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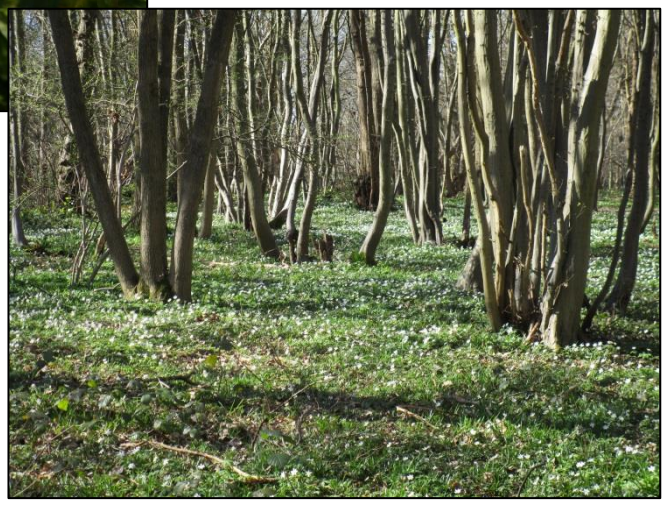

CHELMSFORD CITY COUNCIL

LOCAL WILDLIFE SITE REVIEW 2016

EECOS Essex Ecology Services Limited

Chelmsford City Council

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April 2016

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IMPORTANT NOTES

Nomenclature and Definitions

The very first report to identify a standardised suite of important wildlife sites within what was then Chelmsford Borough, produced in 1992, coined the term "Sites of Importance for Nature Conservation" (SINC). This was followed, in 2004, by a review of these sites under the term "Wildlife Site". The current, generally accepted term of "Local Wildlife Site" (LoWS) has now been adopted throughout Essex.

Where a building, other property or location is used in the name of a LoWS it is not being implied that ownership of that LoWS is associated with the property named. It is merely a descriptive use for ease of locating a piece of land that might have no publicly recognised name or other obvious geographical location. The Local Wildlife Sites Partnership for Essex would be pleased to receive details of more widely recognised names where they exist.

In the report, when a location is referred to as a Site (with a capital S) this is an abbreviation that means it is a Local Wildlife Site.

When 'Chelmsford' is referred to in this report, this means the whole of Chelmsford City Council's administrative area unless there is specific reference to the 'City' or 'Urban Area'.

Scope

The National Planning Policy Framework places a responsibility on all local planning authorities to protect and enhance their flora, fauna and wildlife habitats ("biodiversity") and also geological features and soils ("geodiversity"). This report only considers the former. Our appreciation of geodiversity and the requirements to conserve it are at a more elementary stage in Essex, with ongoing research into a series of LoGS (Local Geological/geomorphological Sites).

Rationale

It is hoped that this identification of Local Wildlife Sites is not seen as a hindrance to the livelihood of those landowners affected, or an attempt to blindly influence the management of such sites. It is an attempt to describe the wildlife resource we have in the county as a whole, which has been preserved thus far as a result of the management by landowners. The Essex Wildlife Trust and the Local and Unitary Authorities of Essex hope to be able to help landowners retain and enhance this biodiversity for the future. In recent years, the existence of a Local Wildlife Site on a farm has been seen as an advantage when applying for grant-aid from agri-environment schemes, with such grants favouring areas with a proven nature conservation interest.

Public Access

Identification as a Local Wildlife Site within this report does not confer any right of public access to the site, above and beyond any Public Rights of Way that may exist. The vast majority of the Sites are in private ownership and this should be respected at all times. Those few sites that are described as being appropriate for environmental education already have some level of public access. With the register of Sites, a simple statement of public access is given for each site so that the interested countryside walker might be able to view and enjoy the rich natural heritage of Chelmsford from recognised vantage points.

Land Ownership

It has always been the intention of the Essex Wildlife Trust to contact all landowners of LoWS, advising them of this identification and promoting nature conservation management of the site. To that end, the Essex Wildlife Trust has appointed a Local Wildlife Sites Officer to administer this suite of sites across the county. While this lengthy undertaking is in progress it is requested that the Essex Wildlife Trust is contacted prior to any formal approach regarding any Site identified within this report.

Boundaries

Whilst every attempt has been made to ensure accurate mapping of the site boundaries, the accompanying maps should be considered as being illustrative only. This is especially true for any SSSIs (Sites of Special Scientific Interest), which are included within LoWS site boundary maps to help interpret the context of LoWS in the wider countryside. Definitive SSSI boundaries are maintained by Natural England and can be viewed on the 'Magic' website (www.magic.gov.uk). The Essex Wildlife Trust's Local Wildlife Sites Officer should be consulted over the precise boundary of all Local Wildlife Sites, should any dispute occur or precise determination be required.

Planning

The information within this report should not be used as a bypass to the normal planning consultation process. It is inevitable that, with the passage of time, some Local Wildlife Sites will be lost or damaged to the extent that they are no longer considered as such. Similarly, new Sites may be identified and periodically added to the list for each Local Authority. For these reasons, the Essex Wildlife Trust still wishes to be consulted on all planning proposals affecting significant areas of open countryside, regardless of whether or not they apparently affect a Site detailed within this report. This report will allow a greater understanding of the wildlife resources of Chelmsford and will make the consultation process much faster and more cost-effective.

The National Planning Policy Framework (NPPF) makes clear that there should be a presumption in favour of sustainable development, with the caveat that all sites of significant nature conservation value should be afforded appropriate protection within the planning system. This might lead to an assumption that all land outside of LoWS designation is fit to be developed, with no nature conservation issues. This is most definitely not the case. Legally protected bat roosts, Great Crested Newt breeding ponds with associated terrestrial habitat and Badger setts are not routinely identified within the LoWS register for any Local Authority, yet they remain important material considerations that could be affected by planning proposals. Failure to consider these and other similar wildlife issues could result in an offence being committed by a developer if the ecological issues relating to a site are not properly explored prior to the submission of a planning application. It is recommended that no planning consent is granted without an appropriate ecological assessment accompanying the planning submission.

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CHELMSFORD CITY COUNCIL
LOCAL WILDLIFE SITES REVIEW 2016

1. INTRODUCTION

1.1 General Introduction

1.1.1 This report has been produced by Essex Ecology Services Ltd. (EECOS), the ecological consultancy of the Essex Wildlife Trust, on behalf of Chelmsford City Council. It comprises the results of a review of existing and potential Local Wildlife Sites (LoWS and PLoWS, respectively) intended to contribute to the Chelmsford Local Plan currently being developed. The Plan is being developed under guidance from the Council's over-arching Corporate Plan which aims, amongst other things, to provide high quality public spaces and to promote a more sustainable environment.

1.1.2 This report includes a register of all those sites henceforth considered to be Local Wildlife Sites (LoWS) within Chelmsford, some 171 in total, along with the identification of a few Potential LoWS for which there is either a lack of information upon which to base a reasonable judgement, or where there is a need to bring about reasonable improvements through active management before a site can be considered for selection.

1.1.3 The main purpose of this report is to provide a sound and robust evidence base to inform the Council's next Local Plan. This will provide the planning strategy for Chelmsford up to 2036. Public consultation on the new Local Plan started in November 2015. Subsequent stages of public consultation will follow before the new Local Plan is adopted. This is expected to be in 2018.

1.2 Background to Site Designation in Chelmsford

1.2.1 The very first survey report of this nature, produced by the Essex Naturalists' Trust in 1992, incorporated a basic land use survey with an exercise to identify the most important wildlife habitats present within Chelmsford. These important wildlife habitats were identified as "Sites of Importance for Nature Conservation" (SINC), with the results summarised in "Nature conservation – A Reference Guide" produced in individual district volumes.

1.2.2 In the intervening years these SINC sites have been referred to as County Wildlife Sites and, for a brief period, as Wildlife Sites, but in Essex the term Local Wildlife Sites has now been adopted and is used throughout this report to refer to sites of this designation, irrespective of the terminology that was used at the time. The original suite of SINCs within Chelmsford was

reviewed in 2004, with a new register of Sites produced in 2005, using the term "Wildlife Sites". Notwithstanding these name changes, it should be stressed that Local Wildlife Sites always have and should still be viewed as being of county importance, reflecting the natural variation in type and quality of woods, grasslands, water bodies, heaths and other habitats across the county. It should also be borne in mind that a few such sites might even attain national importance, even though they have not been designated as Sites of Special Scientific Interest (SSSI), the suite of which comprises only representative examples of land that has nationally significant nature conservation value.

1.2.3 There will remain, of course, many places that are of importance to wildlife at a more parochial level, that are not afforded LoWS status. These should still be given due consideration by a local authority when determining planning applications, with LoWS status not being a convenient short-cut to deciding whether or not a planning application has environmental impacts. Many local authorities already have policies which state that there will be a presumption against granting planning consent for applications which have an effect on LoWS, a need for which is emphasised within the National Planning Policy Framework (NPPF, published March 2012. See Section 3.5, below). However, there will be many other sites upon which development would have implications for wildlife and the environment and these sites will require a preliminary ecological assessment of some sort in order to determining the impact of a planning application. Some of these may be of sufficient merit to refuse planning consent. Wildlife implications on these sites may take the form of the presence of legally protected species (*e.g.* Badgers, bats, Water Voles and nesting birds), or small fragments of habitats that might, if larger or less ecologically isolated, have qualified for LoWS status. There may be other sites that meet the selection criteria that have not been assessed during this project, as they have not been brought to our attention. Developments immediately next to a LoWS might still have an impact on the ecology of the Site even if there is no direct loss of habitat.

1.3 Objectives of the Current Review

1.3.1 The principal objective of this review is to update the LoWS network within the Chelmsford City Administrative Area (hereafter referred to as 'Chelmsford') in the light of changes in available knowledge and by application of the current site selection criteria for Essex, published January 2010 and with minor terminology updates dated January 2016. This updated information can contribute to a robust evidence base as required of each local authority as part of its Local Plan. The selection criteria are provided as Annex Report 1.

1.3.2 It should be noted that the NPPF encourages local authorities to have regard to conserving both biodiversity and geodiversity. 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. Furthermore, the NPPF states that, in preparing their Local Plan, local planning authorities must ensure that adequate, up to date evidence has been used. The appropriate conservation of the LoWS identified within this report can be seen as a basic starting point in fulfilling biodiversity obligations, but this study does not consider geodiversity and the network of Local Geological/geomorphological Sites (LoGS) being identified by GeoEssex. Further information about sites of geological importance can be supplied by EECOS in association with GeoEssex.

1.4 Review Process and Methodology

1.4.1 The basis for this review has been a field survey conducted during 2015, in conjunction with a desk study and consultation exercise to identify potential new Sites and to validate or downgrade existing ones. All candidate LoWS were then assessed against the current selection criteria to determine whether or not they qualified for LoWS status. Species and habitats now afforded attention via the England Biodiversity Action Plan (which are also referred to as Species of Principal Importance in England (SPIE) and Habitats of Principal Importance in England (HPIE)) were specifically considered and their representation within the LoWS network ensured. The current LoWS selection criteria have been developed through reviews in other Essex districts and modified in line with national guidelines and following a wide consultation exercise. The selection criteria were published early in 2009, with minor amendments in January 2010 and January 2016, and have been used in this current review.

1.4.2 For some groups, such as invertebrates, the state of our knowledge concerning their distribution and ecological requirements is still quite limited, so that whilst criteria are now in place to select sites on the grounds of their invertebrate interest, the actual ability to do so is still at an early stage, particularly for the less well-studied groups. However, development of the various biodiversity initiatives across the county and the production of an Essex Red Data List of our most threatened flora and fauna have helped in focusing on the needs of these populations and identifying their key population localities. These data should continue to feed into subsequent LoWS reviews, improving the effectiveness of their nature conservation role.

Desk Study

1.4.3 The starting point for the focus of field survey work was the existing suite of LoWS, to determine whether or not they still satisfied the current selection criteria. Added to these were a number of potential sites that had been brought to the attention of EECOS or Essex Wildlife Trust staff since 2005. Reference was also made to aerial photography, most notably that available via the Google™ Earth web-site, to identify other areas of land of potential interest. This last tool is particularly useful for locating areas of semi-natural habitat not visible from public rights of way or other public vantage points that might otherwise have gone un-noticed or required much more labour-intensive field-by-field survey work to discover. Clarification of site boundaries, most notably ancient woods and hedgerow patterns, was assisted by reference to the First Edition 6" Ordnance Survey maps of the early 1880s accessed via the web-site www.old-maps.co.uk. Reference was also made to the 1777 Chapman and André map of Essex, although it is recognised that a good deal of interpretation and caution is needed for this very early map work.

1.4.4 Alongside this, a consultation process has sought comments from relevant local experts on the existing suite of Sites and also the draft suite of LoWS as this was developed. These comments have been incorporated as far as possible within the final list of LoWS, while maintaining the rigour of the published selection criteria. Some suggested sites, for which insufficient information is currently available, have been identified in this report as Potential Local Wildlife Sites (PLoWS) pending further survey work or improvements to the habitat conditions.

Field Survey Work

1.4.5 In order to facilitate site access as part of the field survey work, EECOS surveyors were issued with warrants of entry onto land under Section 324 of the Town and Country Planning Act 1990 (as amended). These warrants effectively gave rights of access at reasonable times of the day and week and by using reasonable routes and methods to land not otherwise accessible via the public rights of way network.

1.4.6 Notwithstanding this, there are clearly a number of scenarios when it would have been neither appropriate nor even legal to try and exercise such rights of access. Such situations include private residential gardens, sites subject to mines and quarries regulations, open landfill sites, railway land and the like, and all surveyors used their discretion in applying the general principle of gaining access to areas of open countryside for the purposes of this survey. Where possible, surveyors still attempted to make contact with the relevant landowners and EECOS

wishes to thank those people who have actively assisted this survey by verbally granting permission to enter onto their land.

1.4.7 Any areas of land adjudged to be of significant wildlife value were assessed in more detail, as conditions permitted, with a short description and plant species list compiled. Other species, such as bird life and insects, were also noted, if appropriate. The threshold of what constitutes "significant" wildlife value is to an extent a matter of experience and judgement, based on a sound working knowledge of the selection criteria, but key habitat qualities include possible ancient status for woodland, flower-rich grasslands, potential to support reptiles and amphibians, the micro-topography and weedy flora characteristic of post-industrial "brownfield" sites and the ecological relationship between adjacent sites. Given the strong link between the England Biodiversity Action Plans and the site selection criteria, any site associated with a BAP habitat (equivalent to a Habitat of Principal Importance in England) or Species of Principal Importance in England, was evaluated as a matter of course. All surveyors engaged on the project have had previous experience of Local Wildlife Site identification in other Local Authority areas within Essex, including the original 1992 assessment for Chelmsford and the 2004 re-assessment, and so had a working knowledge of what might intrinsically qualify for inclusion.

1.4.8 In order to better understand the survey and review process, John More (Essex Wildlife Trust Local Wildlife Sites Officer) and Claire Stuckey (Senior Planning Officer, Chelmsford City Council) undertook a day's survey alongside Adrian Knowles (EECOS Senior Ecologist). This covered both woodland and grassland habitats, these habitats comprising the majority of existing LoWS.

Ratification

1.4.9 As part of the county-wide quality control process for the identification of LoWS, a representative sample of proposed LoWS were scrutinised by the Essex Local Wildlife Sites Partnership at a meeting on 16th December 2015. Minor amendments to the LoWS citation format were implemented as a result of these discussions, but no objections were raised to those Sites discussed.

1.5 Limitations of the Survey

1.5.1 For many of the 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. In general terms, new information about sites is becoming available all the time. This would make a rolling programme of Site monitoring and review more useful than the more intensive and total review driven by the need to renew Local Plan documents, as has generally been the case in Essex. With the intention for Local Plans to cover at least 15 years, this 'rolling review' process will become even more important.

1.5.2 Although the review was as comprehensive as was practicable, the large number of sites identified for assessment limited site assessments to a single visit per 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 the additional consultation with local naturalists has filled many such gaps in the knowledge base.

2. RESULTS

2.1 Identification of Local Wildlife Sites

2.1.1 The suite of LoWS has been amended from those identified in 2004 for the following reasons:

- Some LoWS (ten in total) have been de-selected on account of their decreased nature conservation value or failure to satisfactorily meet the revised and now more stringent selection criteria. Eight of these Sites have been demoted to Potential Local Wildlife Sites (PLoWS) since it is felt that the situation is not beyond redemption. Two Sites have been fully dropped and are not even retained as PLoWS;
- New, modified or previously overlooked pieces of land have been identified and added to the register. In most instances, such changes involve alterations to the boundaries of existing sites, but 36 completely new LoWS have also been identified;
- Some LoWS have been amalgamated where they lie next to each other or are otherwise sufficiently connected. Where appropriate, linking habitat (*e.g.* a hedgerow between two woods) is included within the LoWS since it has an important ecological role in enhancing the close juxtaposition of the two main Sites.

2.1.2 The revised list of Chelmsford Local Wildlife Sites is provided in Appendix 1 with the revised Local Wildlife Site Register in Appendix 2. Within the Register, each LoWS has a suitably scaled location map (N.B. the scale varies between maps), code number, name (including nearest settlement for ease of locating the site), area in hectares and central Ordnance Survey grid reference. It should be noted that, once identified, a LoWS will keep its original code number, rather than renumbering sites to fill in numerical gaps created by sites being dropped from the LoWS register, hence the gaps in site numbering present within the two Appendices. Where two LoWS have been amalgamated into one larger Site, the code number of one of the Sites is retained and the other one dropped. The original Site numbering scanned from west to east and north to south, so that LoWS 1-150 are spread in a logical manner across Chelmsford and were therefore relatively easy to locate, even if not familiar with the Site. New LoWS 151-186 are numbered in a similar fashion from west to east, but are superimposed over the original numbering sequence, thereby confusing this number sequence. In order to make it easier to find an unfamiliar LoWS on a map, the Site name now includes the nearest settlement name. This also helps with ambiguities, such as the existence of more than one "Rectory Wood" within Chelmsford.

2.1.3 The citation map shows the LoWS in question in pale blue, with any other adjacent Chelmsford LoWS shown in pale green. Sites that lie in adjacent local authority areas are pale yellow, whilst any Chelmsford PLoWS (blue hatching) and SSSIs (orange) are also shown. The citation for each Site then describes the characteristic vegetation, identifies key species and habitat qualities.

2.1.4 Following the citation, a number of additional items of supporting information are given, as follows:

2.1.5 **Ownership and Access:** The vast majority of Sites are in private ownership. This statement confirms that LoWS status does not confer any public right of access to the Site but also provide information about how the wildlife of the area might be lawfully viewed by the casual countryside visitor.

2.1.6 **Habitats of Principal Importance in England:** The Natural Environment and Rural Communities Act 2006 (NERC ACT) imposes an obligation on all public bodies, including local authorities, to have regard to the conservation of biodiversity, particularly of those species and habitats identified as being of 'principal importance'. Section 41 of the Act requires a list to be published that identifies such species and habitats, and for England these are now referred to as Species and Habitats of Principal Importance in England. The presence of these species and habitats is therefore material to the determination of planning applications.

2.1.7 **Selection Criterion:** Refer to the Annex Report for detailed information concerning the rationale behind the criteria and also guidance on how they should be applied. For many sites, any one criterion does not adequately describe the whole site, so multiple criteria are needed, with the citation generally indicating where the different criteria apply.

2.1.8 **Rationale:** In essence, this section explains why it is felt that the Site in question meets the criteria identified in the previous statement.

2.1.9 **Condition Statement:** A very brief statement concerning the Site's current management state.

2.1.10 **Management Issues:** A brief appraisal of potential negative trends or required management in order to maintain the special interest.

2.1.11 Review Schedule:

Site Selected: One of three dates, 1992 (as a SINC), 2004 (as a Wildlife Site) or 2016 as a LoWS.

Reviewed: 2004 and/or 2016, depending on when the LoWS was first selected.

2.2 Changes to 2004 LoWS Network

2.2.1 The following table provides a brief summary of the suite of LoWS identified in 2004, noting if they have been deleted, demoted to PLoWS status or been subject to any other amendments. For clarity, those Sites that have been removed from the LoWS register are highlighted in italic type.

Code Number and Name	Changes (if any)
Ch1 Horsfrithpark Wood	Unchanged
Ch2 Bushey-hays/Ashwood Spring	Ashwood spring demoted to LoWS
Ch3 River Can	Land added to the north; name amended
Ch4 Skreens Wood	Unchanged
Ch5 Sandpit Wood	Unchanged
Ch6 Writtle-Parsons Wood	Minor boundary revision associated with central track; name amended
Ch7 Writtle-Barrow Wood	Section of Mapletree Lane added; section of hedge connecting to Deerslade Wood added; name amended
Ch8 Road Verge 2, Roxwell	*Demoted to PLoWS*
Ch9 Engine Spring/Ring Grove	Unchanged
Ch10 Hopgarden Spring	Unchanged
Ch11 Cooley Spring	Unchanged
Ch12 Chalybeate Spring Meadow	Track along western edge deleted
Ch13 Road Verge 9, Roxwell	Unchanged
Ch14 Writtle-High Woods	Unchanged
Ch15 Newlands Osiers	*Demoted to PLoWS*
Ch16 Road Verge 12, Roxwell	Minor addition; name changed
Ch17 Nightingale Wood	Unchanged
Ch18 Lady Grove, Writtle	Unchanged
Ch19 WrittleWrittlepark Wood	Name amended
Ch20 Bushey Wood	Unchanged
Ch21 Writtle-Jame's Spring	Name amended
Ch22 Great/Little Edney Woods	Unchanged
Ch23 Lee Wood	Unchanged
Ch24 Osbourne's Wood	Small addition
Ch25 Canterburys Meadows, Margaretting	*Demoted to PLoWS*
Ch26 Cow Watering Lane	Name amended
Ch27 Chignall Smealy Meadow	*Demoted to PLoWS*
Ch28 Pleshey Castle	Unchanged
Ch29 Rook Wood	Unchanged
Ch30 King Wood	Unchanged
Ch31 Fitzjohn's Wood	Unchanged
Ch32 Wellhope Meadow	*Demoted to PLoWS*
Ch33 Blatche's Wood	Unchanged
Ch34 Oak Stables Meadow	Unchanged

Ch35 Chapel Wood	Unchanged
Ch36 Pound Wood	Unchanged
Ch37 The Bushet	Unchanged
Ch38 Little Wood	Amalgamated with Ch41 Long Wood; linking hedge added
Ch39 Hylands Park	Internal boundary amendments
Ch40 White's Wood/Martins Grove	Unchanged
Ch41 Long Wood	*Amalgamated with Ch38 Little Wood*
Ch42 Stock Brook Meadow	Stock Brook Meadow
Ch43 Writtle Bridge Meadows	Minor boundary revision
Ch44 Border Wood Lake	Unchanged
Ch45 Hankins Wood	Unchanged
Ch46 Bushy Wood, Chignall	Unchanged
Ch47 Border Wood	Significant addition
Ch48 College Wood	Unchanged
Ch49 Swan Wood	Significant addition
Ch50 Swan Wood Meadow	*Deleted*
Ch51 Littley Park Meadows	Additions and deletions
Ch52 Forty Acre Plantation	Revisions to internal boundaries; additional woodland included
Ch53 Moulsham Thrift Wood	Significant boundary corrections
Ch54 Langleys Deer Park	Significant additions and deletions
Ch55 Newland's Spring	Unchanged
Ch56 Forest Wood	Unchanged
Ch57 Sparrowhawk Wood	Minor addition (pond)
Ch58 Devils/Crays Wood	Minor addition; name amended
Ch59 Great Bishop's/Broom Woods	Unchanged
Ch60 Lady Grove, Galleywood	Unchanged
Ch61 Galleywood Common	Several additions/deletions
Ch62 St Mary's Church, Broomfield	Very minor addition
Ch63 Little Bishop's/Kiln Common	Connecting lane added
Ch64 Meepshole Wood	Lane and woodland strip added
Ch65 Temple Wood	Internal boundary revisions
Ch66 Chathamhall Spring	Unchanged
Ch67 Little Waltham Village Meadows	Minor addition and significant deletions; name amended
Ch68 Chelmer Valley Riverside	Minor boundary revisions and addition of river connection
Ch69 Great Hyde Wood	Unchanged
Ch70 Road Verge 10, Court Hill	Name changed
Ch71 St Martin's Church, Little Waltham	Unchanged
Ch72 Blythhedges Wood	Amalgamated with Ch80 Blythhedges Spring wood; linking hedge added
Ch73 Temple Grove	Unchanged
Ch74 Road Verge 1, Lavenders Bridge	Minor addition; name amended
Ch75 Blythhedges Meadow	Unchanged
Ch76 Broomfield–Little Waltham Chelmer Mosaic	Minor addition; name amended
Ch77 Sheepcotes Wood	Unchanged
Ch78 Hanningfield Mosaic	Significant deletions
Ch79 Prestons Wood	*Deleted*
Ch80 Blythhedges Spring Wood	*Amalgamated with Ch72*
Ch81 St John the Evangelist Church, Little Leighs	Unchanged
Ch82 Crowsheath Community Woodland	Amalgamated with part of Ch78 Hanningfield Mosaic and with Ch85 Cock Wood
Ch83 Channels Golf Course	*Demoted to PLoWS*
Ch84 Phyllis Currie	Significant deletion; amalgamated with Ch88 Dumney Lane Woods

Ch85 Cock Wood	*Amalgamated with Ch82*
Ch86 Straw Brook Plantations	Eastern section deleted
Ch87 Chelmsford Water Meadows	Unchanged
Ch88 Dumney Lane Woods	*Amalgamated with Ch84*
Ch89 Lowley's Farm Meadow	Unchanged
Ch90 Crowsheath Wood and Meadow	Unchanged
Ch91 Fair Wood	Significant boundary revisions
Ch92 Lyonshall Wood	Unchanged
Ch93 Sandylay and Moat Woods	Unchanged
Ch94 Harrow Wood	Unchanged
Ch95 Well/Hawks Wood	Unchanged
Ch96 Chopping's Wood	Unchanged
Ch97 Foxearth Wood	Minor boundary revision
Ch98 Bushy Wood, Great Leighs	Unchanged
Ch99 St Mary the Virgin, Great Leighs	Unchanged
Ch100 Mann/Parson's Wood	Unchanged
Ch101 Sandon Riverside	*Demoted to PLoWS*
Ch102 Scarletts Wood	Minor boundary correction
Ch103 Moorgarden Wood	Unchanged
Ch104 Sandon Pit	Significant addition and deletion
Ch105 Scrub Wood, South Hanningfield	Unchanged
Ch106 Bloodlands	Unchanged
Ch107 The Grove	Unchanged
Ch108 Hounden Wood	Unchanged
Ch109 River Chelmer	Several minor boundary revisions
Ch110 Pitfield Shaw	Unchanged
Ch111 Holts Farm Quarry Lakes	*Amalgamated with Ch113 (with significant deletions)*
Ch112 Plough and Sail Meadows	Minor boundary revisions
Ch113 Boreham Road Gravel Pits	Amalgamated with Ch111 Holts Farm Quarry Lakes (which has a revised boundary)
Ch114 Old Hare Wood	Significant additions
Ch115 Waterhall Meadows	Minor boundary revision
Ch116 Porter's Wood	Minor addition; name amended
Ch117 Gorse Wood	Unchanged
Ch118 Hall Wood	Minor addition and boundary revision
Ch119 Rettendon Shaw	Unchanged
Ch120 Toppinghoehall Wood	Unchanged
Ch121 Thorn Wood	Significant addition
Ch122 New Lodge Meadow	*Demoted to PLoWS*
Ch123 Little Baddow Chapel	Minor boundary revision; name amended
Ch124 The Willows	Unchanged
Ch125 Boreham Meads	Minor deletion and boundary revision; river section transferred to Ch109
Ch126 Danbury Palace	Significant deletions
Ch127 Road Verge 5, Colam Lane	Minor boundary revision
Ch128 Brakey Wood	Small addition
Ch129 Rectory Wood, Colam Lane	Unchanged
Ch130 Hollybred Wood	Minor deletion (car park)
Ch131 St John the Baptist's Church, Danbury	Significant addition
Ch132 Little Gibcracks	Unchanged
Ch133 Heather Hills/Scrub Wood	Unchanged
Ch134 Bellhill Wood	Minor boundary revision
Ch135 Brickwell Wood	Unchanged
Ch136 Overshot Complex	Significant addition and deletion
Ch137 "Charlies Bit"	Minor addition
Ch138 Pheasanthouse Farm	Unchanged

Ch139 Bassetts Wood	Significant addition
Ch140 Dell Meadow	Minor addition
Ch141 Little Baddow Heath	Significant addition
Ch142 Folks Wood	Unchanged
Ch143 Woodham Fen North	Unchanged
Ch144 Hyde Wood	Unchanged
Ch145 Jacklett's/New England Wood	Unchanged
Ch146 Slough House Wood	Unchanged
Ch147 Emberson's Wood	Minor addition
Ch148 Round Wood	Unchanged
Ch149 Fenn Washland	Significant addition
Ch150 Bushey Hill	Significant deletions

2.3 Additions

2.3.1 Many of the 2004 LoWS have had new areas of land added to them, as indicated in Section 2.2, above, but there are also many completely new sites that are now added to the LoWS register for Chelmsford. These are:

Code Number and Name	Key Habitat(s)
Ch151 The Moors	Old woodland
Ch152 St Paul Highwood Churchyard	Old grassland
Ch153 Oxney Spring	Old woodland
Ch154 Pleshey Road Verge	Grassland road verge
Ch155 All Saints Church, Writtle	Old grassland
Ch156 Imphy Hall Wood	Old woodland
Ch157 Turkshill Wood	Old woodland
Ch158 Hartford End Spring	Old woodland
Ch159 Stock Hill Wood	Old woodland
Ch160 Wood Spring	Old woodland
Ch161 Daffy Wood	Old woodland
Ch162 Widford Meadow	Species-rich grassland with rare species
Ch163 Penden Hill Verges	Grassland road verges
Ch164 Writtle Road Cemetery	Old grassland
Ch165 Marconi Ponds Nature Reserve	Habitat mosaic; educational resource
Ch166 Puddings Wood	Old woodland
Ch167 Littley Green Road Verges	Grassland road verges
Ch168 Seamans Lane	Wildlife corridor; potential Dormouse habitat
Ch169 Galleywood Brook Woods	Old woodland
Ch170 Little Leighs Orchid Meadow	Rare plant assemblage
Ch171 Stonage Wood	Old woodland
Ch172 Rectory Wood, Downham	Old woodland
Ch173 Bluebell Wood	Old woodland
Ch174 Sir Hughes' Woods	Old woodland
Ch175 Middle Wood	Old woodland
Ch176 Bulls Lodge Lagoons	Brownfield habitat mosaic
Ch177 Long Spring Wood	Old, probably ancient woodland
Ch178 Danbury Park	Veteran trees and old grassland/parkland
Ch179 Riffhams Lane Wood	Old woodland
Ch180 Wood North of Marks Farm	Mixed broadleaved woodland of varying age
Ch181 New Wood	Old woodland

Ch182 Mayes Lane Verges	Grassland road verges
Ch183 Common Lane Woods	Mixed broadleaved woodland of varying age
Ch184 Woodside Wood	Old woodland
Ch185 Clark's Wood	Old, probably ancient woodland
Ch186 Fen Creek Marsh	Coastal grassland and wetland

2.4 Summary of Additions/Deletions

2.4.1 The starting point for this review was 150 LoWS, ratified in 2004. This review has seen a net increase of 21 Sites to give a new total of 171 LoWS. This moderate increase in number belies many significant changes within the LoWS network, with numerous additions and amalgamations, and a few deletions, summarised in the preceding sections.

2.4.2 The old series of 150 Sites comprised 1654.2 hectares of land. The new register of 171 Sites covers 1662.7 hectares, representing a net increase of just 8.5 hectares. Totally new LoWS comprise 87 hectares of land (this does not include new land added to existing LoWS). The relatively small increase in total LoWS area despite having 36 new Sites is largely the result of losing several large LoWS, demoted to PLoWS status, whilst many new LoWS are quite small.

2.4.3 Additions come from a variety of sources: there are several small fragments of probably ancient woodland that went undetected during previous reviews; several grassland churchyards and road verge sections have been added, which have been surveyed at more favourable times of year than when previously reviewed or were subjected to a better level of surveying afforded by the improved rights of access of this current study. A better appreciation of nature conservation issues and increased breadth of coverage of the selection criteria have seen the addition of areas of parkland and sites where their urban context and use by the local community are important considerations.

2.5 Other Sites

2.5.1 In addition to those sites selected as LoWS, a number of Potential Local Wildlife Sites (PLoWS) have been identified. They are pieces of land for which further survey work may be required or a change in management needed (either more or less management). Virtually any piece of semi-natural vegetation has the potential to be improved for wildlife, which might make this list unmanageable, so any list of PLoWS is restricted to those "near misses" that just failed to make it onto the full LoWS Register. Some of the Potential LoWS are former LoWS that have deteriorated in quality and need restorative management in order to be able to re-consider them in the future.

2.5.2 Whilst most sites that might make future LoWS are already likely to be extant, one suite of habitats is harder to pin down – that of "brownfield" land. This is a Habitat of Principal Importance in England, under the term "Open Mosaic Habitats on Previously Developed Land". For example, to the north-east of Chelmsford city, around the former Boreham airfield, is a very large area of active sand and gravel extraction. Whilst still active, it is not possible to evaluate such sites for their true ecological value and much of the realisation of any potential they may have will depend upon the restoration plan that has probably already been agreed as part of the consent with Essex County Council. Restoration to arable usage or landfill will see much of the potential of this site lost, but it may be possible to influence the final outcome favourably.

3. DISCUSSION

3.1 Local Wildlife Site Network

3.1.1 The number of Local Wildlife Sites within Chelmsford has been revised following the application of the current site selection criteria, which are both more rigorous than those previously used for Chelmsford LoWS and also more all-embracing and wide-reaching, allowing for the identification of LoWS for which the interest features did not have a suitable criterion structure in 2004. This includes LoWS for which their role in the urban environment, especially as education resources, was not previously embraced so fully.

3.1.2 LoWS that were removed from the network are now considered to be of insufficient quality when measured against the new criteria, either because of a decline in the habitat present over the intervening years or because the selection criteria are now more stringent. Most of these lost sites have been placed within the category of Potential Local Wildlife Site (PLoWS), recognising the fact that for many of them, the cause of their deterioration is to do with current management practices. As such, they are perhaps not beyond redemption and might, with appropriate management and further survey work, be readmitted to the LoWS register.

3.1.3 Two LoWS have, however, been dropped completely. These are Ch50 Swan Wood Meadow and Ch79 Prestons Wood. Swan Wood Meadow was identified on the grounds of a number of marshland plants that are scarce in Essex. However, the amount of appropriate habitat now left within this site is minimal and the species of particular significance could not all be found in the small remaining area. Much of the site has now got scrub and tree cover on it. Prestons Wood is listed on the Essex Ancient Woodland Inventory. However, reference to the first edition 6" Ordnance survey maps of the 1870s shows that the site was not wooded at that time, so that the Ancient Woodland Inventory is erroneous. The wood has a poor structure and composition, including a ground flora that is lacking typical ancient woodland plants. However, in 2004 the opinion of the Ancient Woodland Inventory was followed, since at that time the old OS maps were not easily available for inspection. In its current condition, it is felt that it is not a good example of the Habitat of Principal Importance in England "Lowland Mixed Deciduous Woodland". As such, the wood does not match any of the current criteria, nor is it likely to in the foreseeable future.

3.1.4 With regard to the new Sites, not previously identified as a LoWS under any previous system, many are small woodlands that are undeniably old and very possibly ancient. They are too small to have been considered for the Ancient Woodland Inventory (which had a minimum size

2 hectares as a threshold for inclusion) and previous surveys did not have the powers of access afforded to this survey, which might have revealed their true character and importance. Several of the new LoWS are churchyards or other burial grounds. These sites are very often frequently mown and so an appreciation of their value is dependent upon visiting the site when it has not been recently cut. This may account for these LoWS having not been identified before.

3.1.5 Whilst development is often seen as the big threat to the countryside, loss of LoWS land between 2004 and 2016 to development has been minimal. There are two notable exceptions to this: the Channels Golf Course, to the north of Chelmsford City, and Sandon Pit to the east.

3.1.6 With regard to Channels Golf Course, the whole area is currently subjected to significant change due to redevelopment of the course and residential development, with some parts of the course no longer actively used. This state of flux has resulted in the former LoWS being demoted to a PLoWS, at least until stability returns to the area. The Site was designated because of the large meta-population of Great Crested Newts present within the numerous ponds across the course. As a European Protected Species, Great Crested Newts receive strict legal protection under both UK and EU law and therefore still command conservation efforts when their habitat is threatened, so the demotion of this site from the LoWS register ought not to have any impact upon their survival.

3.1.7 At Sandon Pit much of the southern part of the old Site has been removed because active earthmoving is ongoing, thought to be associated with recent consent for land fill operations. Thus, it is likely that the sparsely vegetated ground, steep bank faces and other features of ecological value here will be lost. In some places this has happened already. It is understood that the northern pit may also be threatened with being used for landfill. However, its ecological value as brownfield habitat is self-evident and so it is retained as a LoWS for Chelmsford. As a former mineral extraction site, the fate of this Site lies in the hands of Essex County Council, rather than Chelmsford City Council.

3.1.8 Geographically, there is a reasonable spread of LoWS across Chelmsford (Fig. 1, below). Perhaps one of the most significant features of Fig. 1 is those areas that have few, if any, LoWS. Two large swathes of land stand out in this respect. The first of these (A in Figure 1) is to the west of the city itself, from Chignall Smealy in the north, southwards through Chignall St James to the western flank of Writtle and then turning south-westwards to Cooksmill Green.

3.1.9 The second (B) lies between Chelmsford City and South Woodham Ferrers, covering Howe Green, East Hanningfield and Woodham Ferrers. It should be noted that much of the city itself, especially to the north and east of the River Chelmer (primarily Springfield and Chelmer Village areas), is also devoid of significant wildlife areas and this is a matter that could be addressed within the planning system with regard to future developments and suitable habitat creation or enhancement.

3.1.10 The converse situation is also true, with several strong clusters of LoWS, coinciding with Living Landscape Areas (see Section 3.2, below). The most obvious of these is the collection of large ancient woods of Writtle Forest, forming an ancient landscape feature of great character. The Danbury Ridge is another strong cluster, with the numerous LoWS supporting the several SSSIs found there. Another important cluster of mainly woodland Sites is found around Stock and Ramsden Heath, in the south-west of Chelmsford.

3.2 Living Landscapes

3.2.1 The Essex Wildlife Trust is promoting a suite of significant landscapes for wildlife across the county under the title of "Living Landscapes" (see Figures 1 and 2, below). They embrace important landscape features, such as river valleys and estuaries; characteristic landscapes and land uses, such as clusters of hamlets and villages with ancient greens, drove ways and roadside grasslands and significant clusters of good wildlife habitat such as unusually well wooded areas. An important consideration for these areas is that they are also beneficial to local people and communities and foster 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. 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.

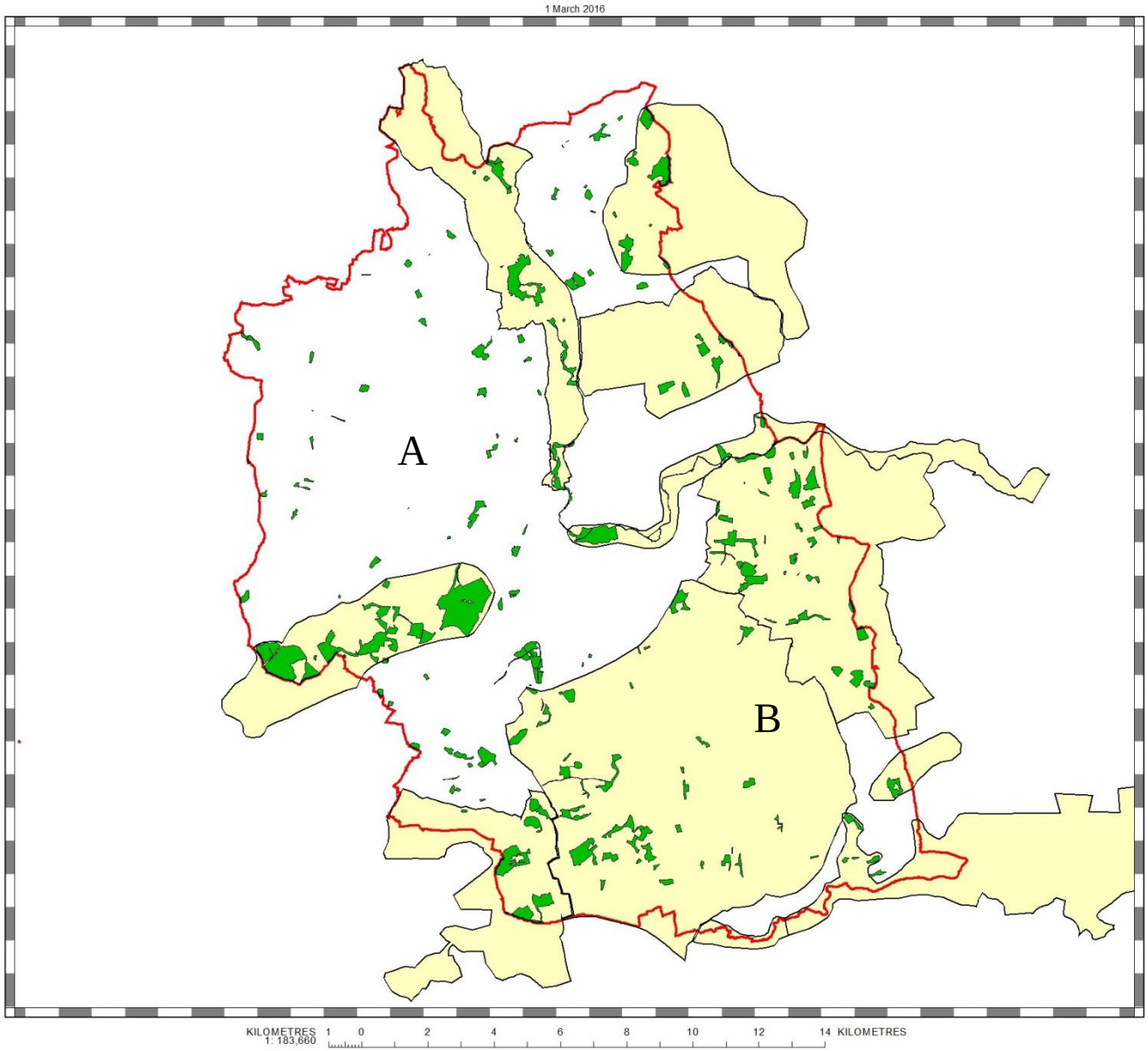

Figure 1

Distribution of LoWS within Chelmsford, with reference to Living Landscape Areas

Living Landscape Areas

Local Wildlife Sites

EECOS Essex Ecology Services Limited

Essex Ecology Services Ltd. EECOS

01621 862986 eecos@essexwt.org.uk

Registered Office: Abbotts Hall Farm,

Great Wigborough, Colchester, Essex CO5 7RZ

Company Registered No. 2853947

VAT Registered No. 945 7459 77

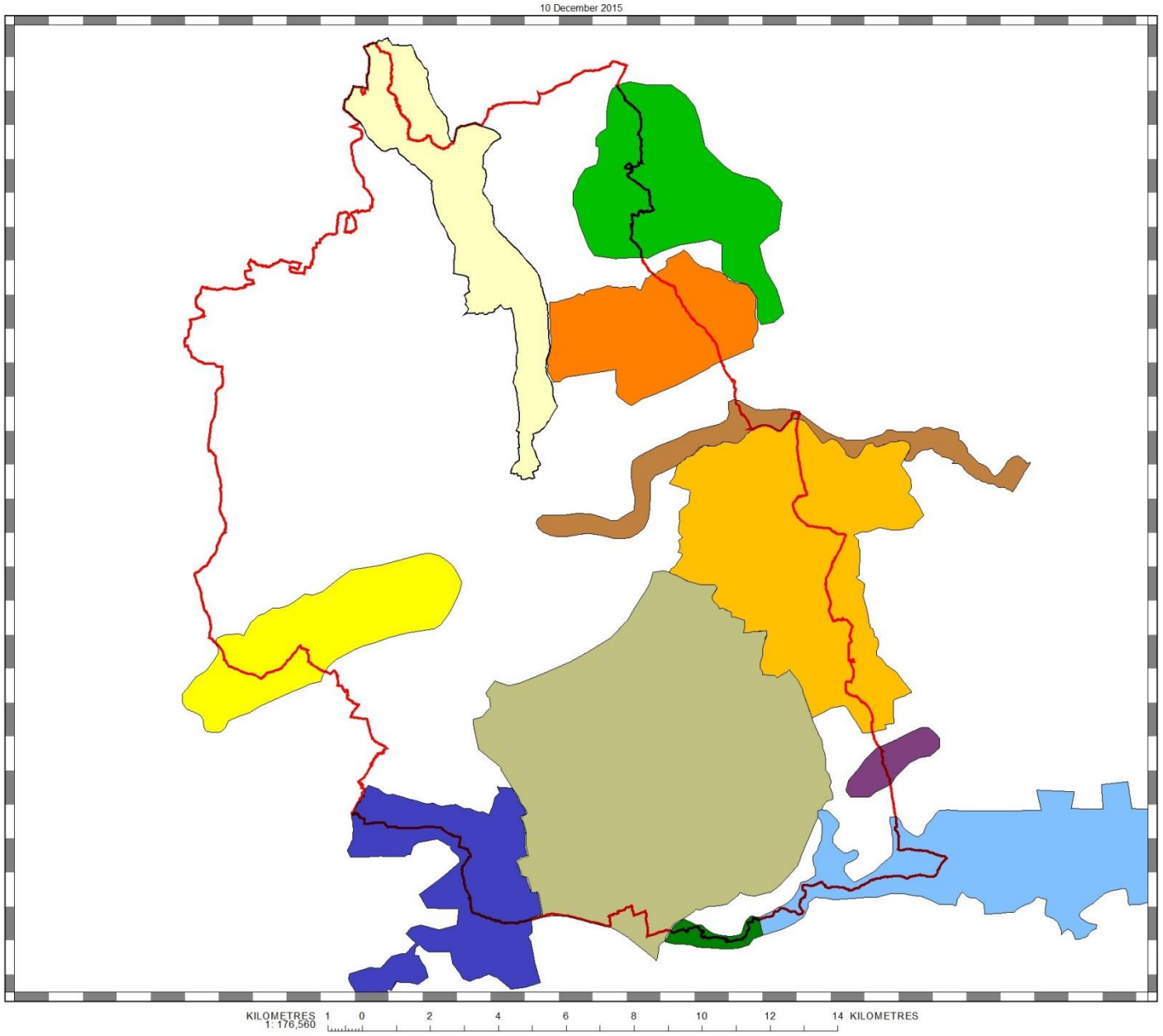

Figure 2 Living Landscape Areas

- Upper Crouch
- Ramsden Heath and Woods
- Hanningfield Reservoir and Woods
- Writtle Forest
- Upper Chelmer
- Ter Valley
- Boreham Common
- Lower Chelmer
- Danbury Ridge
- Bushey Hill
- Crouch and Roach Estuaries

EECOS Essex Ecology Services Limited

3.2.2 These Living Landscapes are spread right across the county, several of which are partly within Chelmsford and these are discussed below with reference to their associated LoWS. Whilst shown with precise boundaries on Figures 1 and 2, in reality the borders of these areas should be treated as being "fuzzy" 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. Such matters are administered by the Living Landscapes Co-ordinator, based at the Essex Wildlife Trust headquarters.

3.2.3 It is no coincidence that there is generally a good "fit" between the clusters of LoWS shown on Figure 1 and the distribution of Living Landscapes. One of the guiding parameters when deciding the broad boundaries of the Living Landscapes was that they encapsulated good quality habitat, as a starting point. However, this is not always the case, as is illustrated by the Hanningfield Reservoir and Woods Living Landscape that extends eastwards into area "B" identified on Figure 1 as an area that is largely devoid of LoWS. Each of the Living Landscapes within Chelmsford is discussed briefly, below, with reference to key LoWS.

3.2.4 Upper Crouch

This is a rather small area, running between Runwell and Battlesbridge, with no LoWS.

3.2.5 Ramsden Heath and Woods

This forms part of the significant cluster of woods and other LoWS to the west of Hanningfield Reservoir. It includes LoWS Ch52 Forty Acre Plantation, Ch58 Devils/Crays Wood, Ch64 Meepshole Wood, Ch59 Great Bishop's/Broom Woods and Ch63 Little Bishop's/Kiln Common. The notion of improving connectivity between these sites is embraced by the inclusion within the Meepshole Wood Site of a strip of woodland running south to the Crays Wood complex. This block of woodland continues to the south of the railway line as LoWS within Basildon Borough.

3.2.6 Hanningfield Reservoir and Woods

This area comprises the remainder of the LoWS cluster to the west of the reservoir, but also extends eastwards to the rather barren area previously identified between Howe Green and Woodham Ferrers. This generates two contrasting tasks: to improve the connectivity between LoWS in the west of this Living Landscape and to engage in habitat creation and improvement works in the east. It should be noted that the Royal Horticultural Society's Hyde Hall property lies quite centrally within this relatively barren area. The RHS has already undertaken a great

deal of habitat creation work here, planting a significant area of new woodland, creating extensive grasslands and excavating a new lake. This activity and the publicity it receives could be a catalyst to encourage similar schemes in the surrounding countryside.

3.2.7 Writtle Forest

This is one of the key areas for woodland and parkland ecology in Chelmsford, with the several large remnants of the ancient Writtle Forest and also Hylands Park included. Although significant areas of ancient woodland have been lost in the past decades, large blocks of woodland still remain and it should perhaps be a priority to encourage woodland creation to strengthen the ecological links between the surviving woods. This need not be dense broad-leaved woodland cover alone that provides the links. Broad-leaved parkland over species-rich grassland, creating a landscape of wood pasture and parkland would make an attractive addition to the landscape and remain economically viable as grazing land or recreational space as an alternative to arable cultivation.

3.2.8 Upper Chelmer

The River Chelmer is the 'backbone' to this Living Landscape and several large LoWS lie along its banks. The key Sites are Ch51 Littley Park Meadows at the northern end; Ch54 Langleys Deer Park, Great Waltham; Ch76 Chelmer Mosaic, Broomfield; and Ch68 Chelmer Valley Riverside. The latter site runs right through Chelmsford city where its function as a green corridor for wildlife (such as Otters, Kingfishers, Water Voles, fish and other aquatic life) and also for humans should not be underestimated: it largely overlaps with a statutory Local Nature Reserve, which recognises the site as an important place for people, for environmental education and quality of life. These are all key qualities of a Living Landscape and the LNR/LoWS should be the focus of work to further these aims.

3.2.9 Ter Valley

The majority of this Living Landscape lies within Braintree District. Whilst the core of this Living Landscape is the river valley (with a section of the River Ter itself identified as a geological SSSI on account of its riverine geomorphology), the key LoWS within the Chelmsford section are large woods: Ch92 Lyonshall Wood, Little Leighs; Ch93 Sandylay and Moat Woods, Great Leighs; Ch98 Bushy Wood, Great Leighs; and Ch100 Mann/Parson's Wood, Great Leighs.

3.2.10 Boreham Common

This area comprises a broad plateau of glacial sands and gravels upon which a Second World War airfield (RAF Boreham) was constructed. Following its disuse, much of the area has been turned into a sprawling sand and gravel quarry. The wildlife value of worked-out mineral extraction areas is reflected in the identification of two LoWS within this area: Ch113 Boreham Road Gravel Pits, Boreham (an old LoWS) and Ch176 Bulls Lodge Lagoons, Boreham (a new LoWS).

3.2.11 As other, currently active parts of the quarry operation close there will be huge potential for large-scale habitat creation, including new heathland, although there will also be pressures for other after-uses such as landfill and/or return to agriculture. The spirit of the Living Landscapes project would be to blend these conflicting desires together, creating an economically viable restoration plan that nevertheless incorporates good quality wildlife habitat and a site of benefit to the local community.

3.2.12 Lower Chelmer

This comprises the immediate floodplain of the River Chelmer downstream of the city. The river Chelmer is one of the best quality rivers in the county and extant areas of floodplain grassland (Ch87 Chelmsford Water Meadows and Ch125 Boreham Meads) lie at either end of the river. There would be much value in creating new areas of grassland along the river margins in order to improve the ecological link between these sites. The continued tendency of parts of this river corridor to flood arable land could be used as a leverage to encourage the creation of new river backwaters and floodplain grassland, as has been done at the Essex Wildlife Trust's Little Waltham Meadows nature reserve (part of LoWS Ch76 Chelmer Mosaic).

3.2.13 Danbury Ridge

This area supports one of the more important clusters of LoWS in the county, with numerous areas of old heathland, ancient woods and important recreational sites where people can readily engage with wildlife and the countryside at large. Many of these sites are in need of restoration, such as the invasion of recent oak wood into the ancient parkland landscape of Danbury Park (Ch178), the ever-present threat of scrub invasion over the heathland at Danbury Common and allied sites and also succession to scrub woodland within the Overshot Complex LoWS (Ch136).

3.2.14 Bushey Hill

This is a small Living Landscape area but it is a very prominent landscape feature for South Woodham Ferrers. The grassland surrounding the research station has had a chequered history in recent years, with a large central area ploughed up and returned to arable cultivation. The eastern end has suffered from a lack of recent management and has here been demoted to a Potential LoWS, pending more detailed survey work and restorative management. The remaining areas of grassland are succumbing to scrub encroachment, but they still retain areas of unimproved, hill-top acid grassland.

3.2.15 Crouch and Roach Estuary

This area is dominated by the intertidal habitats of the Crouch Estuary (part of a Site of Special Scientific Interest, SSSI), but a number of LoWS have been identified to highlight the value of habitats beyond the SSSI boundary.

3.3 England BAP and Habitats of Principal Importance in England (HPIE)

3.3.1 The Natural Environment and Rural Communities (NERC) Act 2006 imposes an obligation on all public bodies, including local authorities, to have regard to the conservation of biodiversity, particularly of those species and habitats identified as being of principal importance. Section 41 of the Act requires a list to be published that identifies such species and habitats. The habitats are referred to as England Biodiversity Action Plan (BAP) 'Habitats of Principal Importance in England' (HPIE), in line with the Post-2010 Biodiversity Framework, published in July 2012. They are effectively the Priority Habitats listed in the UK BAP that occur in England.

3.3.2 These HPIEs form the basis of many of the LoWS habitat selection criteria and there is a responsibility for local authorities to monitor and conserve these habitats within the Local Development Plan. There are, therefore, clear overlaps between the LoWS system and the Biodiversity Habitat Action Planning process.

3.3.3 Following the post-2010 Biodiversity Framework, work started to review the Essex BAP, which had originally been formulated to implement the UK BAP at a local level. However, at the current time, this Essex review process is on hold, leaving the England BAP and the suite of HPIE as the basic framework within which the process of selecting LoWS in Essex now sits. The Essex Biodiversity Partnership remains very active in working towards the goals set by the England BAP and the NERC Act 2006. The current Chelmsford BAP runs from 2013-2018, but when reviewed it will need to reflect these changes in higher level biodiversity action planning.

3.3.4 The identification of the relevant HPIEs found within each Site on the LoWS citation sheets should allow land managers, planners and countryside agencies to easily see how the management of any site could be contributing to the England BAP projects. The following section reviews the key HPIEs found within Chelmsford and illustrates how their conservation is being assisted by the LoWS network.

3.3.5 Arable Field Margins

The definition of this HPIE includes headlands around arable fields being of a certain width and managed for the benefit of wildlife, so that not all field margins of arable fields would qualify as representative examples.

3.3.6 Traditional Orchards

There are precious few examples of good, traditional orchards left within Chelmsford. The Chelmsford Biodiversity Action Plan refers to three Community Orchard projects: 'Chelmer Park', 'Chignal and Mashbury' and 'Greater Beaulieu Park'. Two of these are creating new orchards whilst the third is restoring an extant orchard remnant. In time, these areas might come to harbour sufficient wildlife interest to be adopted as LoWS but all are fairly long-term projects.

3.3.7 Hedgerows

The HPIE definition of a qualifying hedgerow is very broad. It requires a hedgerow to consist of more than 80% cover of woody species native to the county. There appears to be no requirement for species diversity or for age, but it is intended that all hedgerows with a rich basal flora will also be included. It has been estimated that 84% of hedgerows in the UK will qualify and the same kind of percentage could be expected for Chelmsford.

3.3.8 In the past, there has been a presumption within the Essex LoWS system that the presence of any national BAP Priority Habitat (now HPIE) would qualify a site for consideration as a LoWS, and in most cases it is possible to include all examples of the habitat. With hedgerows it would serve no purpose to include every qualifying hedgerow, as this would lead to a proliferation of LoWS that would dilute their importance at a district and county level. The Hedgerow Regulations 1997 serve to afford protection to hedges of higher conservation significance. Therefore, there is a need to focus on a representative selection of hedgerows or hedgerow systems to ensure the inclusion of the habitat within the network.

3.3.9 The role of hedgerows as important wildlife corridors is reflected in the inclusion of a number of individual hedges and green lanes within woodland LoWS. Examples include Ch7 Barrow Wood/Birch Spring, Loves Green; Ch38 Little and Long Woods, Stock; Ch72 Blythhedges Woods, West Hanningfield; and Ch64 Meepshole Wood, Ramsden Heath. A new LoWS, Ch168 Seamans Lane, West Hanningfield, is a green lane that provides good connectivity as well as being an important habitat for Dormice in its own right. Furthermore, hedgerows do feature in many of the non-woodland sites and for any individual LoWS it should be assumed that its bounding hedgerows (plus any internal hedges) are included within the Site.

3.3.10 The Chelmsford BAP identifies the Danbury and Ramsden Heath areas (both Living Landscapes) are targets for the promotion of good hedgerow management and to these might be added the Hanningfield Reservoir and Woods Living Landscape. All three areas have a high density of woodland LoWS that would be enhanced by good hedgerow connectivity.

3.3.11 Coastal Saltmarsh

Despite its central location within Essex, Chelmsford is not quite a land-locked entity. The river Crouch and Fenn Creek provide access to coastal habitats close to South Woodham Ferrers. Virtually all saltmarsh vegetation is included within the Crouch and Roach Estuaries SSSI and therefore lies beyond the reach of the LoWS network. However, some intertidal vegetation, including saltmarsh elements can be found in LoWS Ch143 Woodham Fen North, South Woodham Ferrers and, more notably, Ch186 Fen Creek Marsh, South Woodham Ferrers.

3.3.12 Intertidal Mudflats

This HPIE is barely present in Chelmsford but occurs as narrow strips of intertidal mud along the shores of the Crouch Estuary at South Woodham Ferrers, all covered by the Crouch and Roach Estuaries SSSI.

3.3.13 Saline Lagoons

There are few, if any, true saline lagoons within Essex, as defined by the HPIE (which requires a significant exchange of water during each tidal cycle), but similar habitat conditions can be found in some of the borrow dykes inland from the seawalls around Essex, and a few lagoons have brackish water conditions. LoWS Ch143 Woodham Fen North, South Woodham Ferrers and Ch186 Fen Creek Marsh, South Woodham Ferrers contain small brackish pools.

3.3.14 Eutrophic Standing Waters

In the Chelmsford BAP this HPIE is included within the title 'Lakes and Ponds', although the subsequent actions focus exclusively on ponds. This is perhaps an unexpected HPIE, being large water bodies that have very high nutrient levels, largely as a result of human activity, such as from agricultural run-off. Naturally rich water bodies do occur in the UK, although all Essex examples are dominated by artificial enrichment. It might be argued that every farm reservoir and ornamental park lake in Essex comprises this HPIE and so inclusion within a LoWS requires additional, surrounding habitat of good conservation value, where the aquatic habitats form part of a complex ecosystem.

3.3.15 These are biologically very productive water bodies, fuelled by the high nutrient status, and this can lead to algal blooms during the summer. They might not often support rare species of animal or plants but their productivity helps to drive complex aquatic food chains that lead to diverse assemblages. Within Chelmsford LoWS network they are present as additional habitat in a number of sites, including Ch28 Pleshey Castle, Pleshey (its moats); the small lakes of Ch39 Hylands Park, Chelmsford; Ch44 Border Wood Lake, Broomfield; Ch113 Boreham Road Gravel Pits, Boreham; Ch176 Bulls Lodge Lagoons, Boreham; and Ch126 Danbury Country Park, Danbury.

3.3.16 Ponds

Although ponds are almost as widespread as hedgerows in the countryside, their HPIE definition is quite strict, such that relatively fewer ponds would qualify in Essex. It requires the presence of rare, legal protected or otherwise notable species or species assemblages to be considered as an example of this HPIE. As a result, all ponds known to support Great Crested Newt populations would qualify. Also, ponds supporting a Nationally Scarce wetland plant species, or three Nationally Scarce aquatic invertebrate species would also qualify, but this would require an enormous amount of survey work to establish the true extent of this HPIE in the county. Numerous LoWS include ponds within their boundaries. Where permanent ponds lie on the boundary of a LoWS there will be a general assumption that the pond will be included within the Site.

3.3.17 As such, the presence of ponds within a LoWS should be treated in a similar manner to Eutrophic Standing Waters. It is deemed unmanageable to list all known Great Crested Newt ponds as LoWS. Rather, notable meta-populations (clusters of such ponds) could be identified under the appropriate species selection criteria.

3.3.18 The Chelmsford BAP takes a far more general approach to ponds. Whilst any such actions would not, in strict terms, be contributing to the England BAP targets, ponds are valuable wildlife habitats that support many Species of Principal Importance in England and are worthy of such conservation measures.

3.3.19 Rivers

The HPIE definition of qualifying habitat in this category is also complex and quite demanding, such that not all rivers would qualify. One of the criteria is, "Riverine water bodies of high hydromorphological/ecological status", which is open to some interpretation, but it is felt that the River Chelmer fits this description well. In various forms, it appears in several LoWS: as part of Ch67 Village Meadow, Little Waltham; Ch68 Chelmer Valley Riverside, Chelmsford; Ch76 Chelmer Mosaic, Broomfield; and Ch87 Chelmsford Water Meadows, Chelmsford, as well as Ch109 River Chelmer, Chelmsford in its own right.

3.3.20 The Chelmsford BAP again takes a more liberal approach to river biodiversity and this is also not without merit. However, a focus on larger, catchment-sized issues might reap longer-term and more significant benefits.

3.3.21 Lowland Dry Acid Grassland

This habitat is closely associated with Lowland Heathland (see below) and invariably occurs as a mosaic with heathland. Its conservation is dependent upon the maintenance of a relatively low soil nutrient status, often the presence of grazing animals (including Rabbits) and freely draining, sandy soils. It is very susceptible to loss through scrub and woodland invasion.

3.3.22 Within the Chelmsford LoWS network, it is found at several sites, notably in the Danbury Ridge Living Landscape, but also around Galleywood. Much of this habitat is included within SSSIs, such as Blake's Wood and Lingwood Common; and Danbury Common. Key LoWS for this habitat type are: Ch61 Galleywood Common, Galleywood; Ch99 St Mary the Virgin, Great Leighs; Ch126 Danbury Country Park, Danbury; Ch133 Heather Hills/Scrub Wood, Little Baddow; Ch141 Little Baddow Heath, Little Baddow; and Ch178 Danbury Park, Danbury.

3.3.23 The Chelmsford BAP focusses heavily on work within the SSSIs but also cites Galleywood Common as a key site. The BAP also refers to a target within the old Essex BAP to create significant areas of new acid grassland. As previously mentioned (Section 3.2, Boreham

Common Living Landscape), current sand and gravel extraction sites offer excellent opportunities for this sort of habitat creation as part of their after-use restoration plan, even if in combination with other uses, including partial re-establishment of agricultural use.

3.3.24 Lowland Meadows

The definition of this HPIE, as applied to Essex, essentially covers unimproved, species-rich grasslands on neutral soils that can be ascribed to the National Vegetation Classification 'MG5 *Cynosurus cristatus* - *Centaurea nigra* grassland' vegetation type. This is perhaps a narrower definition than is used within the Chelmsford BAP, but the over-riding principles are the same: the conservation of species-rich grasslands on loamy, neutral soils.

3.3.25 This habitat type has undergone a dramatic decline in recent declines, to the extent that very few significant locations remain, although several sites have been identified that have probably evolved from this grassland type. Several of these are churchyards (and other burial grounds) and road verges: two places that have escaped the ravages of agricultural improvement. One of the best locations (not included within the targets for the Chelmsford BAP) is LoWS Ch138 Pheasanthouse Farm, Little Baddow, part of an Essex Wildlife Trust reserve. Churchyards/burial grounds that have likely evolved from this grassland type include Ch71 St Martin's Church, Little Waltham; Ch123 The Chapel, Little Baddow (0.11 ha) TL 76690778; Ch131 St John the Baptist's Church, Danbury; and Ch155 All Saints Church, Writtle.

3.3.26 Lowland Heathland

The distribution, key sites and issues for this HPIE are as per Lowland Acid Grassland, above.

3.3.27 Open Mosaic Habitats On Previously Developed Land

Popularly termed "brownfield" land, this HPIE is one of the most contentious. They are entirely man-made sites, often perceived as "waste ground" and can be quite temporary in nature. There are huge pressures to bring them into more productive use, including housing, landfill or other development. They are key sites for the conservation of numerous scarce or rare insects and can be amongst the most species-rich habitats in the countryside. Because many such examples are temporary in nature, such as can be found around still-active mineral extraction sites, it can be difficult to define areas within the LoWS network. Often, examples are becoming more mature, stable habitats that are losing their key quality of sparsely vegetated ground and complex mosaic of vegetation types. Within the LoWS network, examples of this include Ch113 Boreham Road Gravel Pits, Boreham; and Ch44 Border Wood Lake, Broomfield. At these sites, some ground

disturbance, to clear scrub and reverse the processes of natural succession would benefit the ecology of the sites. One of the largest and most important brownfield sites within Chelmsford is Ch104 Sandon Pit, Sandon, which is believed to be threatened by landfilling.

3.3.28 This HPIE is currently not adequately covered by the Chelmsford BAP, which should be addressed as a matter of priority when this important document is reviewed.

3.3.29 Coastal And Floodplain Grazing Marsh

As with other coastal habitats, coastal grazing marsh is restricted to the environs of South Woodham Ferrers and is largely covered by SSSI designation.

3.3.30 Lowland Fens

Strictly speaking, fens are peatlands and, as such, there are probably very few true examples in Essex. However, fen-like vegetation occurs around the margins of some shallow water bodies and in valley floors. This more generous definition allows representative examples of this sort of vegetation type to be included within the LoWS network, although the term swamp/fen would be more appropriate.

3.3.31 Representative examples can be found in Ch3 River Can Floodplain, Good Easter; Ch12 Chalybeate Spring Meadows, Good Easter and Ch86 Straw Brook Plantation, Little Leighs.

3.3.32 Lowland Raised Bog

This is an even rarer habitat in Essex, although formerly scattered across a number of heaths and open woods. The Chelmsford BAP identifies two localities within Chelmsford. One, in Pheasanthouse Wood, Danbury, is included within the Woodham Walter Common SSSI. The other is in Galleywood Common, which is very small and under constant threat from scrub encroachment. Its conservation is of high importance for this habitat type in Chelmsford since this is a habitat type that cannot realistically be recreated, it being a very slow accumulation of peat and bog-mosses that can take centuries to develop.

3.3.33 Reedbeds

Reedbed habitat is not well represented in Chelmsford. There are large stands within the Hanningfield Reservoir SSSI, but within the LoWS network, Common Reed tends to occur as small stands of vegetation that are unlikely to attract many reedbed specialist birds. A moderate stand of Reed occurs as fringing habitat around one of the waterbodies at LoWS Ch176 Bulls

Lodge Lagoons, Boreham; Ch12 Chalybeate Spring Meadows, Good Easter; Ch86 Straw Brook Plantation, Little Leighs; Ch149 Fenn Washland and Frankland Fields, South Woodham Ferrers; and Ch125 Boreham Meads, Boreham.

3.3.34 This is another habitat that could be created in work-out mineral extraction sites (see, also, Lowland Acid Grassland), promoting Reed growth in the settling ponds that are often associated with the water management systems of such sites. Smaller stands of Reed can also be usefully grown as part of SuDS (Sustainable Drainage Systems) areas designed to treat some surface water run-off from new developments – another example of the Living Landscape philosophy, to create useful wildlife habitat, a pragmatic solution to a development issue and an attractive landscape feature for local residents.

3.3.35 Lowland Mixed Deciduous Woodland

Given the importance of ancient woodlands in the Essex landscape, as the closest link to the truly native vegetation type of most of the county, it is not surprising that this HPIE is very well represented in the LoWS network. However, not all such LoWS examples are ancient. Within LoWS Ch63 Little Bishop's/Kiln Common, the south section (Kiln Common) was formerly open land which has, over the last 170 years, become woodland. Its close proximity to the ancient Little Bishop's Wood has doubtless helped in this colonisation process and the same is true of the large recent woodland component of Ch139 Bassetts Wood, Little Baddow. Many of the woodland LoWS have small stands of recent woodland that stand immediately adjacent to ancient stands, with the requirement for inclusion that they have a good structure of canopy, sub-canopy and diverse ground flora.

3.3.36 The majority of these woods have been coppiced, many for centuries, and this has created unique conditions that boost woodland biodiversity as different animals and plants exploit the different conditions of different aged stages of regrowth. However, with the almost total collapse of coppicing as a woodland craft, the unmanaged coppice stools have now invariably grown into multi-stemmed trees that cast a dense shade. This suppresses the understorey and ground flora and is of great concern for the conservation of our woodland heritage.

3.3.37 Relatively new broad-leaved woodland plantations can attain importance, as witnessed by the inclusion of Ch82 Crowsheath Complex, Downham and in the future, newer planting schemes, such as that undertaken by the RHS at Hyde Hall near Rettendon might also be considered.

3.3.38 Wet Woodland

This woodland type is generally taken to comprise two types in Essex: stands of old, arguably ancient, Alder growing in permanently water-logged soils; and stands of willows, often growing as fringing habitat around water bodies. Both types have their intrinsic wildlife interests. Good examples of wet, spring-fed Alder wood can be found in Ch76 Chelmer Mosaic, Broomfield, but it also occurs as smaller stands in Sites such as Ch38 Little and Long Woods, Stock; Ch49 Swan Wood, Stock; Ch100 Mann/Parson's Wood, Great Leighs; and Ch118 Hall Wood, Danbury.

3.3.39 Wood-Pasture and Parkland

This habitat type can include some of the most ancient habitats in the county, after ancient woodland itself. The combination of large standards trees grown in the open, with species-rich grassland below provides good habitat conditions for a wide variety of wildlife and some of the older 'veteran' trees can support some of the country's rarest insects. A good example of both the habitat type and its invertebrate fauna is Ch39 Hylands Park, Chelmsford where the Golden Hoverfly (*Callicera spinolae*), UK Red Data Book 1 (RDB1), and the saproxylic hoverfly *Psilota anthracina* (RDB2) have been recorded.

3.3.40 Fine veteran trees can also be found at Danbury Park, which is also important for the lowland acid grassland below the trees. At this site there is a potential conflict of interest, with another HPIE (lowland mixed deciduous woodland) in the form of Pedunculate Oak and Hawthorn scrub woodland developing widely, engulfing the old parkland trees and shading them out. In such circumstances it is argued that the ancient status of the parkland trees should prevail and extensive recent woodland growth should be cut back to restore the parkland habitat.

3.3.41 Veteran trees can retain ecological interest in the absence of a grassland cover below and this might be the case with the ChPLoWS3 Skreens Park, Roxwell, a potential LoWS that would require survey work to evaluate the value of the trees present.

3.4 County Context

3.4.1 Essex has 14 Local Authority/Unitary areas, most of which have had a LoWS review within the last 6 years. They range from the very small, highly urbanised Harlow, Southend-on-Sea and, to a lesser extent, Castle Point up to the large, agriculture-dominated expanses of Uttlesford and Braintree districts. These differing landscapes can distort attempts to analyse which areas are

particularly rich or poor in terms of their LoWS resource, but the following section is a broad summary of the picture as it stands.

3.4.2 The following table provides the most up to date data for each of the Local Authority areas in Essex. The local authorities have been listed in order of increasing size and two aspects of the data have been plotted in Figures 3.

	No. of LoWS	**Area of LoWS (hectares)**	**Area of District etc. (hectares)**	**% land as LoWS**
Harlow	42	300.0	3053.6	9.82
Castle Point	40	872.2	6317.8	13.81
Southend	9	138.7	6785.0	2.04
Basildon	54	1068.7	11044.5	9.68
Brentwood	147	1139.8	15311.7	7.44
Thurrock	70	1074.2	18431.9	5.83
Rochford	39	359.6	26341.7	1.37
Epping	222	1680.8	33898.8	4.96
Chelmsford	171	1662.7	34299.8	4.84
Colchester	173	2070.0	34871.8	5.94
Tendring	125	1216.8	36506.8	3.33
Maldon	89	1066.6	42659.7	2.5
Braintree	251	1965.0	61170.8	3.21
Uttlesford	281	1701.0	64118.2	2.65

3.4.3 Figure 3, below, is a plot of the area of LoWS for each local authority area against the percentage of its land that has been identified as LoWS.

3.4.4 This is perhaps a crude relationship, but on the whole large districts are dominated by arable landscapes which tend to dilute the impact of the presence of high quality semi-natural habitats. Smaller districts often have habitats associated with their urban environments and sites such as parkland or country parks help to maintain a relatively high percentage of LoWS habitat.

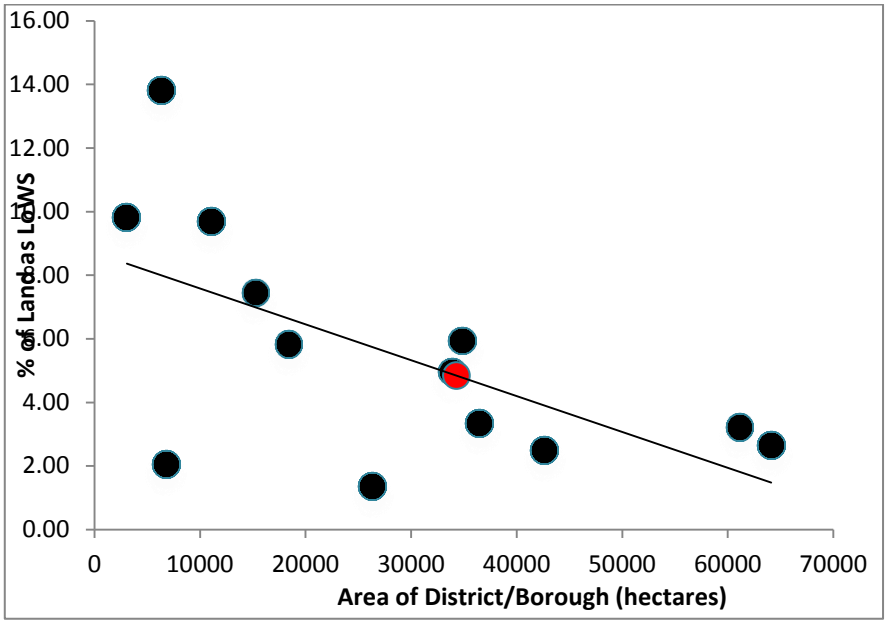

Figure 3. Plot to show relationship between size of local authority area and percentage of land designated as LoWS. Chelmsford highlighted in red.

3.4.5 The regression line provides a reasonable fit to this relationship, although there are three exceptions to this: the two very low plot points are Southend-on-Sea Borough, which is excessively dominated by the urban environment, and Rochford where its open countryside is dominated by the Foulness SSSI which is excluded from the LoWS network. Castle Point is the very high LoWS to total area ration (nearly 14%), reflecting some large marshland sites on Canvey Island, plus Benfleet Downs and several large ancient woods within the urban development.

3.4.6 Chelmsford data, plotted in red, show that broadly speaking the extent of LoWS habitat is what one might expect given the size of the local authority area.

3.5 The Future for Planning and Nature Conservation in Chelmsford

3.5.1 LoWS Administration

The Local Wildlife Site network should not be a static system, as has tended to be the case in Essex in the past. Until this review, the majority of sites and the information held about them had largely been left static since 2004, since when there have been considerable changes in the agricultural environment and the quantity and quality of information regarding the species and habitats present for the county. Local Wildlife Site policy, particularly in respect to site selection criteria, might also evolve further in response to national guidance.

3.5.2 Sites themselves change. Scrub encroaches onto grassland, grazing management can change a site quite quickly and brownfield areas can appear and disappear very rapidly. Against this inherent fluidity in the LoWS system and the habitats it seeks to conserve, is the pressure to develop a Local Plan that has a longer and longer shelf life. The Chelmsford Local Plan currently in preparation is intended to cover the period to 2036. Once adopted, the Local Plan will include policies that seek to protect sites of international, national, regional and local importance, including LoWS. These will also be identified on the Local Plan Proposals Map and policies will seek to ensure appropriate protection. It is acknowledged that LoWS will change over time and potential new LoWS may come forward before a Local Plan is reviewed. It would therefore be desirable to have a quinquennial review of each local authority, either in total every five years or covering one fifth of the area each year over the five years, as resources permit. Amendments to the LoWS schedule could then be easily published via appropriate websites.

3.5.3 The vital first step has always been to make land owners aware that part of the land in their guardianship is a prized nature conservation resource. Many will be already aware of this fact and cherish the wildlife on their land, but for others it may be a chance to look at their land in a new light. Identifying owners is a long and sometimes complex process. Whilst some landowners were encountered during the LoWS survey work, the powers of entry onto land afforded EECOS surveyors by the Council has meant that many sites have been assessed without that initial contact.

3.5.4 There is, therefore, a real need to get LoWS owners "on board" in terms of explaining the LoWS project, its implications and opportunities and organising offers of help in achieving appropriate management for the Sites. To that end, the Essex Wildlife Trust's Local Wildlife Sites Officer will be working alongside local authorities to identify owners, undertake initial meetings to discuss the LoWS project and to encourage the adoption of simple management strategies to achieve positive conservation management for each site.

3.5.5 Monitoring of management outcomes and Site condition is also important. Ideally, each Local Wildlife Site should be visited every year, to monitor its condition, identify threats and to increase our knowledge of the plants and animals present.

3.5.6 Planning

In March 2012, national government guidance on local planning changed, with the National Planning Policy Framework (NPPF) replacing a suite of Planning Policy Guidance Notes and Statements (PPGs and PPSs).

3.5.7 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.

3.5.8 The Framework 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 bio-diversity 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 3.2, above, and in turn Living Landscapes could establish a framework in which the principles of NPPF can be demonstrably applied.

3.5.9 One of the striking features of NPPF is its aim to encourage sustainable development by encouraging a presumption in favour of such planning applications claiming to be sustainable. This brings with it a number of risks. The LoWS network has in the past been promoted as the minimum critical network of sites necessary to maintain the biodiversity of any given area. As such, one might conclude that if a proposed development does not directly impinge upon a LoWS then there will be no net loss of biodiversity and therefore, to that extent, the project is "sustainable". However, as alluded to in Section 1.2, there will be many pockets of land with more localised wildlife interest, that do not meet LoWS selection criteria, that contribute to the local biodiversity resource of the locality. Many such pieces of land may support legally protected species, such as bats, Dormice, Great Crested Newts, reptiles, nesting birds, Badgers or Water Voles and Otters in a water course. There is a legal requirement for developers to

avoid harming these protected species and their places of shelter, and any loss of local populations would cause a net loss in biodiversity and, as such, be deemed unsustainable.

3.5.10 Furthermore, some developments, if placed immediately adjacent to a sensitive LoWS might still harm the biodiversity and ecological stability of a Site; habitat fragmentation and/or ecological isolation are likely to occur. Additional impacts might come from increased trampling from new local residents or children at play, light pollution from inappropriate street lighting or changes to local drainage patterns and ground water levels.

3.5.11 As a result, it remains imperative that local planning authorities require potential developers to submit an appropriate ecological assessment of their land prior to any planning decision being taken. As a minimum, a biodiversity checklist, with self-assessment documents or ecological assessments, is required upon submission with all minor applications (excluding householder). Larger, strategic developments require a forthcoming site-appropriate ecological assessment and can often be discussed during pre-application advice. In determining an appropriate ecological assessment, the potential effects to ecological features, habitats and species need to be considered. If there are doubts as to whether or not the scheme is sustainable, professional ecological advice should be sought and, if appropriate, a mitigation plan drawn up in order to secure the future biodiversity of the site. NPPF para. 173 notes that such obligations should be proportionate to the matter in hand so that the ability of a site to be viably developed is not compromised.

3.5.12 In some circumstances, on-site mitigation and/or compensation for ecological impacts may not be possible. In order to address this issue, the notion of biodiversity offsetting has been proposed. Biodiversity off-sets are projects designed to give biodiversity benefits to other areas of land to compensate for losses at a development site. It is important to stress that this option should be last, not first, choice, to be attempted only when ecological damage cannot be avoided or, if unavoidable, mitigated on-site. It is intended that biodiversity offsetting will an option available to developers to fulfil their obligations under the planning system's mitigation hierarchy. A pilot study between 2012 and 2014 included Essex County Council as one of six trial authorities. The preliminary findings were variable, with considerable obstacles identified in the process, with few projects actually being adopted during the trial period, although the overall conclusion was that some good progress was made during the pilot study.

3.5.13 It is likely that off-setting will remain a favoured tool by central government to help ease conflicts between development desires and nature conservation objectives. Essex Wildlife Trust would urge local authorities to seek resolution to such issues through the following hierarchy:

1. Avoidance – can the proposal be re-designed so that the identified ecological impact can be avoided entirely?
2. Mitigation – a reduction in the severity of the impact, through the design process;
3. Compensation – ideally on-site, such as the creation of a green roof on a building to compensate for the loss of ground vegetation or alternative tree/hedge planting where other such habitats are to be lost. As a last resort, off-site compensation enters the realm of biodiversity off-setting, with complex debates about how the biodiversity value of the land to be lost should be measured and also the scale and quality of the proposed "receptor" site.

3.5.14 It should also be stressed that the role of a local authority should not be restricted to minimising or preventing environmental degradation through the planning process. The NPPF (para. 109) refers to the planning system providing net gains in biodiversity, thereby contributing to enhancement of the natural environment. Off-setting may have a role to play in this respect, with the onus of responsibility on the developer or their agents to deliver appropriate schemes. Local planning guidance for developers can ensure this is adopted at an early stage so as to not place an undue burden on the limited resources of local planning resources, and can take quite simple forms such as ensuring that new buildings have bat roost structures even when no such roosts have been lost through the development or planting a greater length of hedgerow than that lost. The various environmental accreditation schemes run by the Building Research Establishment (such as their Environmental Assessment Methodology – BREEAM) provides a structure through which developers can aspire to the minimum of no net biodiversity loss, but also achieve recognition of biodiversity gain. Promotion of such schemes by local planning authorities is also a cost-effective way of achieving the ideals of NPPF para. 109.

3.5.15 This responsibility can also be dispensed at the largest scale of strategic planning across an entire local authority area, by embracing the Living Landscapes ethos explained in sections 3.2 and 3.5.3 (below). However, it can also be applied to every planning application considered by local authority officers, by having an input into landscaping proposals, the extent, location and species used (native versus non-native) and other habitat creation possibilities.

3.5.16 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 may affect ecological features to have an assessment proportionate to the scale of the scheme and its potential impacts. If this is thought to be low, a Preliminary Ecological Appraisal (PEA) is likely to be sufficient but, in the likelihood of a significant effect, an Ecological Impact Assessment (EcIA) would be required. An appropriate scoping exercise will help determine which of these is the more relevant approach. These documents should conform to professional guidance, as set out by the Chartered Institute of Ecology and Environmental Management (CIEEM) and work should be undertaken by professional ecologists. They should include relevant material, such as 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, compensation or enhancement that is proposed. Where appropriate, further survey work should also be recommended.

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

3.5.18 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 former UK Biodiversity Action Plan is capable of being a material consideration (para 74) as is the presence of species protected by law (para. 99). Furthermore, the Natural Environment and Rural Communities Act 2006 (NERC ACT) imposes an obligation on all public bodies, including local authorities, to have regard to the conservation of biodiversity, particularly of those species and habitats identified as being of principal importance. Section 41 of the Act requires a list to be published that identifies such species and habitats, and for England these are now referred to as Species and Habitats of Principal Importance in England. The presence of these species and habitats is therefore material to the determination of planning applications. 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.

3.5.19 Part of this consideration relates to the Conservation of Habitats and Species Regulations 2010 (as amended), 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."

3.5.20 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.

3.5.21 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. As a first step towards being aware of LoWS within adjacent local authority areas, the citation maps in Appendix 2 includes any closely adjacent LoWS occurring within all the adjacent local authority areas.

3.5.22 <u>Living Landscapes</u>

This theme of over the border awareness and co-operation is embraced by the Living Landscape initiative. Every local planning authority has a role to play in the realisation of the Living Landscapes project. As noted above, para. 117 of NPPF states that biodiversity planning should

be at a landscape scale, with a need to appreciate what is going on in immediately adjacent local authority areas.

3.5.23 Nature Conservation

There are a number of threats to the ancient coppices of Chelmsford: neglect, deer browsing damage and trees disease, especially Ash Die-back. Even as single-stemmed standard trees, Hornbeam casts a dense shade. When coppice stools become overgrown, forming several tree-sized trunks on each crown, then this is exacerbated. The dense shade cast by a canopy dominated by overgrown coppice stools has a significant impact on the shrub and ground flora layers, so that today there are many woods where Bluebell is the only ground vegetation able to thrive, on account of its early flowering, before the canopy has come into full leaf. The effect is similar, though perhaps less severe, in woods where the main coppice comprises species such as Hazel, Ash and Field Maple.

3.5.24 The simple answer to this problem would be to resume coppicing, but this runs foul of several opposing factors in the form of market forces and the impact of deer browsing. Deer browsing would eat back any regrowth from newly cut coppice stools without taking considerable precautions to prevent it. In the overgrown coppices, where all they can reach is the under-shrubs and ground flora, then this is eaten out. The result is a rather stark woodland, as illustrated in Figure 3, below.

3.5.25 Managing a deer herd in one woodland, with the hope of coppicing it thereafter is not an option: deer will simply move in from the surrounding countryside. The problem facing many of the ancient woods of Essex is an excellent example of why Living Landscapes need to be made to work. Excessive deer browsing is spoiling the wildlife appeal and visual amenity of the woods, it prevents woodsmen from earning a living by managing and selling coppice materials (for example) and browsing may also damage the commercial value of larger timber trees if their bark is damaged as saplings. The solution will come only by managing deer herds at a landscape scale and managing and marketing woodland produce at a landscape scale.

Fig. 3. Hornbeam coppice stripped of ground flora and shrubs by Fallow Deer browsing

3.5.26 The grassland resource is very unevenly distributed across Chelmsford. Around Chelmsford City there are several large sites where good grassland can be enjoyed in locations largely accessible to the public. These include Hylands Park, the Chelmer Valley LNR and the Essex Wildlife Trust's Little Waltham Meadows nature reserve just to the north. Equally, around the Danbury Ridge are areas of good grassland with public access (e.g. Danbury Country Park). Away from these sites, however, good quality grassland is becoming largely restricted to a few ancient churchyards and road verges. Floristically interesting grasslands can be created that will quickly become valued resources for flying insects, thereby enriching the whole food chain in the nearby ecosystems. Such habitat could, and should, be created in all medium to large scale developments to complement areas of greensward where recreation is the priority. Agri-environment schemes are doing a lot to create flower-rich headlands within arable landscapes – another facet of breathing new life into Living Landscapes.

4. ADDITIONAL SOURCES OF INFORMATION

Information from the Essex Wildlife Trust concerning the county's LoWS system:

http://www.essexwt.org.uk/protecting-wildlife/local-wildlife-sites
http://www.essexwtrecords.org.uk/dataset/LoWS

National guidance from the central Wildlife Trusts office:

http://www.wildlifetrusts.org/localwildlifesites

Chelmsford Biodiversity Action Plan 2013-2017

http://www.chelmsford.gov.uk/sites/chelmsford.gov.uk/files/files/files/documents/files/Chelmsford%20Biodiversity%20Action%20Plan%202013-18.pdf

Geological Conservation

www.geoessex.org.uk

Essex Red Data List

http://www.essexfieldclub.org.uk/portal/p/Essex+Red+Data+List

Living Landscapes

http://www.essexwt.org.uk/living-landscapes