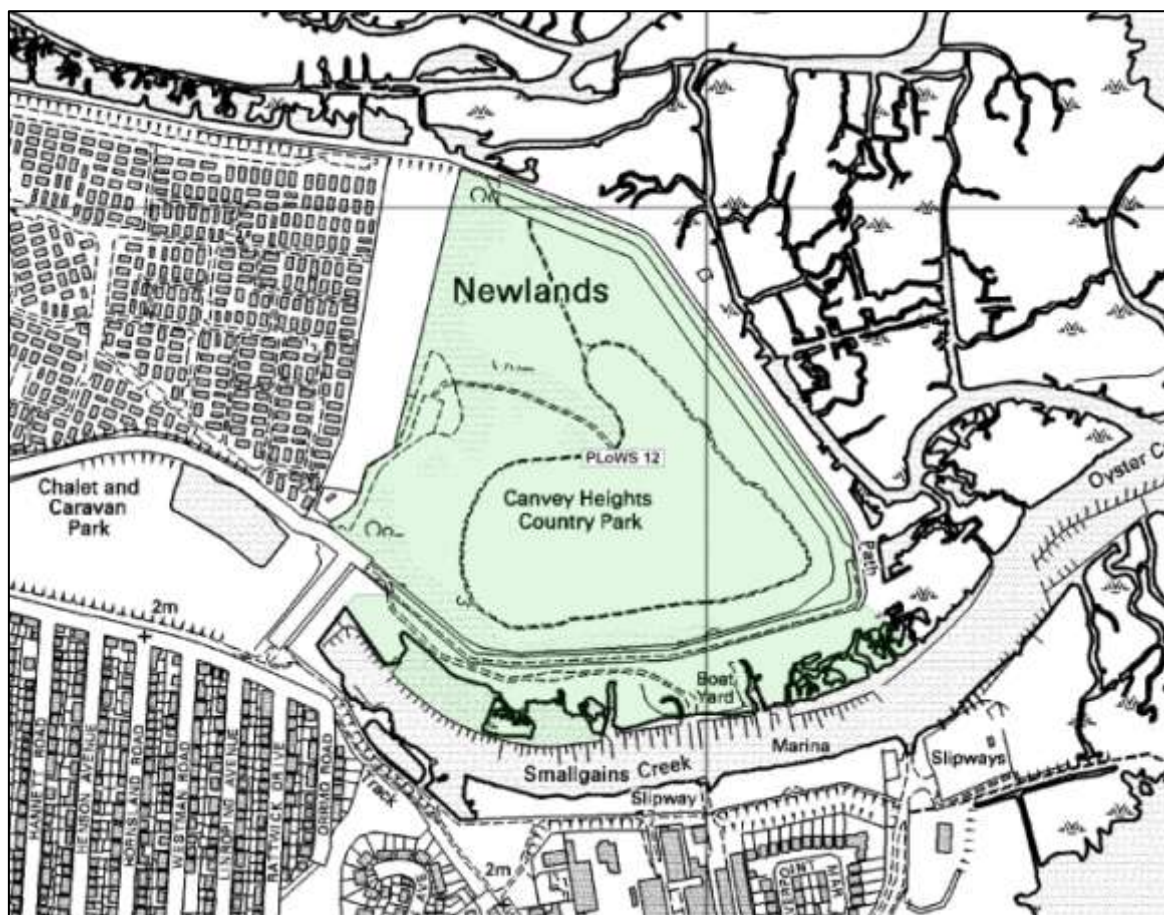
Not previously described.

### Current Assessment

This site is made up of a large block of former pasture land adjacent to Pound Wood that is managed privately for nature conservation. The diversity of the grassland has been improved, woodland blocks have been planted and a lake and several ponds have been dug. Although man-made the collection of habitats is likely to be of significant benefit to wildlife, not least by linking up and extending the adjacent Local Wildlife Sites.

### Future Potential

A thorough survey of habitats may allow the site to be selected under the HC27 Small-component Mosaics criterion. Species surveys – such as for reptiles or invertebrates – may reveal evidence that would allow one or more of the species criteria to be applied.



## **PLoWS 12 Canvey Heights Country Park TQ819837**

### Previous Description

Not previously described.

### Current Assessment

Canvey Heights Country Park was recently established on a former landfill site at the eastern end of Canvey Island. It consists of rough grass and planted scrub, with some areas of frequently mown amenity grassland. An area on the western slope of the park has been improved with the specific aim of creating invertebrate habitat.

The habitats at present are not of sufficient quality to satisfy any of the selection criteria.

To the south of the country park are fragments of saltmarsh along Smallgains Creek that lie outside of the adjacent SSSI. These are small and degraded, with considerable pressure from boat activity in the creek.

### Future Potential

The country park will continue to develop over time, although the habitats themselves are unlikely to improve sufficiently to meet any of the selection criteria. It is possible that the site could qualify under one or more of the species criteria, particularly if the on-going habitat improvements are successful in attracting any England BAP Priority species (such as the Shrill or Brown-banded Carder bees). The park is also capable of supporting reptiles, whether arriving naturally or relocated from a development site, which could lead

to the SC16 Hotspots for Reptile Diversity criterion being applied. The degraded saltmarsh could be used to support the designation of the site if another criterion is justified.

## **ANNEX 4**

### **SITES REMOVED FROM LoWS or PLoWS** **and OTHER SITES ASSESSED**



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## CP2 Montgomery School Meadow (3.8 ha) TQ 765889

### Previous Description

This site comprises species-rich grassland with scattered scrub, developing on a very poor, thin soil, with a low nutrient status helping to keep the seasonally parched soils flower-rich. The grassland contains a number of sedges, including Glaucous Sedge (*Carex flacca*) and Black Sedge (*Carex nigra*), which is rare in south Essex. Other components of the sward include Common Centaury (*Centaureum erythraea*), Black Knapweed (*Centaurea nigra*), Wild Carrot (*Daucus carota*), Grass Vetchling (*Lathyrus nissolia*), Bird's-foot Trefoil (*Lotus corniculatus*), various clovers (*Trifolium* spp.) and Common Fleabane (*Pulicaria dysenterica*). This wide range of albeit common grassland herbs provides an extremely good food source for invertebrates, providing both nectar and pollen sources from early in the spring right through to late autumn, with the result that invertebrate populations are likely to be very rich here. A sample of bumblebees showed five of the six common species to be present on the site, along with a good range of butterfly species. Lack of recent management is allowing the spread of scrub, although this still largely remains scattered bushes within the grassland matrix. Some form of management would be desirable in order to maintain the current diversity of plant species. Common Lizard and Slow-worm have both been recorded.

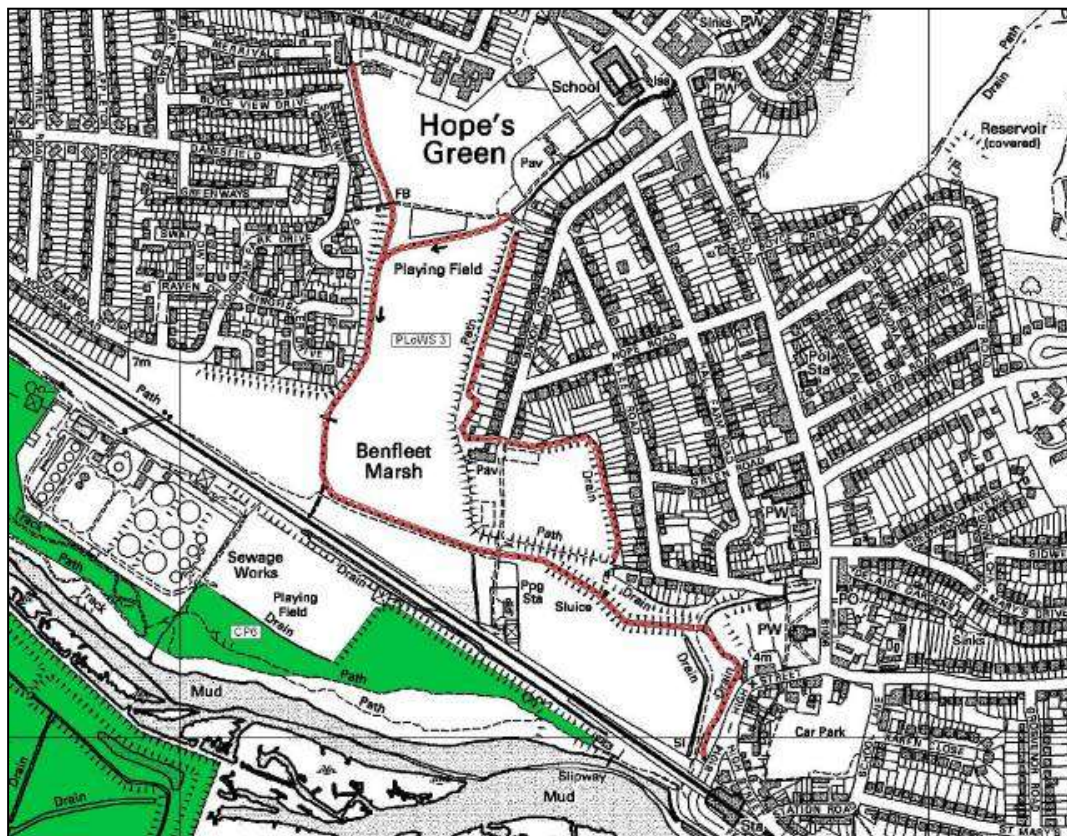
### Current Assessment

The site has been agriculturally improved since the last survey visit, with the majority of scrub and young trees removed. The grassland has been re-seeded, now consisting almost entirely of Perennial Rye-grass, Yorkshire Fog and a species of brome. The sward was sparse and the drill lines were visible. Aerial photographs from Google Earth suggest that scrub removal occurred in 2008 and that the site has been cultivated on a number of occasions since.

Half way along the western boundary of the site a small group of scrubby Pedunculate Oaks remained, and within the group the ground level was slightly lower and supported a plant community that had escaped cultivation. Here the sward comprised of Crested Dog's-tail (*Cynosurus cristatus*), timothy (*Phleum* sp.) and Creeping Bent (*Agrostis stolonifera*) with Creeping Cinquefoil (*Potentilla repens*), Common Bird's-foot-trefoil, Meadow Vetchling (*Lathyrus pratensis*), Oxeye Daisy (*Leucanthemum vulgare*), Perforate St John's-wort (*Hypericum perforatum*), Smooth Tare (*Vicia tetrasperma*) and Red Clover (*Trifolium pratense*).

### Conclusion

As a result of this assessment, the site is to be removed from the Local Wildlife Site Network during this review. The site and the adjacent fields are now known to support three species of reptiles – Common Lizard, Slow Worm and Adder – although there is no information about their populations following ploughing operations. With the site proposed for development, under current ownership it is unlikely to recover sufficiently to regain LoWS status.



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## **PLOW3 Hope's Green Ditches TQ 773864**

### Previous Description

Despite their location within an intensively managed area of amenity grassland, these ditches may prove to be important for their Water Vole population. Water Voles were observed during 2002, but a more intensive and widespread survey is needed in order to establish the full extent of the population here, if it still survives.

### Current Assessment

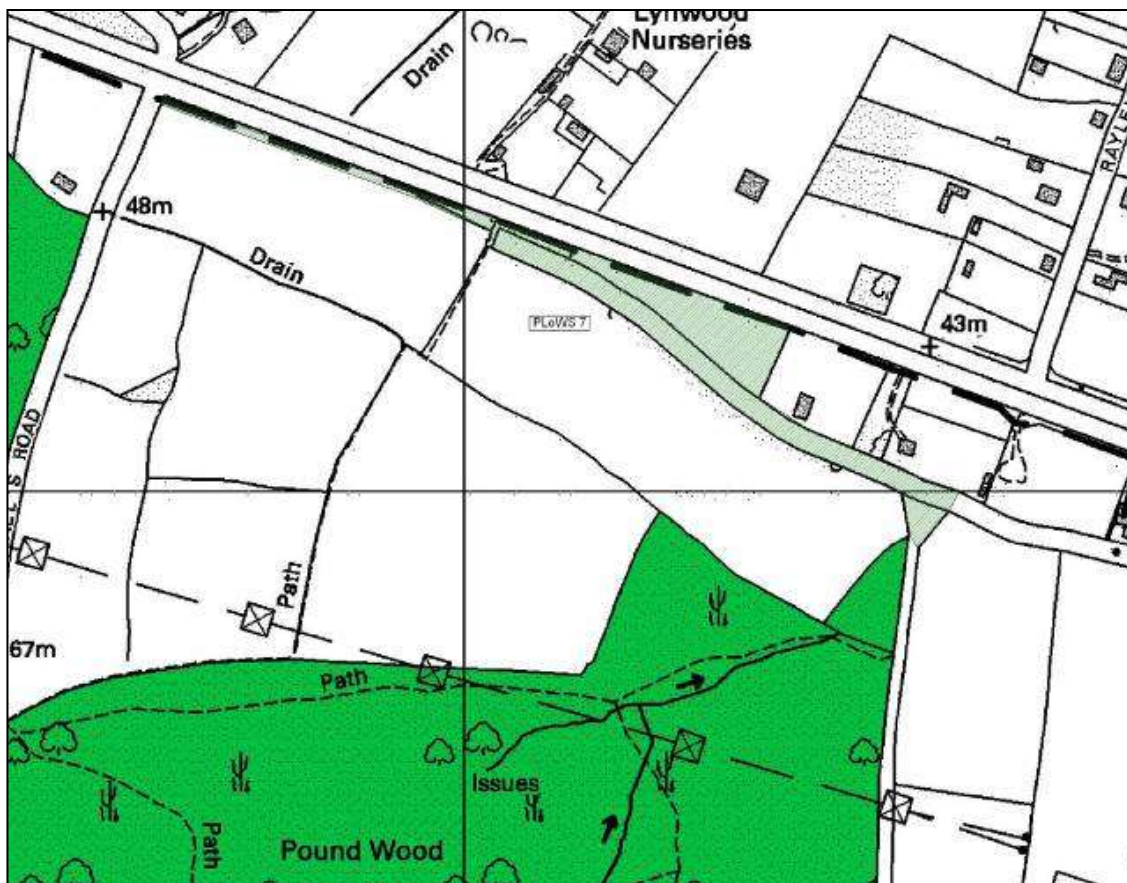
Part of this area has been selected as CPT37 Benfleet Marsh, which includes a section of ditch along which Water Voles were active. All of the other ditches were searched for evidence of Water Vole activity during the breeding season when territorial marking should have been very obvious. Only one other location showed any evidence of Water Vole activity. Most of the ditches support suitable vegetation, although a significant proportion of ditch length was dry or only had very shallow water, bearing in mind that 2012 was a very wet season.

The main ditch, which runs along the western boundary of the site before turning east towards South Benfleet High Street, is to some extent tidal as far as Brook Road and here the narrow channel and daily fluctuating water level is unlikely to attract Water Voles. Further upstream, there is a significant amount of Common Reed, which should be suitable, but within which no signs of activity could be found.

### Conclusion

The habitats present are not of sufficient quality to satisfy any of the selection criteria, the extent and character of the reed not meeting the UK BAP Reedbed habitat description. No

evidence of a significant Water Vole population could be found and there are no other species present that could trigger selection.



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## **PLoWS7 Eastwood Old Road TQ 822891**

### Previous Description

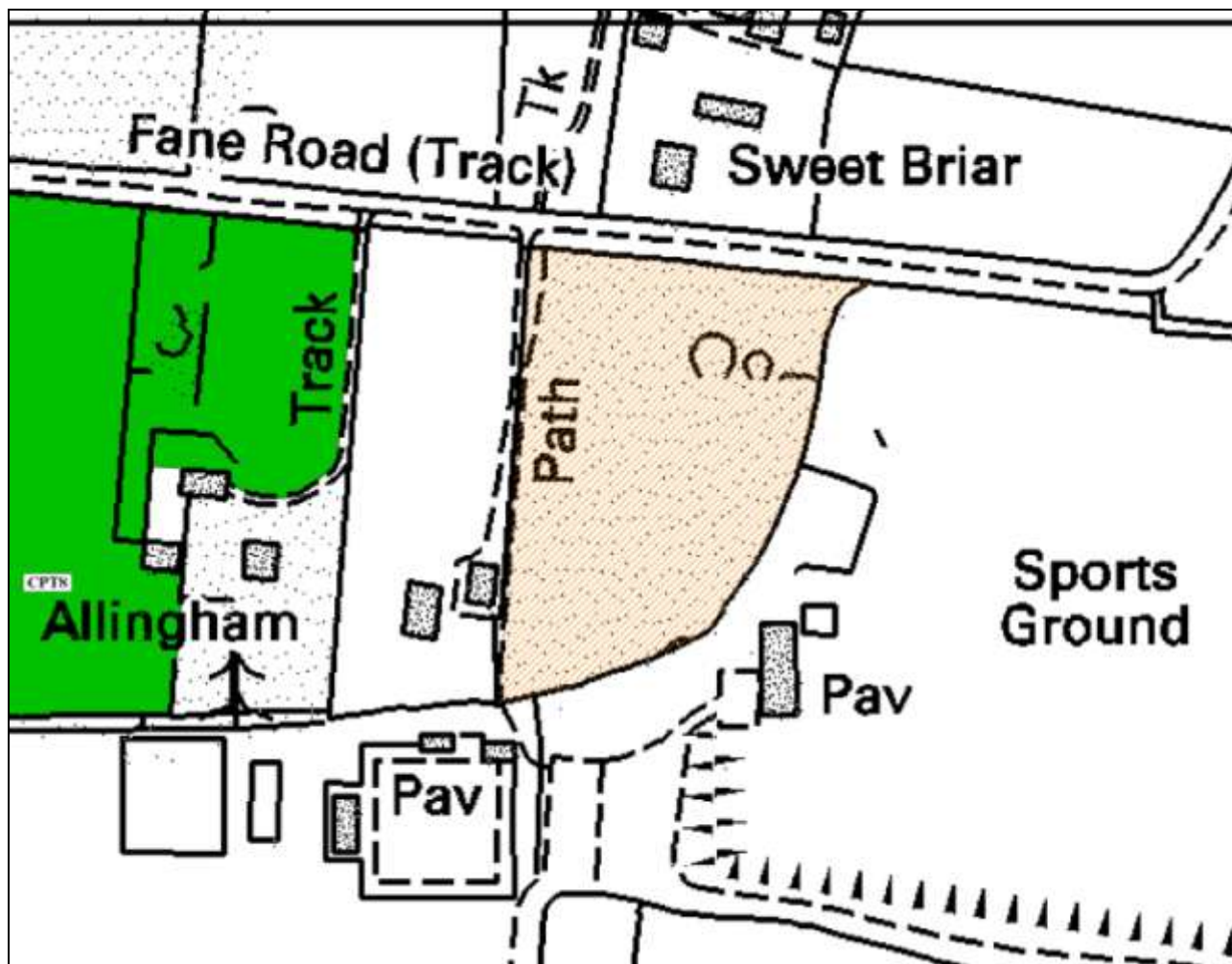
This area of ancient hedgerow and associated secondary wood has been deleted from the LoWS register but has the potential to regain its status with appropriate management. It has suffered damaged and degradation by encroachment from adjacent properties and the dumping of material.

### Current Assessment

The damage and degradation of the area that was noted previously has continued, such that only small areas of unaffected woodland habitat remain. Pedunculate Oak (*Quercus robur*), Hornbeam (*Carpinus betulus*) and Ash (*Fraxinus excelsior*) make up the canopy with Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Field Maple (*Acer campestre*). Wood Melick (*Melica uniflora*), Dog's Mercury (*Mercurialis perennis*) and Pendulous Sedge (*Carex pendula*) are included in the ground flora.

### Conclusion

The extent of unspoilt habitat is too little for any criterion to be satisfied and the situation is unlikely to improve, but see PLoWS11 in Annex 3.



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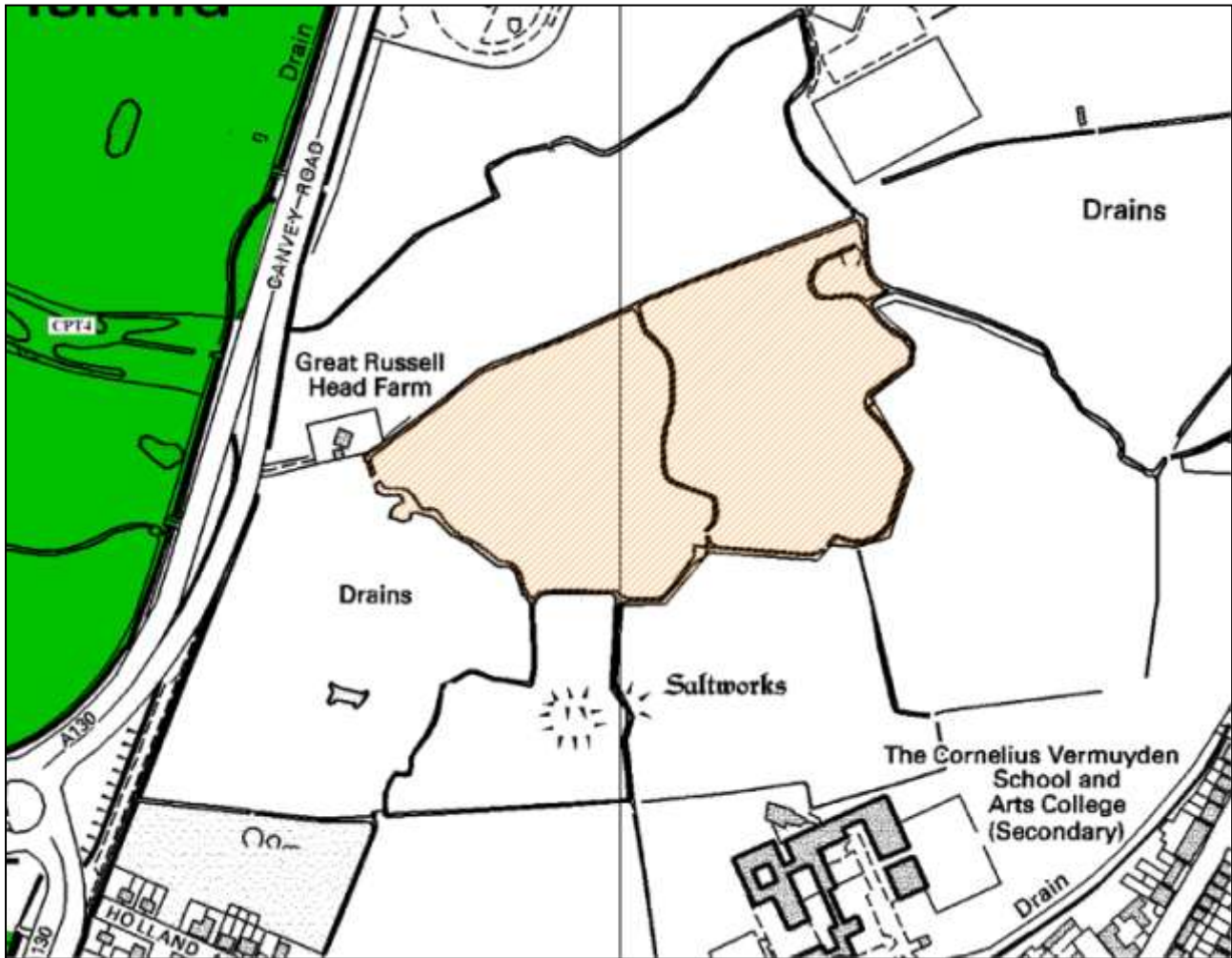
## Fane Road Wood TQ777898

### Current Assessment

This site was suggested by a member of the Castle Point Wildlife Group. It comprises young Pedunculate Oak (*Quercus robur*) and Hawthorn (*Crataegus monogyna*) woodland with a poor ground flora that does include Wood False-brome (*Brachypodium sylvaticum*).

### Conclusion

It is typical of recent secondary woodland in plotland areas and does not satisfy any of the LoWS selection criteria in its present condition.



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## Great Russell Head Farm TQ780844

### Current Assessment

This site was proposed by a consultee representing Essex Field Club on the strength of its habitat type and potential to support significant invertebrate species. It comprises former coastal grazing marsh with some of its original topography remaining.

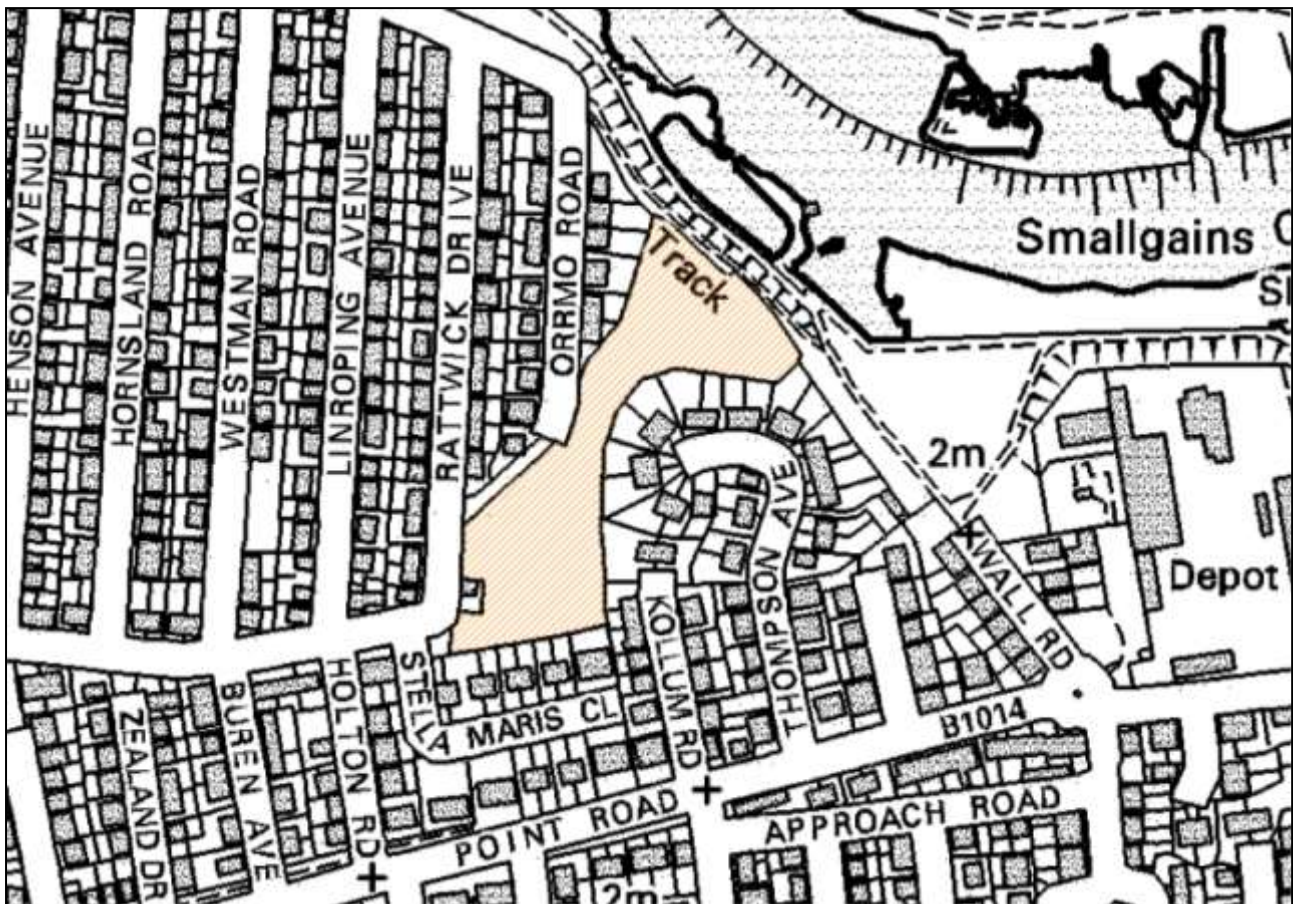
The vegetation in the eastern meadow consists primarily of rank grassland dominated by coarse species such as Common Couch (*Elytrigia repens*), Cock's-foot (*Dactylis glomerata*), False Oat-grass (*Arrhenatherum elatius*). There is scattered young Hawthorn (*Crataegus monogyna*) scrub and herbaceous species are scarce, with those present being tall ruderals: Hoary Ragwort (*Senecio erucifolius*), Bristly Ox-tongue (*Helminthotheca echioides*), Hawkweed Ox-tongue (*Picris hieracioides*) and Prickly Lettuce (*Lactuca serriola*).

The western meadow is similarly rank, although it had been cut earlier in the year. In the margins a greater diversity of grasses was apparent including Crested Dog's-tail (*Cynosurus cristatus*), Meadow Barley (*Hordeum secalinum*) and timothy (*Phleum* sp.). There were no herbaceous species within this meadow, even in the uncut margins.

The hedgerow field boundaries, mostly made up of Blackthorn (*Prunus spinosa*), are expanding into the grassland by suckering. The eastern meadow is bordered to the east by a ditch that contains patches of Common Reed (*Phragmites australis*), Sea Club-rush (*Bolboschoenus maritimus*) and Lesser Bulrush (*Typha angustifolia*) with a water crowfoot (*Ranunculus* sp.) and Fine-leaved Water-dropwort (*Oenanthe aquatica*). The ditch is the only feature of significance in the site.

### Conclusion

The physical characteristics of this site should make it of conservation significance, but the vegetation has been modified by agricultural practices, interspersed with neglect, to such an extent that the appropriate selection criterion, HC20 Coastal Grazing Marsh cannot be justified. None of the notable species associated with this habitat are present. The site does not contain habitat features that would suggest that a significant invertebrate assemblage is likely, with a lack of plant and flower diversity in particular.



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## Croppenburg Pumping Station TQ816833

### Current Assessment

This site has been proposed by an employee of Environment Agency, who own and operate the site. It comprises a section of old tidal creek, now isolated from the estuary by the sea wall.

The site is generally low-lying although sections at the northern and southern ends have been raised. The habitat comprises rough grassland with a series of shallow, apparently brackish, pools in the central section. The grassland was seeded in 2005 and includes Common Knapweed (*Centaurea nigra* agg.), Lady's Bedstraw (*Galium verum*), Crested Dog's-tail (*Cynosurus cristatus*) and Quaking-grass (*Briza media*).

Around the margins of the brackish pools are plant species typical of saltmarsh including Sea Aster (*Aster tripolium*), Common Saltmarsh-grass (*Puccinellia maritima*) and Lesser Sea-spurrey (*Spergularia media*) with Sea Club-rush (*Bolboschoenus maritimus*).

There is a large Badger sett on site and a range of common invertebrates has been recorded. Workers of the Brown-banded Carder Bumblebee (*Bombus humilis*) have been recorded.

### Conclusion

Although an interesting site, neither the habitat, nor the species recorded thus far, satisfy any of the LoWS selection criteria sufficiently to justify selection. The seeding of the

grassland has created a foraging resource, but the resultant habitat is not reflective of local conditions.

## **ANNEX 5**

### **Potential Development Sites**

## **INTRODUCTION**

The information within this annex is intended to act as a guide for planners and developers in considering the scope and level of ecological survey information that might be expected to accompany an application for planning consent in the areas within the Borough that have previously been proposed for development. The information provided should not be considered exhaustive or definitive, with the emphasis being on the involvement of suitably qualified and experienced ecologists in the earliest stages of any proposal.

### **Preliminary Ecological Appraisal**

In each area it is recommended that a Preliminary Ecological Appraisal (PEA) be the starting point of ecological survey work, as has become established as standard practice within the ecological consultancy industry, sometimes referred to as an “extended Phase 1 survey”. Best practice guidance on the contents of a PEA is available from the Institute of Ecology and Environmental Management (IEEM)<sup>2</sup>. It is important that existing ecological features of value are used to inform the development of site master plans, rather than mitigation being focused on whatever land happens to be left once the engineering has been completed.

### **Data search**

PEA reports should include existing biological records for the site and its surroundings, obtained from the Local Records Centre or equivalent bodies. Freely available national datasets, such as NBN and Magic, should not be used instead of local data sources, but can be a valuable additional source of information.

### **Species surveys**

Any species surveys highlighted as being necessary within a PEA should be carried out prior to the submission of an application for planning consent, as required by national planning policy guidance. All surveys should conform to published guidance or best practice documents, with any deviations fully justified.

### **Compensation and Enhancement**

Any ecological impacts identified as part of a development should be avoided if possible by sympathetic planning and design. If this is not possible then the impacts should be mitigated with habitat creation or enhancement within the site. Only if neither of these can be achieved, should the impacts be compensated by translocation of species to another site or by remote habitat enhancement or creation.

It is suggested that the Living Landscape concept provides a sound basis for guiding all design, mitigation and compensation measures arising from a proposed development. The emphasis, in line with the National Planning Policy Framework, should be on maintaining local ecological networks, which can be achieved by protecting key ecological sites (LoWS) and by improving connectivity between them.

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<sup>2</sup> IEEM Technical Guidance Series – Guidelines for Preliminary Ecological Appraisal



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## 2012/7 Solby Wood Farm TQ810884

### Site Description

This area lies within the Hadleigh and Daws Heath Complex Living Landscape Area and is very close to CPT26 Cottage Plantation and Rag Wood, which lies to the northwest. It is largely made up of farm buildings and hard standing associated with Solby Wood Farm with horse-grazed pastures at the western end. The hedgerows bordering the site are strong, particularly that to the north, which separates the area from existing residential properties on Wyburn Road. Part of the site is used for caravan storage and there are two ménages.

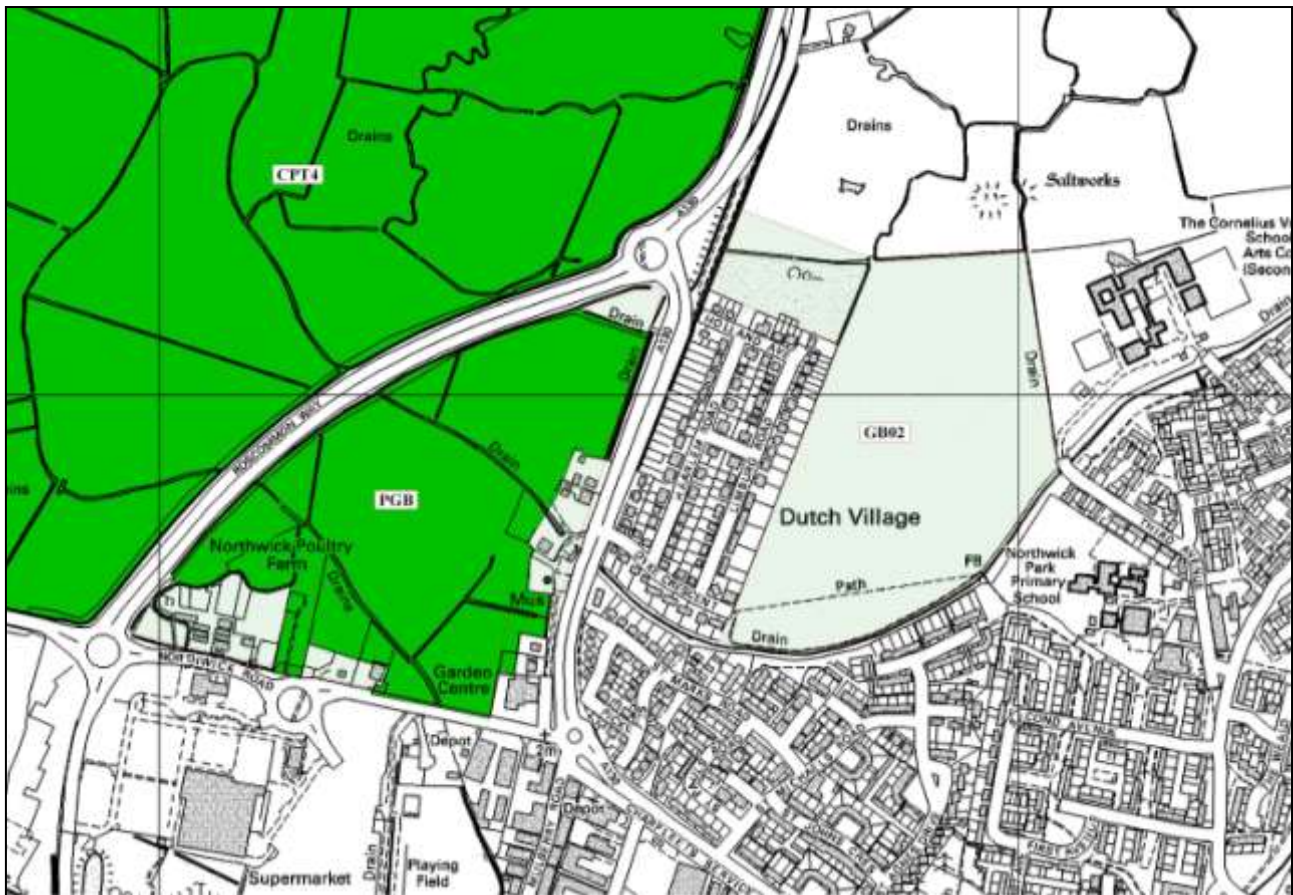
### Recommended Ecological Survey Requirements

- A PEA should be required for this site to inform the need for surveys of the species mentioned below;
- The farm buildings are apparently all modern, and are likely to hold few opportunities for roosting bats, but the PEA should include an assessment of their potential;
- There is a large pond within the farm, to the south of the area highlighted, which should be surveyed for Great Crested Newts;

### Enhancement and Compensation Opportunities

As the site lies within a Living Landscape Area, all mitigation and enhancement should be informed by the Vision Document that has been prepared to strategically guide conservation activity. It would be hoped that the hedgerows could be retained within any

proposed development and this will maintain ecological connectivity through the landscape.



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## GB02 Dutch Village, Canvey Island TQ778839

### Site Description

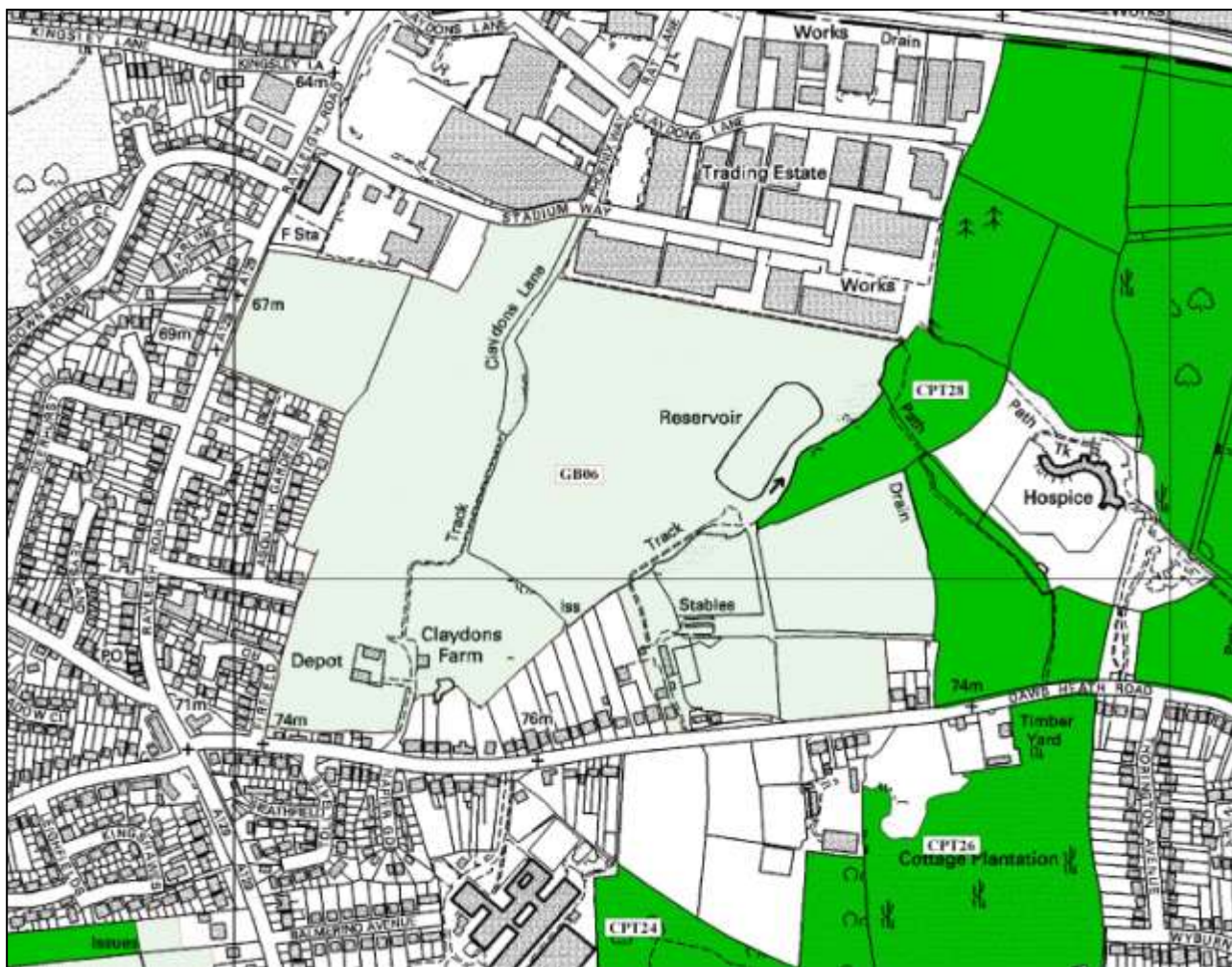
This area lies to the east of the A130 on Canvey Island and consists of former coastal grazing marsh that has been heavily modified by agricultural management. The CPT4 West Canvey Marshes LoWS and the Wat Tyler Complex Living Landscape Area lie close to the area across the A130. It is well used by the local community, an area to the south being frequently mown and formally managed as open space. The northern half of the main field consists of species poor rough grassland dominated by Cock's-foot, False Oat-grass and Common Couch with few herbaceous species and generally low diversity, suggesting that it has been agriculturally improved. In the northwest corner of the area is a small field that has developed dense Hawthorn and Blackthorn scrub, with a fragment of another field of rough grassland to the north.

### Recommended Ecological Survey Requirements

- A PEA should be required for this site to inform the need for surveys of the species mentioned below;
- The habitat is highly suitable for reptiles and so a reptile survey would be expected to accompany any application;
- The scrub is suitable for nesting birds, which should be protected by the timing of clearance works.

### Enhancement and Compensation Opportunities

If reptiles are present and need to be translocated away from the site, then there is an opportunity to improve the management of the grassland to the north to increase its capacity to support reptiles while enhancing its overall value for wildlife.



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## GB06 Claydons Farm, Daws Heath TQ803891

### Site Description

This area is within the Hadleigh and Daws Heath Complex Living Landscapes Area and is adjacent to the Essex Wildlife Trust's Little Haven Nature Reserve that forms the basis of CPT28 Little Haven / Tile Wood Complex. It comprises a series of fields dominated by rough grass species such as Cock's-foot, False Oat-grass and Yorkshire Fog with scattered tall ruderals including Hogweed, Creeping Thistle, Hawkweed Ox-tongue and Common Ragwort. To the southeast are several improved and/or species poor horse-grazed pastures and on the western edge, adjacent to the A129, is a smaller field of rough grass with scattered young scrub growth. The presence of abundant Male Fern in this field suggests a more varied history.

At the northern end of the site, adjacent to Stadium Way, there is a broad band of scrub Oaks and willows, with occasional Apple, Ash, Field Maple and Hawthorn. At this end of the site Bracken is also present, including a stand within the grassland.

Claydons Lane crosses the area from north to south and for much of its length takes the form of an overgrown green lane. The canopy consists of Oak and Ash with an understory of Holly, Hawthorn, and Blackthorn with coppiced Hornbeam, Hazel, and Field Maple.

There is also a very large Ash coppice stool and, in places, suckering Elm. The ground flora is unremarkable apart from the presence of Butcher's Broom.

There are some strong hedgerows in the north western part of the area, including Claydons Lane but the area is generally open. In the hedge to the northeast of Asquith Gardens is a group of large Sessile Oaks.

In the northeast corner of the site is a managed fishing lake, with an adjacent car park. The area also includes the farm buildings associated with Claydons Farm.

### **Recommended Ecological Survey Requirements**

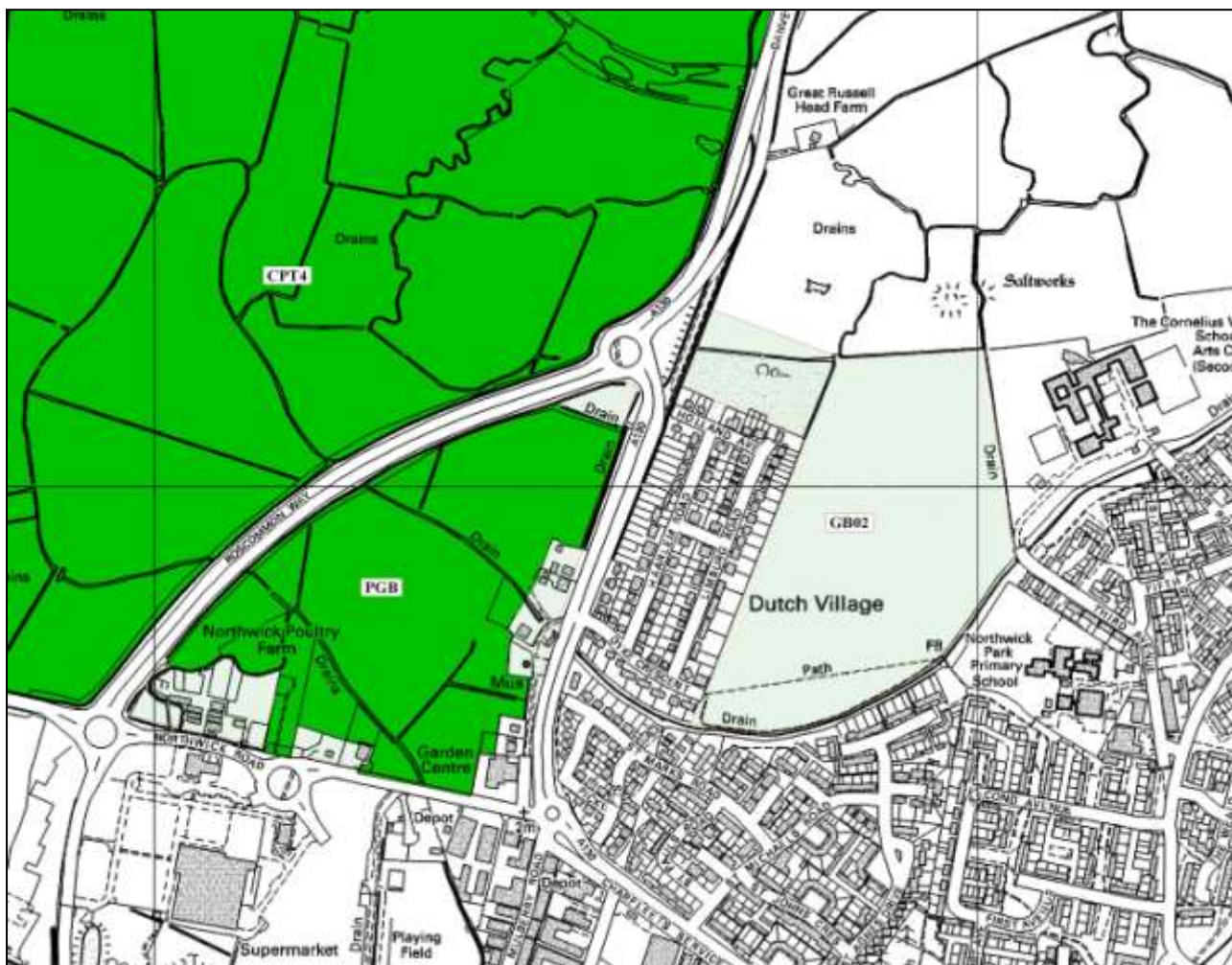
- A PEA should be required for this large site to inform the need for surveys of the species mentioned below and to accurately record. It should include an assessment of the impact of any development on the adjacent LoWS, as a result of the increase in use, and misuse, that is likely from a significant expansion in local population;
- A reptile survey should be carried out over the grassland areas, as the habitat is suitable and they are known to be present on the EWT nature reserve;
- The potential presence of Great Crested Newts in the fishing lake should be considered and there is another pond at Claydons Farm that should be surveyed;
- Trees and the buildings at Claydons Farm should be assessed for their potential to support roosting bats and emergence surveys carried out if appropriate.

### **Enhancement and Compensation Opportunities**

Master planning and all mitigation and compensation measures should be informed by the strategy for the Living Landscape, which is contained within a Vision Document.

Claydons Lane is clearly a very old feature and should be preserved and appropriately managed as a fundamental part of the green infrastructure of the area should it be developed. Other boundary features should also be preserved and strengthened to allow for the movement of wildlife across the site, linking the Little Haven Complex with the urban areas to the west and south.

A buffer of undeveloped land should be retained against the LoWS to reduce the impact of development.



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## **PGB Northwick Poultry Farm TQ773838**

### **Site Description**

Much of this area is within the CPT4 West Canvey Marshes LoWS, as it consists of remnant coastal grazing marsh that retains some of the topographical features and plant species characteristic of that UK BAP Priority Habitat. It is also within the Wat Tyler Complex Living Landscape Area. The Canvey Wick SSSI is a short distance to the southwest. The current management by grazing horses is not ideal, but does preserve the basic character of the habitat.

The areas not within the LoWS are around the edges and consist of houses, stables and other buildings, with some improved grassland.

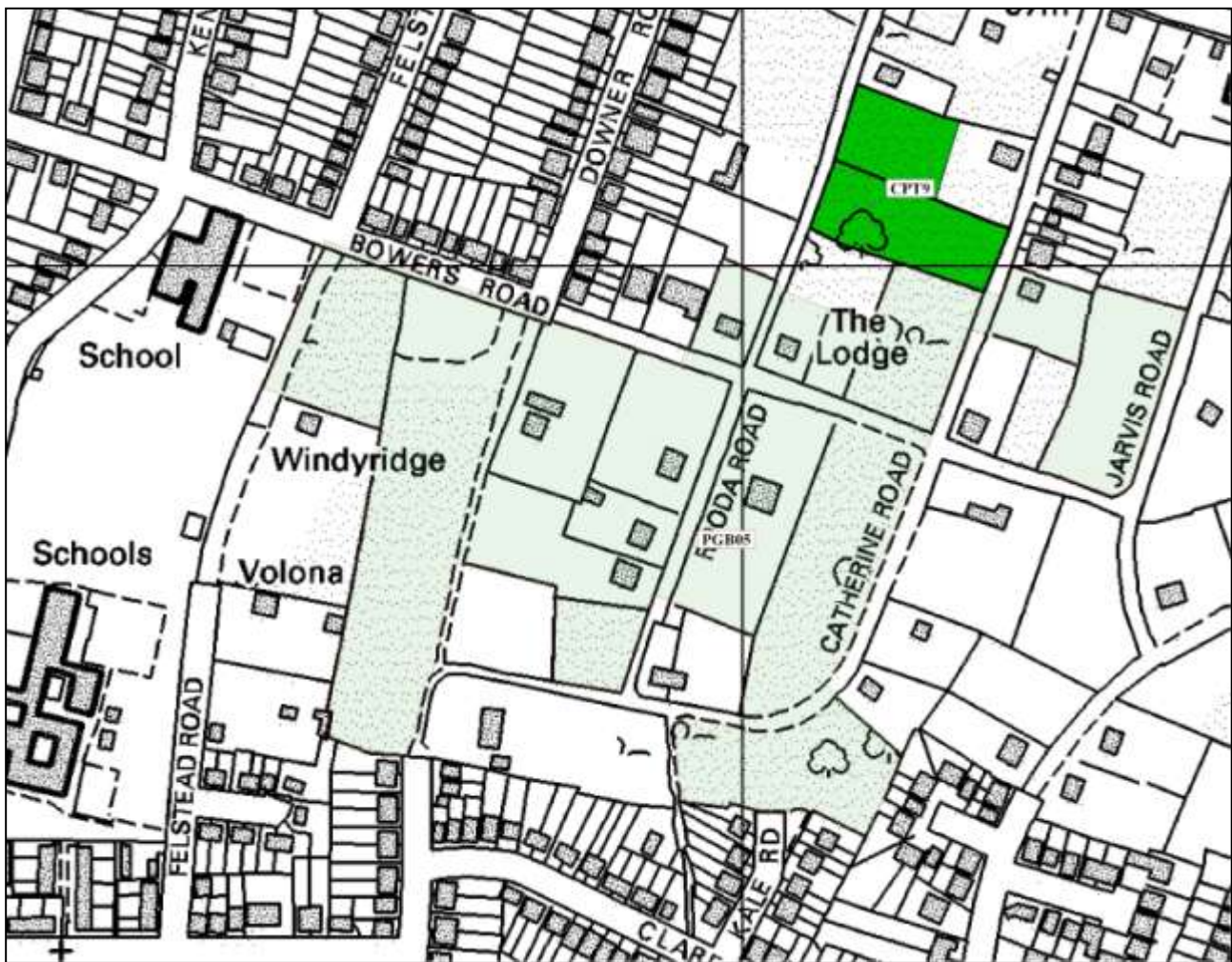
### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to inform the need for surveys of the species mentioned below;
- A full botanical survey should be carried out after a period without horse grazing, to enable the full diversity of species to be recorded. The survey should be carried out by somebody familiar with the characteristic species and communities of Coastal Grazing Marsh.
- Any wet ditches should be surveyed for Great Crested Newts;

- A reptile survey should be carried out;
- An invertebrate survey in accordance with Natural England guidelines should be completed, as it is likely that a range of rare and characteristic species is present.
- Buildings should be subjected to an assessment of their potential to support roosting bats, with emergence surveys if any potential exists.

### **Enhancement and Compensation Opportunities**

The LoWS part of this area should not be developed, as it is of proven importance to local ecological networks. The area does provide an opportunity for ecological enhancement, potentially as compensation for other development impacts. The condition of the grazing marsh would be improved by raising water levels in the ditches and by introducing better controls on grazing management. Should the granting of planning consent be unavoidable within the LoWS area then compensation should be specifically directed at enhancing other nearby areas of Coastal Grazing Marsh Habitat, with reference to the Living Landscape Vision Document.



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## **PGB05 Bowers Road Plotland TQ779879**

### **Site Description**

This area is made up of a typical complex of urban plotland habitats including houses – some with large gardens – scrub, woodland and meadows. CPT9 Kents Hill Wood, a surviving fragment of ancient woodland, is situated immediately to the north of the area between Rhoda Road and Catherine Road.

Many of the gardens have been established by clearing ancient woodland and contain large standard oaks and other trees. Less managed parts retain some ancient woodland indicator plant species within the ground flora. The remaining, older woodland is made up of small blocks of oak and Ash with invading Sycamore. Other woodland and scrub sections have re-established on plots that were once cleared, lacking larger standards and with a strong Hawthorn component.

There is a horse-grazed meadow within the area, to the south of Catherine Road, which appears to have been established from woodland, as it contains a number of larger trees and lacks diversity in its grassland plants. Just outside of the area are two more interesting meadows: to the north of the western end of Catherine Road, and to the west of the southern end of Jarvis Road.

### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to accurately map the habitats present and to inform the need for surveys of the species mentioned below;
- The area is known to support Badgers with at least one sett within the area, to the south of Bowers Road, and so a detailed survey of activity within and around any development site should be required;
- Buildings and trees should be assessed for their potential to support roosting bats, with emergence and activity surveys to determine the importance of the area to local bat populations. As a significant area of semi-natural habitat within a largely urban area, it is likely that it will be an important foraging area for bats roosting in surrounding houses.

### **Enhancement and Compensation Opportunities**

Any development within the area should seek to retain as many of the older woodland blocks and larger trees as possible to retain the overall wooded character of the area and to maintain connectivity with CPT10 Coombe Wood to the north and CPT11 Mount Road Wood, and the other LoWS beyond, to the east.

Improved management of the nearby LoWS could be another ambition of any compensation package.



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## **PGB08 Glyders meadow TQ784860**

### **Site Description**

This small meadow on a steep northerly slope has been recognised as a Potential LoWS (PLOWs9) because of its agriculturally unimproved character, good plant species diversity and the presence of some interesting invertebrate species. It lies on the edge of the Hadleigh Castle and Marshes Living Landscape Area, with the Benfleet and Southend Marshes SSSI immediately to the south. Its management is not favourable at present, with excessive scrub and dominant coarse grass species, which is why it failed to meet LoWS selection criteria.

### **Recommended Ecological Survey Requirements**

- A PEA should be required to consider the value of the site and the impact of any proposed development;
- The habitat is suitable for reptiles and so a full survey should be undertaken;
- A botanical survey should be carried out;
- An invertebrate survey may be appropriate, focussing on the presence of UK BAP Priority Species such as the fly *Dorycera gramineum*, and the Brown-banded Carder and Shril Carder bumblebees.

### **Enhancement and Compensation Opportunities**

The management of this meadow could be improved to the extent that it meets LoWS selection criteria, which makes it suitable as a compensation site for other nearby developments. This site, with the improved grassland to the east, has the potential to link CPT12 Vicarage Hill LoWS and the Benfleet and Southend Marshes SSSI.





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## **PGB09 Thundersley Plotland TQ795883**

### **Site Description**

Much of this area coincides with the CPT23 Thundersley Plotland and CPT16 Chase Paddocks LoWS, and it is made up of an extensive area of semi-natural plotland blocks and pastures within an urban setting. It consists of a mosaic of woodland, scrub, grassland, houses, gardens and playing fields with some old hedgerows and isolated large trees. The boundary of the Hadleigh and Daws Heath Complex Living Landscape Area lies to the east of the A129.

Chase Paddocks is made up of three large horse-grazed paddocks, with other meadows – grazed or otherwise – of varying size and quality within and around the plotland LoWS. Some of the meadows and larger gardens have been established from woodland and contain large oaks. The remaining woodland and scrub is of varied age and character, and is known to support some plant species of ecological value.

For more information see the LoWS descriptions.

### **Recommended Ecological Survey Requirements**

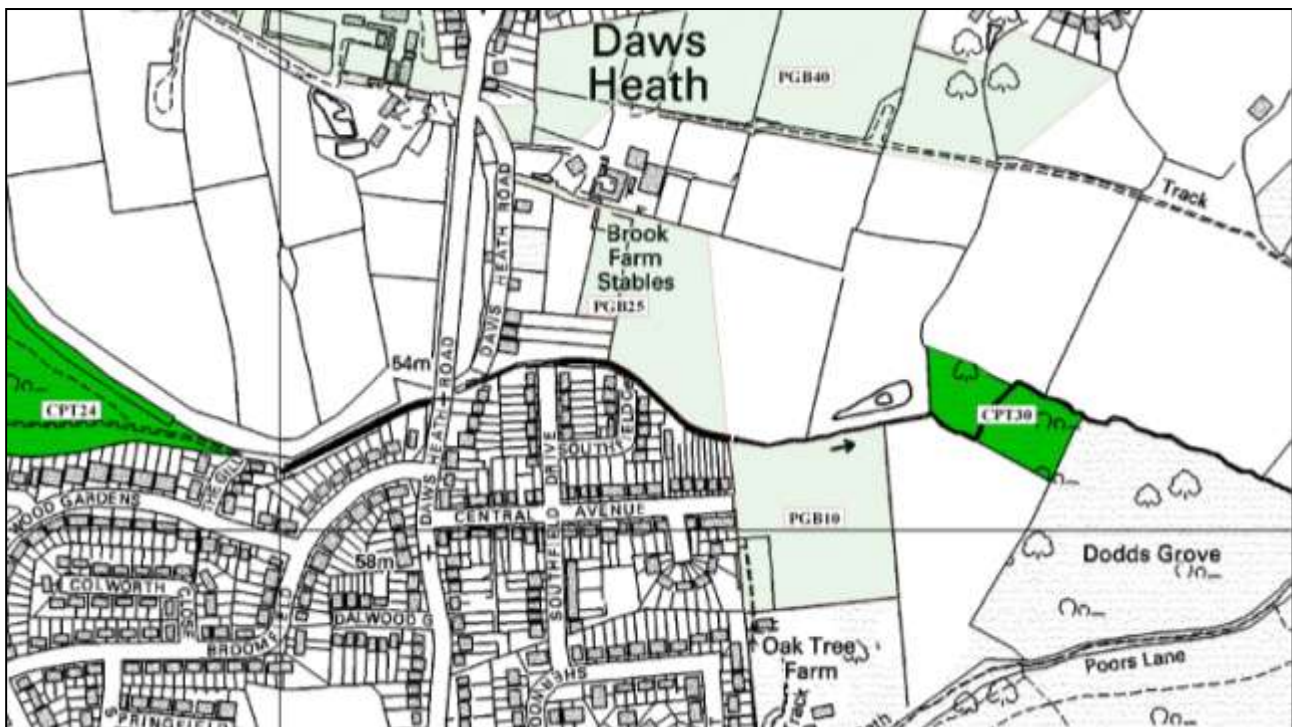
- A PEA should be required for this complex site to inform the need for surveys of the species mentioned below;

- Badgers are known to be present within the area and so a comprehensive survey of activity should be expected with any application;
- Buildings and trees should be assessed for their potential to support roosting bats, with emergence and activity surveys if potential is found. As a significant area of semi-natural habitat within a largely urban area, it is likely that it will be an important foraging area for bats roosting in surrounding houses;
- Reptiles are known to be present in the area and so all blocks of suitable habitat should be fully surveyed for presence or absence and to estimate population sizes.

### **Enhancement and Compensation Opportunities**

Development should not be permitted within the LoWS parts of the site, as it has been recognised as an important component of the local ecological network, but should any application be submitted then it should be accompanied by a master plan based around a strong green infrastructure network that preserves key ecological features and allows continued ecological connectivity within the site and beyond it.

Compensation for any adverse ecological impacts should be focussed on securing the future of any remaining semi-natural habitats of ecological value and enhancing their management. Any off-site compensation should be directed at the Hadleigh and Daws Heath Living Landscape Area



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## **PGB10 Oak Tree Farm TQ814800**

### **Site Description**

This site lies within the Hadleigh and Daws Heath Complex Living Landscape Area, and the Dodds Grove and Great Wood Hadleigh SSSI, and CPT30 Coxall Wood LoWS lie a short distance to the east along the Prittle Brook.

This area consists of a single large field of species poor rough grassland that is assumed to have been agriculturally improved. The grassland is of no particular ecological value. It is bordered by large hedgerows with Prittle Brook along its northern edge.

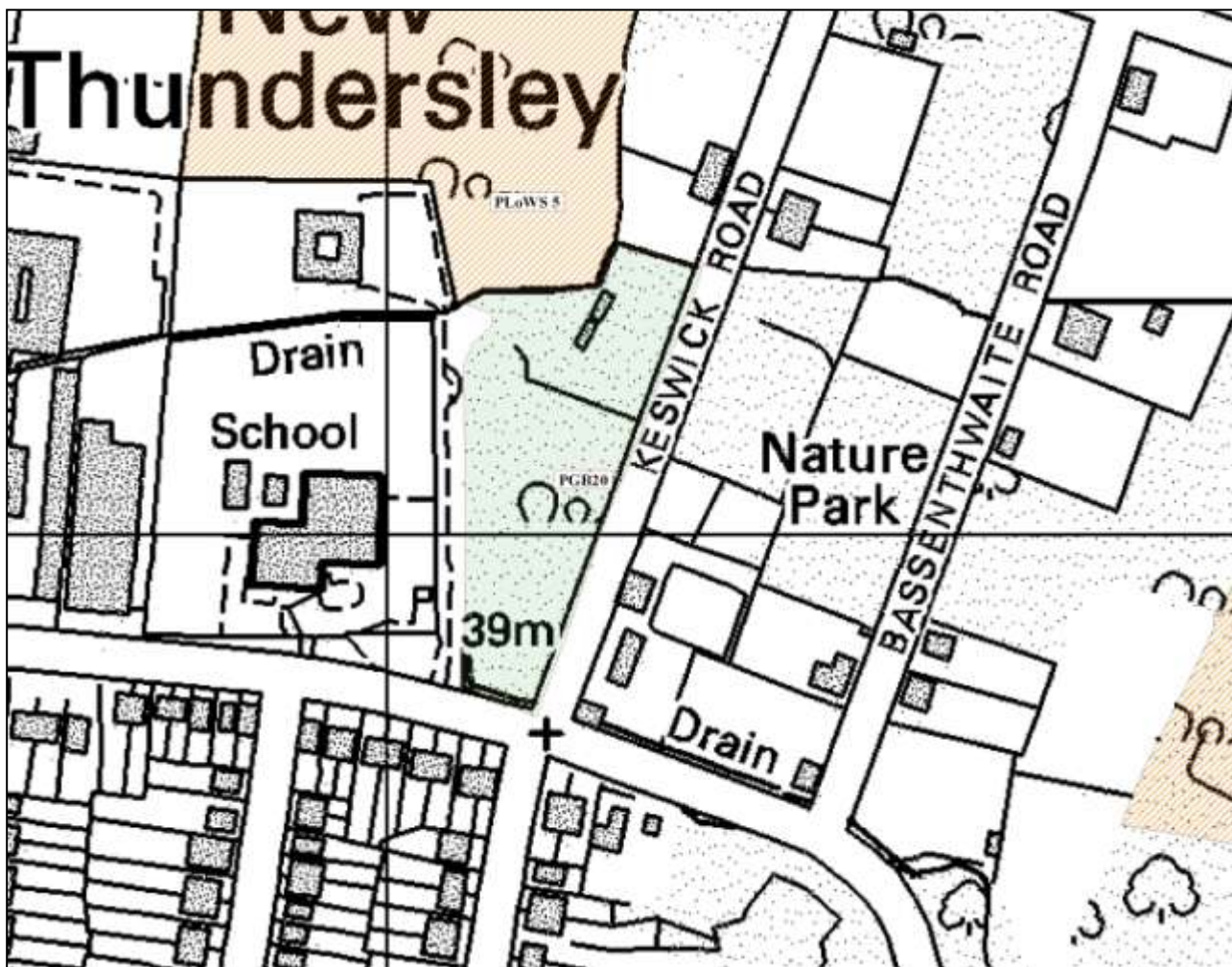
### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to fully assess the ecological value of the site within the local context;
- Dormice are present in Dodds Grove, which is connected by good hedgerow habitat to the site's boundary features. A nest tube survey of the hedgerows should be carried out prior to application;
- The grassland habitat is suitable for reptiles and so any application should be accompanied by a full survey to determine their presence or absence and to estimate population sizes.

### **Enhancement and Compensation Opportunities**

The hedgerow boundaries of the site offer significant ecological connectivity within the landscape and should be preserved, with appropriate buffers, within any proposed development. Prittle Brook in particular, flowing along the northern boundary of this area, is a potentially strong ecological corridor through this Living Landscape.

Any compensation or enhancement should be considered in relation to the Living Landscape Vision Document, but the field to the east of this site could be planted as woodland to buffer the SSSI and better link it to Coxall Wood.



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## **PGB20 Land off Keswick Road TQ780890**

### **Site Description**

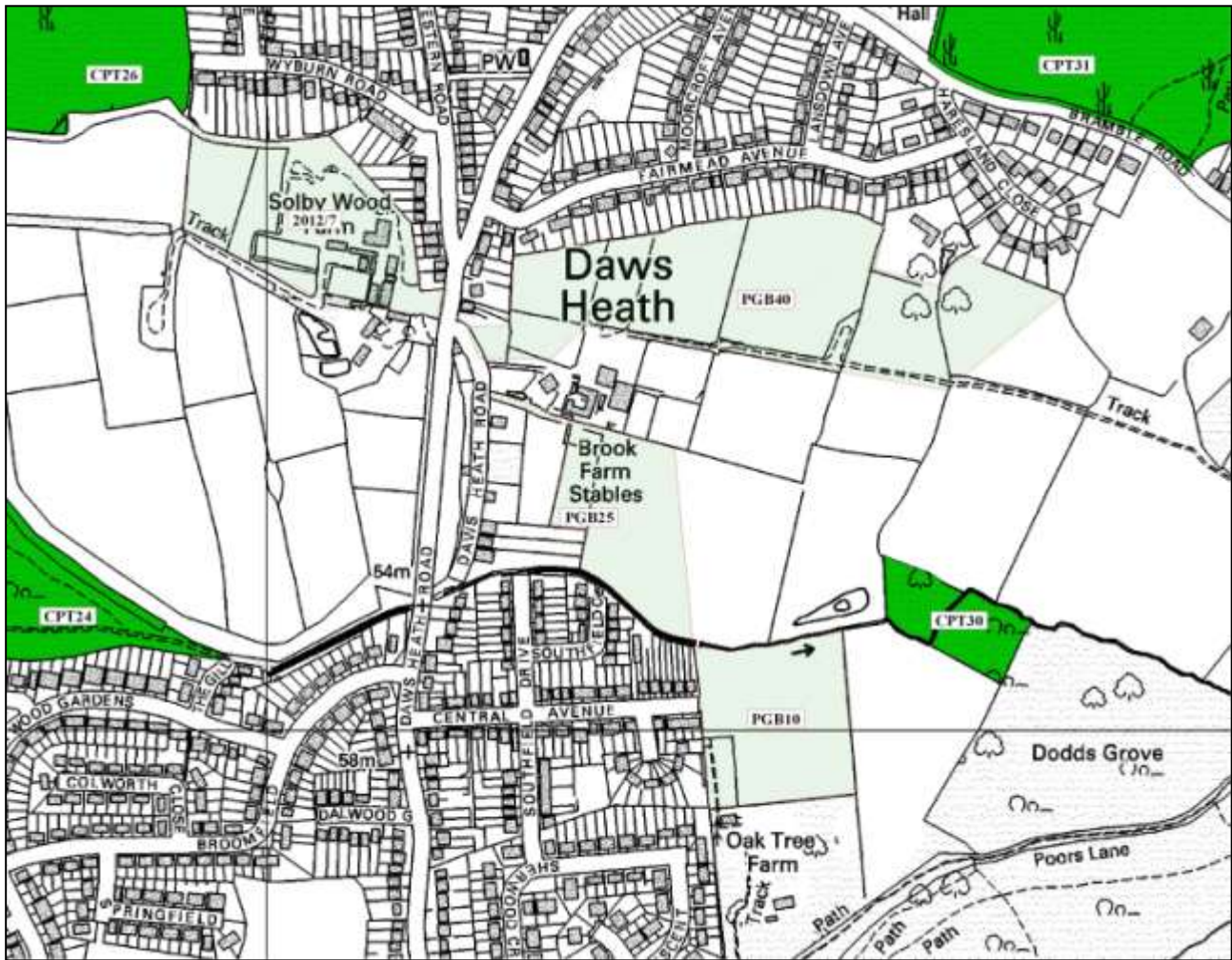
This site lies to the south of PLoWS 5 Manor Trading Estate. At the time it was surveyed, the site had already been cleared of much of its vegetation with just a few young trees remaining.

### **Recommended Ecological Survey Requirements**

- A PEA should be required to check the condition of the site and determine the need for any species surveys.

### **Enhancement and Compensation Opportunities**

This is a small, relatively isolated site with little potential for enhancement should it be developed and little strategic potential in terms of ecological networks. A site design that retains as many of the trees as possible should be encouraged.



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## **PGB25 Brook Farm Stables South TQ813882**

### **Site Description**

This area lies within the Hadleigh and Daws Heath Complex Living Landscape Area and consists of a small meadow with part of a larger one to the east. Both have been horse-grazed in the past, but only part of the larger contained horses at the time of the survey. It appears that a pipeline has been installed across the southern edge of the area, leading to a disturbed sward that currently contains a high proportion of Bristly Ox-tongue.

The ungrazed small meadow is generally species poor, although with an indication of being unimproved agriculturally to some degree, with Grass Vetchling, Common Centaury and Common Knapweed all present. A large poplar on its western boundary has the potential to support roosting bats.

The larger field is species poor, but is bordered to the south by Prittle Brook, with strong hedgerow/tree growth along it.

### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to check the condition and ecological value of the site and determine the need for any species surveys including those mentioned below;

- Dormice are present in Dodd's Grove, which is connected by good hedgerow habitat to the site's boundary features. A nest tube survey of the hedgerows should be carried out prior to application;
- The grassland habitat is suitable for reptiles and so any application should be accompanied by a full survey to determine their presence or absence and to estimate population sizes;
- There is a pond northwest of the area, adjacent to Daws Heath Road, which should be surveyed for Great Crested Newts, following Natural England guidelines;
- The poplar tree in the western boundary hedge should be assessed for its potential to support roosting bats and emergence surveys carried out if appropriate.

### **Enhancement and Compensation Opportunities**

Prittle Brook, flowing along the southern boundary of this area, is a potentially strong ecological corridor through this Living Landscape, and should be protected and enhanced as part of any proposed development.



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## **PGB30(A) Jotmans Farm North TQ763880**

### **Site Description**

This area comprises two fields adjacent to the A130 immediately south of the Sadlers Farm roundabout. The northern field is rough grassland that has been overtaken by a wide variety of scrub and tree species, which are dense in places. More open areas contain rough grassland, generally dominated by coarse species, but with some apparently more diverse communities where the sward is more open. There is a pond close to the main access point. The area appears to be well used by the local community with evidence of home-made cycle jumps and other informal recreational activities. This field is likely to be of considerable value to wildlife in a local context, although there is no evidence that it satisfies any of the LoWS selection criteria.

The southern field is managed for silage/hay and consists of rough grassland, which supports a range of typical grass species, but few flowering plants. A Common Lizard was seen on the eastern margin of this field. The boundary hedges are strong.

To the west of the fields is the A130, which is on a raised embankment that is largely covered with planted trees. To the east of the northern field are allotments and to the east of the southern fields is a public open space.

### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to allow for a complete assessment of its ecological value and to guide the surveys of the species mentioned below;
- Open areas of the northern field and the margins of the southern field are suitable for reptiles and so any application should be accompanied by a full survey to determine their presence or absence and to estimate population sizes;
- The site should be surveyed for Badger activity;
- The scrub is suitable for nesting birds, which should be protected by the timing of clearance works.

### **Enhancement and Compensation Opportunities**

The corridor of the A130 already provides good connectivity for wildlife and that should be maintained and strengthened in any development proposals. The northern field could be managed to compensate for loss of local wildlife amenity from developments in nearby parts of the Borough.



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## **PGB30(B) Jotmans Farm South TQ763872**

### **Site Description**

This is a large area adjacent to the northern edge of the Wat Tyler Complex Living Landscape Area, which runs along the south side of the railway line. It is bordered by the A130 to the west, on an embankment with planted trees, and the railway to the south.

It comprises a series of pastures centred on the farm buildings of Jotmans Hall. Most of the fields are either horse-grazed or cut for hay/silage and lack herbaceous species as a result. Three small enclosures on the western edge of the site to the south of Jotmans Lane are more diverse with flowering species that indicate less intensive management.

There are trees around the farm buildings and some relatively weak internal hedges, but otherwise the area is generally open.

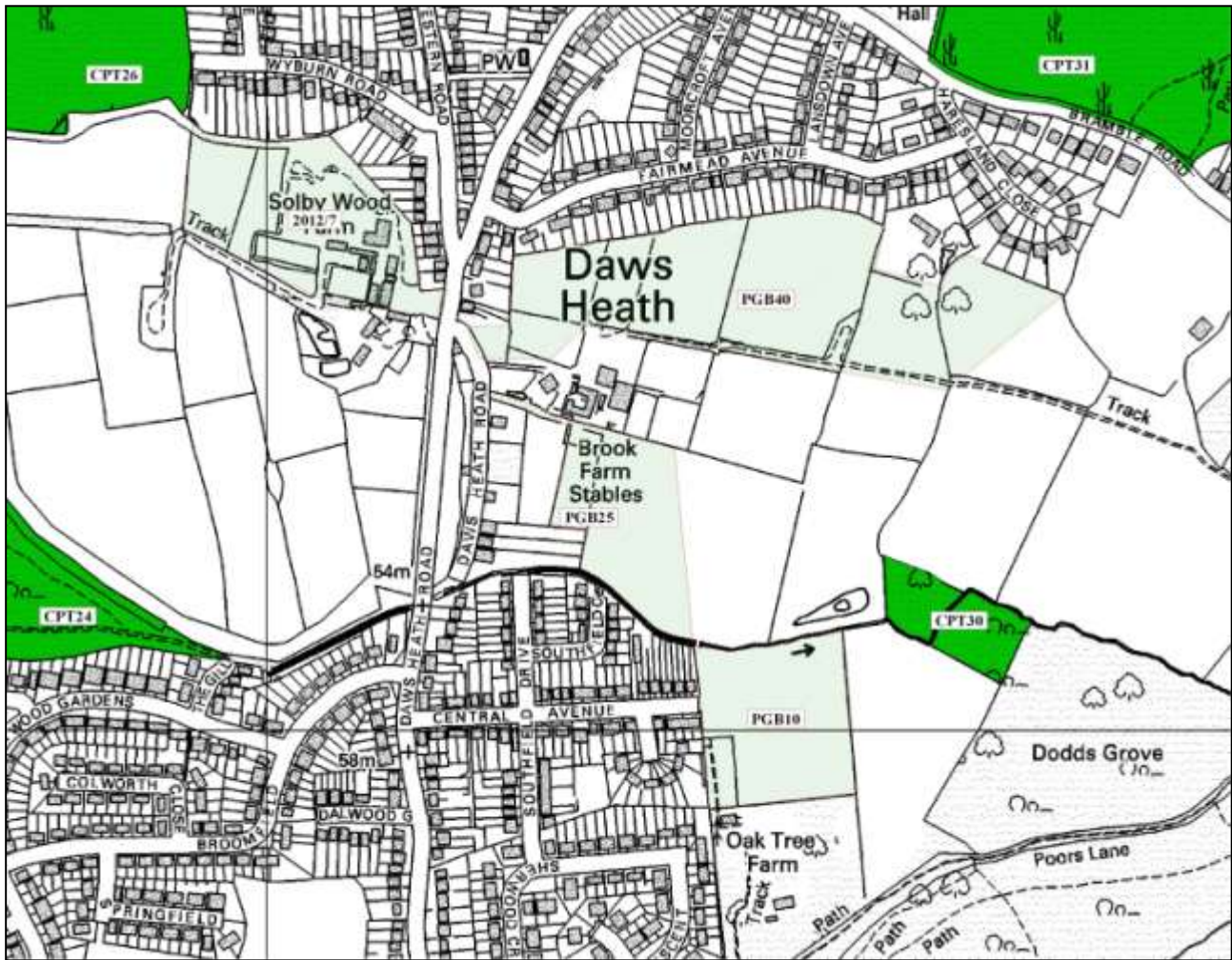
### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to assess the overall ecological value of the site, to identify key ecological features and to guide the need for surveys of species including those mentioned below;
- Most of the farm buildings appear to be modern and are likely to provide few opportunities for roosting bats, but they should all be assessed;

- Marginal and less intensively grazed grassland could support reptiles and so any application should be accompanied by a full survey to determine their presence or absence and to estimate population sizes;
- A dead Badger has recently been found immediately southeast of the site along the railway line and so a survey of their activity would be advisable.

### **Enhancement and Compensation Opportunities**

This is a large site and so there is potential to incorporate a significant greenspace infrastructure within any development proposal. The creation of flower-rich grassland would augment the habitats available nearby. There should be ample space to accommodate any reptile populations found within the area, by setting aside an area of grassland enhanced to provide for their requirements.



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## **PGB40 Brook Farm Stables North TQ814884**

### **Site Description**

This area lies within the Hadleigh and Daws Heath Complex Living Landscape Area and consists of a series of horse-grazed pastures and hay meadows divided up by hedges and lines of trees.

None of the fields appears to support grassland communities of any ecological value, although many were heavily grazed at the time of the survey. There is a strong network of hedges, especially in the eastern half of the area and these are directly connected to CPT30 Coxall Wood and the Dodds Grove and Great Wood Hadleigh SSSI beyond.

### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to assess the ecological value of the area in a local context and to inform the need for surveys of the species mentioned below;
- Dormice are present in Dodd's Grove, which is connected by good hedgerow habitat to the site's boundary features. A nest tube survey of the hedgerows should be carried out prior to application;

- The grassland habitat is suitable for reptiles and so any application should be accompanied by a full survey to determine their presence or absence and to estimate population sizes;
- Boundary trees should be assessed for their potential to support roosting bats;
- There is a pond immediately south of the area, adjacent to Daws Heath Road, and another to the north of the eastern end of the area, in what appears to be a private garden. Both of these ponds should be surveyed for Great Crested Newts, following Natural England guidelines.

**Enhancement and Compensation Opportunities**

The stronger hedgerows and tree lines on the site, which correspond to field boundaries of significant age, should be preserved and protected where possible, together with appropriate habitat buffers. Enhancement and compensation should be designed with reference to the Living Landscape Area Vision Document.



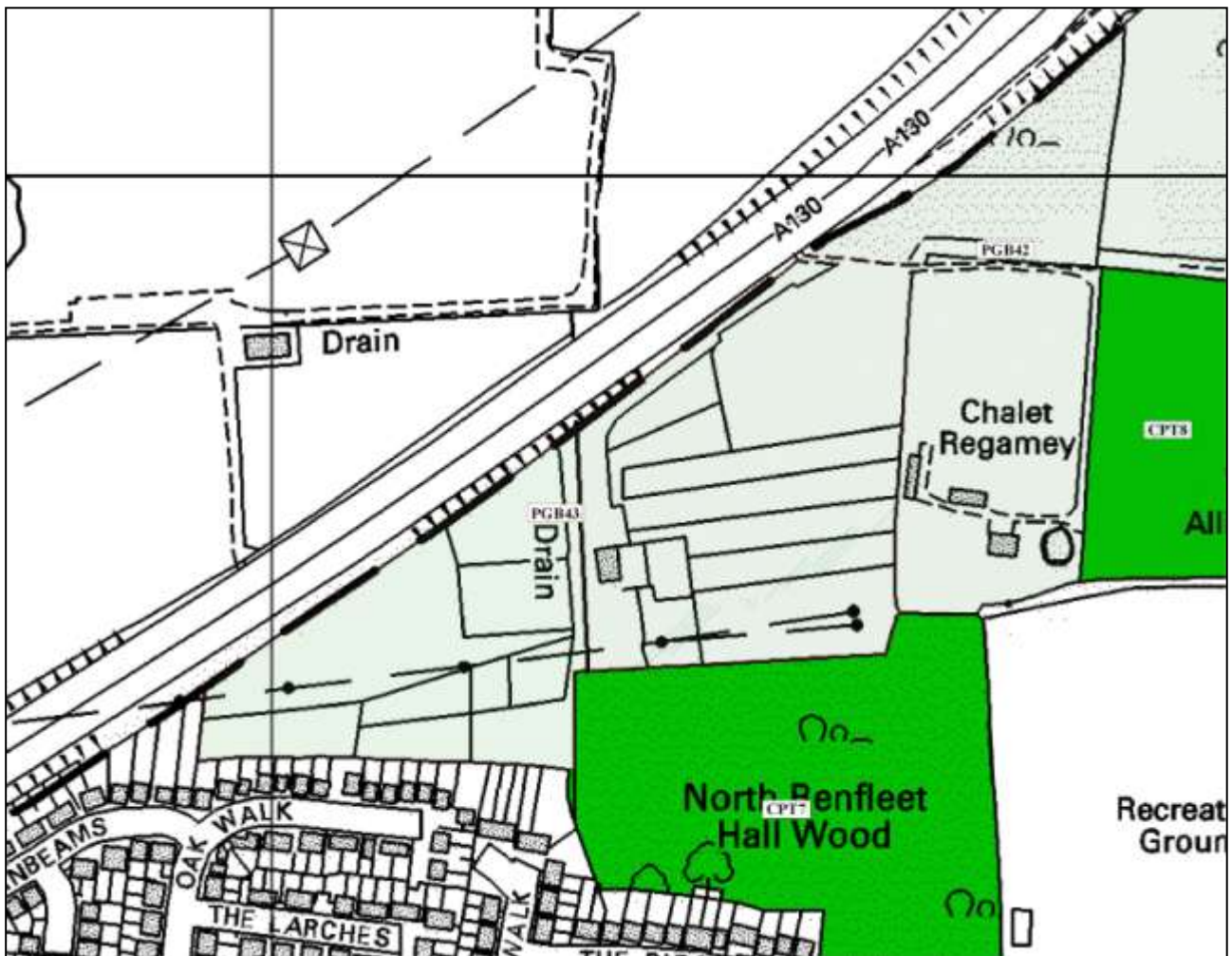
quality and adjacent meadows to east and west are of equivalent value, or may even be better, as they have not been as heavily grazed. However, despite satisfying LoWS selection criteria, they have become incorporated into gardens and so are not eligible for LoWS status. Other grasslands also show some of the commoner indicators of old, unimproved grassland, such as Common Knapweed, Meadow Vetchling, Glaucous Sedge, Sweet Vernal Grass, Meadow Barley and Narrow-leaved Bird's-foot Trefoil. These grasslands tend to be either neglected, with a dominance of coarse grasses and scrub incursion, or over-grazed with broken swards and low herbaceous abundance.

### **Recommended Ecological Survey Requirements**

- A PEA should be required for this area to fully survey and assess the character and the quality of the habitats present, with reference to LoWS selection criteria and species of county significance;
- As part of this appraisal, a full botanical survey should be required, to be undertaken at an appropriate time of the year and taking account of the short-term influence of intensive horse-grazing;
- There are ponds associated with "Chalet Regamey", "Sweet Briar", and opposite Copperfield Stables (just outside of the area) which should be the subject of a Great Crested Newt survey;
- Open habitats throughout the area are suitable for reptiles and so a comprehensive survey would be expected to accompany any application;
- Breeding bird habitat is present throughout, and the assemblage could be of significance in a local context, so an assessment of diversity and abundance should be expected;
- Trees and buildings should be assessed for their potential to support roosting bats, with emergence and activity surveys directed at those with suitable features. A wider assessment of foraging and commuting activity should also be carried out, as this is a large extent of predominantly semi-natural habitat;
- Badger activity should be surveyed to record the distribution of setts and important foraging areas;
- The character, diversity and extent of semi-natural habitats within the area are such that an invertebrate survey should be carried out, to be focussed on the presence of England BAP, UK Red Data Book, Nationally Scarce and Essex Red Data List species.

### **Enhancement and Compensation Opportunities**

Any application for this area should be accompanied by a detailed master plan demonstrating how the more valuable habitats and ecological features will be protected and enhanced, with functional ecological connectivity within and beyond the development boundaries. The LoWS on and adjacent to the area should be protected and buffers of semi-natural habitat incorporated around them. There should be sufficient habitat retained to allow for the majority of mitigation to be on-site, with species translocation to habitats outside of the area avoided. The existing corridor along the A130/A129 should be retained and strengthened.



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### **PGB43 Fane Road West TQ771897**

#### **Site Description**

This area lies immediately north of CPT7 North Benfleet Hall Wood, with the A130 as a boundary to the northwest. The eastern half overlaps with PGB42. It comprises a series of horse-grazed pastures and meadows managed for hay/silage some of which show a moderate diversity of flowering species, which indicates that they may not have been systematically improved agriculturally. Heavy grazing pressure makes it difficult to assess the ecological value of some of these pastures.

#### **Recommended Ecological Survey Requirements**

- A PEA should be required for this site to assess the character and the quality of the habitats present and to determine the need for species surveys;
- Some parts of the site are suitable for reptiles, which are believed to be present on the verge of the A130. Any application should be accompanied by a survey to determine the presence or absence of reptile species and to estimate their populations, if present;
- The buildings on site, and any trees affected, should be assessed for their potential to support roosting bats, with emergence and activity surveys if appropriate.

**Enhancement and Compensation Opportunities**

The adjoining LoWS should be protected and enhanced by creating a buffer of semi-natural habitat. The existing corridor along the A130/A129 should be retained and strengthened.