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The Historic Landscape Characterisation Report for Essex, Volume 4

Appendices

February 2011

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Essex County Council

The Historic Landscape Characterisation Report for Essex

February 2011

Compiled by Alison Bennett

Cover illustration: Aerial view of Cressing Temple

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This document has been prepared by Alison Bennett, Team Leader of the Essex Historic Environment Record, with contributions from Maria Medlycott, Paul Gilman, Lynn Dyson-Bruce and Adrian Gascoyne, and funded by English Heritage and Essex County Council. The layout has drawn on a wide range of previous Historic Landscape Characterisation (HLC) reports, particularly the Buckinghamshire, Lancashire, Hertfordshire and Cheshire HLC reports.

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Copyright Information

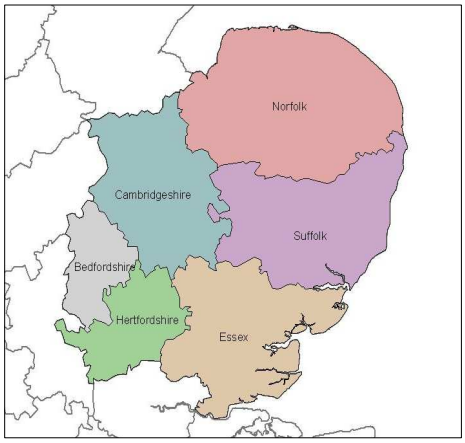
Executive Summary

The county of Essex is today subjected to enormous pressures from housing and transport infrastructure developments, but many historic elements can be seen to survive in the landscape. A Historic Landscape Characterisation (HLC) project has therefore been carried out as part of the English heritage national programme to assess the rural landscape in terms of its historic origins.

View of the Stour valley

The aim of the project in Essex was to *characterise the distinctive historic dimension* of the current rural landscape. This has been carried out as part of, and using the methodology developed for, the East of England Regional HLC project. The regional project is sponsored by English Heritage and covers the six counties of Suffolk, Norfolk, Essex, Hertfordshire, Bedfordshire and Cambridgeshire, plus the unitary authorities within the region.

In Essex desk-based research using modern and historic mapping sources was carried out to identify and map the historic character of the landscape through the application of defined Historic Landscape Character types. The result of the project is a comprehensive Geographic Information System (GIS) which provides a complete coverage of the county with information on current and past landscape origins.



The resulting information has, in turn, formed an important element in Essex County Council's Historic Environment Characterisation projects. This complements the archaeological and historic building information to form a product designed to serve as a tool in the creation of Local Development Frameworks by Local Government Planners.

This volume of the report contains the appendices, covering a description of the methodology, database and the terminology developed. Volume 1 presents the background to the HLC project with an overview of the Essex Landscape and its development. Volumes 2 and 3 summarise the results from the project. It is also intended to place this report and appendices onto our web pages at www.essexcc.gov.uk.

APPENDIX A: METHODOLOGY

1. Introduction

The Essex Historic Landscape Characterisation (HLC) project is part of a regional project covering the six counties (Hertfordshire, Essex, Suffolk, Norfolk, Cambridgeshire and Bedfordshire) of the East of England Region, This was the only regionally based HLC project, and forms part of the national HLC programme sponsored by English Heritage.

The origins of HLC as an evolving methodology for assessing historic landscapes lie in the UK Government White Paper '*This Common Inheritance*' (1991). English Heritage was invited to prepare a list of landscapes of historic importance, similar to its *Register of Parks and Gardens of Special Historic Interest* (English Heritage 1991). Appropriate methodologies were assessed (Fairclough *et al* 1999) and it was concluded that a more holistic approach was needed rather than a "selective register" (Fairclough 1994). Cornwall was the first county to undertake a Historic Landscape Characterisation in 1994, and from there it has become a national programme.

Within this national HLC framework first Oscar Aldred, followed by Lynn Dyson-Bruce as regional co-ordinator from 1999 to 2005, developed a single but evolving methodology for the East of England Region recording and illustrating changes within the historic landscape, especially over the past 150 years. HLC represents a shift from monument and building designations to a view of the whole landscape. The HLC approach makes it possible to understand the development of the entire landscape in historic terms, and from this assessment to identify the diverse patterns which make its historic landscape distinctive. By adopting a regional approach, it will be possible to address academic and management questions and issues across the region. To support this Lynn Dyson-Bruce compiled a User Guide for the project, in two versions, one for ArcView users and one for MapInfo users. The User Guide for Hertfordshire can also be used with the Essex HLC shapefiles and attribute data.

2. General method

Historic Landscape Characterisation in Essex started with an assessment of historic and current mapping, mainly the Ordnance Survey (OS) First Edition, 1950 OS series, and modern digital mapping (OS Landline). In certain parishes earlier maps were also consulted where this would aid the interpretation of the landscape. It attributed various HLC Types to blocks of landscape and the data was entered into a Geographic Information System (GIS). Where changes in landuse were observed from the source maps, the previous HLC type was also entered into the GIS database. This 'relict' data gives a time depth to the data, and allows the degree of change in the landscape to be calculated.

HLC Types were defined, based on either the shape and pattern of features, or on landuse. The majority of Essex consists of enclosed land and the study of the shape and pattern of field boundaries helps determine the date and origin of these fields. For example, the regularly-shaped planned fields from parliamentary enclosure in the 18th to 19th centuries can be distinguished from smaller, irregular fields which are considered to represent earlier landscapes. Landuse also defines some types of landscape and can reflect historical elements, such as duck decoy ponds or oyster beds.

3. HLC Types

54 HLC Types are used in the Essex HLC (See Appendix B). These are the same as those used in the Hertfordshire HLC, which were derived from the Suffolk types. Suffolk was the first HLC project within the East of England region. Each HLC type represents a combination of field form, land use and interpretation. These can be loosely grouped together into 24 Broad Groups which aids analysis of patterns and themes in the landscape.

Broad Code HBSMR	Broad Code	HLC type	Code	HLC Code
Enclosed Land				
Pre-18th century enclosure	AEF	unenclosed common arable	ca	AEF-ca
Pre-18th century enclosure	AEF	coaxial enclosure	cf	AEF-cf
Pre-18th century enclosure	AEF	dual-axis - rectilinear 'co-axial' fields	df	AEF-df
Pre-18th century enclosure	AEF	dual-axis - sinuous 'co-axial' fields	ds	AEF-ds
Pre-18th century enclosure	AEF	irregular enclosure	if	AEF-if
Pre-18th century enclosure	AEF	rectilinear enclosure	rf	AEF-rf
Pre-18th century enclosure	AEF	irregular sinuous enclosure	sf	AEF-sf
Marginal	MAR	unimproved rough pasture	rp	MAR-rp
18th -19th century enclosure	LEF	piecemeal enclosure by agreement	le	LEF-le
18th -19th century enclosure	LEF	formal style parliamentary enclosure	pe	LEF-pe
18th -19th century enclosure	LEF	piecemeal style parliamentary enclosure	ps	LEF-ps
20th century agriculture	TEF	boundary loss	bl	TEF-bl
20th century agriculture	TEF	boundary loss - with relict elements	br	TEF-br
20th century agriculture	TEF	"20th C" enclosure	te	TEF-te
Miscellaneous	MIS	mixed origin	mo	MIS-mo
Inland - managed wetland	IMW	enclosed meadow	mp	IMW-mp
Inland - managed wetland	IMW	water meadow	wm	IMW-wm
Open Land				
Commons, wastes, heaths	CWH	commons with a built margin	cb	CWH-cb
Commons, wastes, heaths	CWH	commons with an open margin	cm	CWH-cm
Commons, wastes, heaths	CWH	green	gn	CWH-gn
Commons, wastes, heaths	CWH	heath	ht	CWH-ht
Woodland				
Woodland	WDS	ancient woodland	aw	WDS-aw
Woodland	WDS	19th -20th century woodland plantation	wp	WDS-wp
Parks and Gardens				
Parks, gardens, recreation	PGR	informal parkland	ip	PGR-ip
Parks, gardens, recreation	PGR	leisure / recreation	tl	PGR-tl

Broad Code HBSMR	Broad Code	HLC type	Code	HLC Code
Coastal				
Coastal - drained enclosure	CDF	drained reclamation - curvilinear - pre-18th C	dc	CDF-dc
Coastal - drained enclosure	CDF	drained reclamation - rectilinear – 19th/20th C	dr	CDF-dr
Coastal - managed wetland	CMW	unimproved marine marsh or brackish fen	mm	CMW-mm
Coastal - managed wetland	CMW	saltings	sa	CMW-sa
Coastal - managed wetland	CMW	unimproved intertidal	ui	CMW-ui
Water features	WAT	sea defences	sd	WAT-sd
Settlement				
Built up areas - historic	BUH	religious institutions	ri	BUH-ri
Built up areas - historic	BUH	built-up areas - historic	bh	BUH-bh
Built up areas - modern	BUM	built-up areas - urban development	ba	BUM-ba
Built up areas - modern	BUM	hospital, school, university	hs	BUM-hs
Built up areas - modern	BUM	plotlands	pl	BUM-pl
Industrial				
Mineral	MIN	disused mineral extraction	de	MIN-de
Mineral	MIN	mineral extraction	me	MIN-me
Mineral	MIN	restored land	rl	MIN-rl
Industry	IND	disused industrial	di	IND-di
Industry	IND	industrial	in	IND-in
Horticulture				
Horticulture	HOR	allotments	ag	HOR-ag
Horticulture	HOR	orchard	at	HOR-at
Horticulture	HOR	nursery with glass house	ng	HOR-ng
Military				
Military	MIL	disused post-medieval military	dm	MIL-dm
Military	MIL	military airfield	ma	MIL-ma
Military	MIL	post-medieval military	pm	MIL-pm
Landuse				
Historic earthwork	EAR	historic earthwork	he	EAR-he
Water features	WAT	water reservoir	wr	WAT-wr
Communications	COM	airfield - civilian	ap	COM-ap
Communications	COM	motorway, railway	mr	COM-mr
Miscellaneous	MIS	duck decoy pond	dd	MIS-dd
Miscellaneous	MIS	rabbit warren	rw	MIS-rw
Miscellaneous	MIS	stud farm	st	MIS-st
Inland - managed wetland	IMW	watercress beds	wb	IMW-wb
Coastal - managed wetland	CMW	oyster beds	ob	CMW-ob

4. Resources

To ensure consistency of sources across the East of England region, modern and historic mapping, and other national datasets formed the core, supplemented by aerial photos and selected local sources. The sources used in Essex are set out in the table below, ranked in descending order of the number of polygons using that source within the project:

Source code	Source Description	Date	Type	Origination
N	Ordnance Survey 1st Edition	1872-1884	Digital	Landmark
L	Ordnance Survey Landline	2001/2	Digital	Ordnance Survey
R	Ordnance Survey 1:10000 raster	1990's-2006	Digital	Ordnance Survey
J	Ordnance Survey 1950s	1950s	Paper	Ordnance Survey
C	Chapman and Andre	1777	Paper	In house
Y	Parks and Gardens, Urban Areas	2000	Digital	In house
W	Ancient Woodlands	2000	Digital	English Nature
T	Tithe Maps	1840s	Paper	Essex Record Office
U	Enclosure Maps	1779-1895	Paper	Essex Record Office
A	Aerial Photos	2000	Digital	In house

5. Methodology process

The data was initially analysed and marked up on copies of the 1950's OS 1:25,000 scale maps. This scale was used as the smallest where field boundaries were depicted. This was compared with the modern digital OS Landline and the late 19th-century OS 1st edition 6", to give three distinct time horizons. In certain cases, where the field morphology was very complex, additional map sources were consulted, such as the Tithe and Enclosure maps, to further understand the complexity.

Digitising was carried out in ArcView 3.2 at a scale of 1:10,000. The urban areas were added first. Polygons were then created, to give a seamless cover to the county. Attribute data defining the current and relict HLC types for each polygon, and the sources for those, was entered via an on-screen template as digitising progressed. This exercise was completed in 2004, but was then subjected to a review and re-classification of some of the poygons.

The whole project was transferred to ArcGIS 8.3 when ECC upgraded their GIS in 2003. This resulted in the date of capture for the HLC polgons being reset to 2003.

One of the last tasks that Lynn Dyson-Bruce carried out before her departure from the project was to add the Broad Type to each record in the attribute table. This paved the way for the HLC to be imported into the HBSMR software used by ECCHEB for the HER in 2006.

The analysis for this report was carried out by Alison Bennett between 2007 and 2008. This brought to light some inconsistencies in the attribute data, some of which have been addressed and others will be addressed in the future. Where appropriate, these are mentioned in the project results to aid understanding of the HLC.

6. Metadata / Attribute data

All the attributes of each HLC type are held as metadata in a GIS table. The table below summarises each field. Blue rows are mandatory, pink are optional, and green are required for the HBSMR HLC module

Data Field Name	Explanation of Database Codes	Example
REC_NO	Unique reference number, which gives each polygon and associated record a unique identifier	126
CODE_C	Code for current landscape type	bl
SOURCE_C	Code for primary source for Code_C	L
CODE_R1	Code for first relict landscape type in historic sequence, but still evident in the landscape	te
SOURCE_R1	Code for primary dated source for CODE_R1	J
CODE_R2	Code for second relict landscape type in historic sequence, but still evident in the landscape	pe
SOURCE_R2	Code for primary dated source for CODE_R2	N
CODE_R3	Code for third relict landscape type in historic sequence, but still evident in the landscape	ca
SOURCE_R3	Code for primary dated source for CODE_R3	E
CODE_PRIOR	Code for general relict landscape type in historic sequence, but still evident in the landscape	cf
SOURCE_P	Code for primary dated source for CODE_PRIOR	N
PR	Refers specifically to the original number of fields as seen on the First Edition map, in a field that exhibits field boundary loss. A numeric field to enable statistical analysis	12
HLA_CODE	Linking code with Suffolk HLC	1.1
NAME	Name of e.g. town/farm/field/wood	Parsonage Field
TEXT	Free text providing additional information about type or polygon	Pecked lines showing ca strips
AREA	Spatial area of the polygon, in square metres	2465
PERIMETER	Length of the perimeter edge of polygon, in metres	5432
DESC_CC	Text descriptor of landscape type for current CODE_C	20th Century boundary loss
DESC_SC	Text descriptor of source for current SOURCE_C	OS LandLine
DESC_CR1	Text descriptor of landscape type for first relict CODE_R1	20th Century enclosure
DESC_SR1	Text descriptor of source for SOURCE_R1	OS 1950
DESC_CR2	Text descriptor of landscape Type for second relict CODE_R2	Parliamentary Enclosure
DESC_SR2	Text descriptor of source for SOURCE_R2	First Edition
DESC_CR3	Text descriptor of landscape type for third relict CODE_R3	Common Arable
DESC_SR3	Text descriptor of source for SOURCE_R3	Estate Map
SCALE	Scale digitised – max scale of 1:10,000	1:10,000
DIGITISER	Person encoding, attributing & digitising data	Lynn Dyson-Bruce
DATE_DIGIT	Period of mapping	2001
COUNTY	County HLC covers	Essex
DATA	Name of type of project	Historic Landscape Characterisation
Broad_Group	Text descriptor of current Broad Code	Industry
Broad_Code	Code for current Broad Group	IND
HLC_code	Combined current Broad Group code and HLC Type code	IND-di
Brdg_r1	Text descriptor of first relict Broad Code	Military
Brdc_r1	Code for first relict Broad Group	MIL
HLC_c_r1	Combined first relict Broad Group code and HLC Type code	MIL-ma
Brdg_r2	Text descriptor of second relict Broad Code	Woodlands
Brdc_r2	Code for second relict Broad Group	WDS
HLC_c_r2	Combined second relict Broad Group code and HLC Type code	WDS-wp
Brdg_r3	Text descriptor of third relict Broad Code	Marginal
Brdc_r3	Code for third relict Broad Group	MAR
HLC_c_r3	Combined third relict Broad Group code and HLC Type code	MAR-rp

APPENDIX B: GLOSSARY OF HLC TYPES

Here follows the complete list of HLC types used within the Essex HLC, arranged by Broad Group. The table below shows how the glossary is structured. The entries follow the format of the template below. For more detailed information on each HLC type and Broad Group please see Section 6 of the main report.

Report Group	*HLC Broad Group Name*	*Broad Code*	*HLC Type codes*
Enclosed Land	Pre-18th century enclosure 18th to 19th century enclosure 20th century agriculture Inland managed wetlands Miscellaneous Marginal	AEF LEF TEF IMW MIS MAR	ca, cf, df, ds, if, rf, sf le, pe, ps, bl, br, te mp, mw, wm mo rp
Open Land	Commons, Wastes, Heaths	CWH	cb, cm, gn, ht
Woodland	Woodlands	WDS	aw, wp
Parks and Gardens	Parks and gardens	PGR	ip, tl
Coastal	Coastal drained enclosure Coastal managed wetlands	CDF CMW	dc, dr mm, sa, ui
Settlements	Built-up areas - historic Built-up areas - modern	BUH BUM	ri, bh ba, hs, pl
Industrial	Mineral Industry	MIN IND	de, me, rl di, in
Horticulture	Horticulture	HOR	ag, at, ng
Military	Military	MIL	dm, ma, pm
Land use	Historic Water features Communications Miscellaneous Inland managed wetlands Coastal managed wetlands	EAR WAT COM MIS IMW CMW	he wr ap, mr, ww dd, rw, st wb ob

Report Group – Broad Group

HLC type (Broad Group and type codes)

GIS Legend

Total Area:	Total area of HLC type in ha	% of total area of Essex mapped	**Relict Area:**	Total relict area of HLC type in ha	**Av. Polygon:** Average size in ha
Polygons:	Number of GIS polygons	% of total polygons	**Relict Polygons:**	Number of GIS polygons	**Occurrence:**

Very rare (<1%)
Rare (1-5%)
Occasional (5-10%)
Common (10-25%)
Abundant (25-50%)
Dominant (>50%)

Enclosed land – Pre-18th century enclosure

Pre-18th Century Unenclosed Common Arable (AEF-ca)

GIS Legend

Total Area:	289.61 ha	0.08%	**Relict Area:**	11650.71 ha	**Av. Polygon:**	11.58 ha
Polygons:	25	0.06%	**Relict Polygons:**	461	**Occurrence:**	**Very rare**

Description:
These are former areas of arable which were held in common, traditionally farmed in strips with multi-ownership or tenancy, on a rotational system. They are usually associated with nucleated settlement, i.e. the classic Midland Field System. These fields are probably early medieval in origin, and remained in use until the 19th century. They are sometimes marked on the OS 1st Edition with pecked strips, or annotated on earlier maps as Common Fields, or named.

Pre-18th Century 'Co-axial' Enclosure (AEF-cf)

GIS Legend

Total Area:	2575.03 ha	0.7%	**Relict Area:**	6072.77 ha	**Av. Polygon:**	7.78 ha
Polygons:	331	0.78%	**Relict Polygons:**	260	**Occurrence:**	**Very rare**

Description:
These form a distinctive boundary pattern of fields with roughly parallel boundaries, sinuous in form with irregular subdivisions, forming an irregular brick-like sequence. These cover large areas, often running up from a watercourse and across valleys. They are not dependent or reflective of topography. Woodlands may be a significant feature within the field pattern. It is thought these fields were predominantly grazing areas, hence their greater survival than arable fields. It is suggested that these fields date from the Anglo-Saxon or early medieval periods.

Dual-Axis Rectilinear 'Co-axial' Fields (AEF-df)

GIS Legend

Total Area:	19294.69 ha	5.22%	**Relict Area:**	24392.77 ha	**Av. Polygon:**	8.2 ha
Polygons:	2352	5.54%	**Relict Polygons:**	1337	**Occurrence:**	**Occasional**

Description:
Dual-axis or 'Dengie-form' fields are similar to co-axial fields but exhibit dual axes, meaning their field boundaries run in two directions, roughly at right angles to each other. The fields are small & irregular in form, with corners being slightly offset, sinuous rather than geometrically regular. They usually run parallel with or across the contours of the land, despite the land being relatively flat. This type of field merges into co-axial or sinuous fields at the margins. Their period of origin is recognised as being old, but they are not of a single period. Some may be Roman or older in date, however, Rippon (1991) has argued that the particular concentrations in the Southend and Dengie peninsulas may have their origin in the middle to late Saxon period.

Dual-Axis Sinuous 'Co-axial' Fields (AEF-ds)

GIS Legend

Total Area:	1710.66 ha	0.46%	**Relict Area:**	2459.37 ha	**Av. Polygon:**	8.47 ha
Polygons:	202	0.48%	**Relict Polygons:**	156	**Occurrence:**	**Very rare**

Description:
These fields are similar to co-axial fields but exhibit dual axes, meaning their field boundaries run in two directions, roughly at right angles to each other. The fields are small & irregular in form, with corners being slightly offset, sinuous in form in both directions. They usually run parallel with or across the contours of the land, despite the land being relatively flat. They are not as uniform in shape as dual-axis rectilinear (AEF-df) or co-axial (AEF-cf) types. Their period of origin is recognised as being old, but they are not of a single period. Some may be Roman or older in date, however, some may have their origin in the middle to late Saxon period (Rippon 1991).

Enclosed land – Pre-18th century enclosure

Pre-18th Century 'Irregular' Enclosure (AEF-if)

GIS Legend

Total Area:	65337.99 ha	17.69%	**Relict Area:**	73626.09 ha	**Av. Polygon:**	7.63 ha
Polygons:	8558	20.17%	**Relict Polygons:**	5286	**Occurrence:**	**Common**

Description:
Irregular enclosures vary considerably in size and shape, forming both arable and pasture, and are widespread though more common to the north and west of the county. They are probably the result of piecemeal enclosure and may originate from the medieval period or earlier. Morphologically they tend to have sinuous edges and offset corners.

Rectilinear Enclosure (AEF-rf)

GIS Legend

Total Area:	20.04 ha	0.01%	**Relict Area:**	30.35 ha	**Av. Polygon:**	6.68 ha
Polygons:	3	0.01%	**Relict Polygons:**	3	**Occurrence:**	**Very rare**

Description:
Small fields exhibiting a brick-like pattern, usually occurring in small pockets.

Pre-18th Century 'Irregular Sinuous' Enclosure (AEF-sf)

GIS Legend

Total Area:	10105.19 ha	2.74%	**Relict Area:**	7906.54 ha	**Av. Polygon:**	8.73 ha
Polygons:	1158	2.73%	**Relict Polygons:**	500	**Occurrence:**	**Rare**

Description:
These fields have parallel edges which are sinuous, being in a similar orientation, but moving towards and away from each other, with short boundaries cutting across. They appear similar to co-axial fields, but without the parallel sides. Some are thought to be a variant form of co-axial field system, but may bear more relation to topography. Others may relate to former furlongs or common arable fields which also have a sinuous character.

Unimproved Rough Pasture (MAR-rp)

GIS Legend

Total Area:	33.34 ha	0.01%	**Relict Area:**	3.41 ha	**Av. Polygon:**	2.22 ha
Polygons:	15	0.04%	**Relict Polygons:**	2	**Occurrence:**	**Very rare**

Description:
Rough ground as symbolised on First Edition or Modern OS maps, showing no visible signs of improvement. There are varying degrees of enclosure.

Enclosed land – 18th-19th century enclosure

Piecemeal enclosure by agreement (LEF-le)

GIS Legend

Total Area:	33151.8 ha	8.97%	**Relict Area:**	24473.47 ha	**Av. Polygon:**	8.25 ha
Polygons:	4018	9.47%	**Relict Polygons:**	1282	**Occurrence:**	**Occasional**

Description:
These fields were created, by informal agreement, to subdivide a pre-existing earlier field system. They are characterised by straighter boundaries. This is a difficult form to consistently identify, as it may also comprise the enclosure of former waste, common, common arable or subdivision of various earlier enclosure patterns.
Dating of origin is difficult but they usually predate the introduction of the later formal Parliamentary Enclosure Acts, and thus may relate in certain parishes to the earlier acts of enclosure.

Formal style Parliamentary Enclosure (LEF-pe)

GIS Legend

Total Area:	3616.4 ha	0.98%	**Relict Area:**	2032.30 ha	**Av. Polygon:**	10.8 ha
Polygons:	335	0.79%	**Relict Polygons:**	116	**Occurrence:**	**Very rare**

Description:
Formal style Parliamentary Enclosure is a rigorous rectilinear field system that has overwritten any prior landscape enclosure pattern, usually either prior common arable field, or former heathlands, or wastes, associated with the later Parliamentary Enclosure Acts.

Piecemeal style Parliamentary Enclosure (LEF-ps)

GIS Legend

Total Area:	5237.13 ha	1.42%	**Relict Area:**	1652.28 ha	**Av. Polygon:**	30.81 ha
Polygons:	170	0.45%	**Relict Polygons:**	57	**Occurrence:**	**Rare**

Description:
Piecemeal style Parliamentary Enclosure can include further subdivision of existing Formal style, or earlier enclosure of former common land. These types are characterised by regular, rectangular fields, often with contemporary roads and trackways.

Enclosed land – 20th century agriculture

Boundary loss (TEF-bl)

GIS Legend

Total Area:	79251.68 ha	21.45%	**Relict Area:**	356.14 ha	**Av. Polygon:**	23.19 ha
Polygons:	3418	8.06%	**Relict Polygons:**	224	**Occurrence:**	**Common**

Description:
These represent field boundary loss since the 1950's due to mechanisation and changes in agricultural practices. This may range from the loss of a single boundary merging two fields into one, or many field boundaries being removed to form a single field (over 36 fields merged into one have been recorded). The resultant field is a hybrid and palimpsest, with edges that may have several periods of origin. The surviving edges of these fields are of historic importance.

Boundary loss – with relict elements (TEF-br)

GIS Legend

Total Area:	7664.11 ha	2.07%	**Relict Area:**	354.52 ha	**Av. Polygon:**	27.67 ha
Polygons:	277	0.65%	**Relict Polygons:**	21	**Occurrence:**	**Rare**

Description:
These represent field boundary loss since the 1950's due to mechanisation and changes in agricultural practices. Boundary loss with relict elements has elements of former boundaries within the field e.g. a field edge that does not connect to form a fully enclosed field enclosure.

20th century enclosure (TEF-te)

GIS Legend

Total Area:	10157.45 ha	2.75%	**Relict Area:**	59.48 ha	**Av. Polygon:**	3.22 ha
Polygons:	3151	7.43%	**Relict Polygons:**	10	**Occurrence:**	**Rare**

Description:
Modern, small, field enclosures, which can be either nested within a pre-existing field system or be a totally new field system that has over-written the prior landscape. These occur either at random across the landscape, or may be focused around the fringes of urban settlement, being part of the peri-urban fringe: or along new infrastructure such as motorways. They are usually identified as having straight edges or are rectilinear fields where corners meet, and occur only on the more recent maps.

Mixed origin (MIS-mo)

GIS Legend

Total Area:	2839.05 ha	0.77%	**Relict Area:**	16881.42 ha	**Av. Polygon:**	7.41 ha
Polygons:	383	0.90%	**Relict Polygons:**	693	**Occurrence:**	**Very rare**

Description:
Modern land parcels for which its landscape antecedents are a mixture of landscape types e.g. woodlands, fields, parkland, so the area in question cannot be mapped & ascribed to different prior types, as those boundaries are no longer visible in the current landscape. This usually, but not necessarily, refers to an area that has been cleared of field boundaries since 1950's. However the surviving edge may be of various periods of origin.

Enclosure – Inland managed wetlands

Enclosed Meadow (IMW-mp)

GIS Legend

Total Area:	6228.57 ha	1.69%	**Relict Area:**	3610.9 ha	**Av. Polygon:**	3.89 ha
Polygons:	1603	3.78%	**Relict Polygons:**	320	**Occurrence:**	**Rare**

Description:
These are sinuous fields that border rivers, often forming part of the flood plain/regime of the river, where the river floods naturally. They may be marked as areas of rough pasture. The traditional use from medieval times up to the 1950's was to produce a hay crop for winter fodder and for grazing. Some have been subsequently wooded or alternate with wooded areas along the river's course. See Water Meadows (IMW-wm) for managed flooding of meadows.

Water Meadow (IMW-wm)

GIS Legend

Total Area:	318.31ha	0.09%	**Relict Area:**	160.87ha	**Av. Polygon:**	16.75ha
Polygons:	19	0.04%	**Relict Polygons:**	12	**Occurrence:**	**Very Rare**

Description:
This is an area of grassland next to a river which is managed by artificially flooding the meadow at certain times of the year, utilising a distinctive, regular network of ridges and water channels to enable extended pasturage for livestock and a later hay crop. They came into use during the 17th and 18th centuries, but fell out of use in the 19th centuries as labour costs made them uneconomical to maintain. Some have survived as earthworks.

Open Land

Commons with a built margin (CWH-cb)

GIS Legend

Total Area:	276.5 ha	0.07%	**Relict Area:**	226 ha	**Av. Polygon:**	4.46 ha
Polygons:	62	0.15%	**Relict Polygons:**	42	**Occurrence:**	**Very Rare**

Description:
These are open areas, marked on the First Edition as 'common' or 'green'. They were traditionally used for pasturage of livestock. Commons with a built margin have a fringe of settlement around the margin, with clusters of houses and farms at road or track entrances. Some commons and greens have survived as amenity areas within or beside villages. Others have been developed for housing or formal recreational use. Most have been enclosed as part of agricultural improvement. These grazing commons are generally regarded as being early in origin.

Commons with an open margin (CWH-cm)

GIS Legend

Total Area:	634.73 ha	0.17%	**Relict Area:**	3168.72 ha	**Av. Polygon:**	10.41 ha
Polygons:	61	0.14%	**Relict Polygons:**	334	**Occurrence:**	**Very Rare**

Description:
These are open areas, marked on the First Edition as 'common' or 'green'. They were traditionally used for pasturage of livestock. Commons with an open margin may have a few houses or farms sited at road or track entrances. Some commons and greens have survived as amenity areas within or beside villages. Others have been developed for housing or formal recreational use. Most have been enclosed as part of agricultural improvement. These grazing commons are generally regarded as being early in origin.

Heath (CWH-ht)

GIS Legend

Total Area:	28.57 ha	0.01%	**Relict Area:**	1111.22 ha	**Av. Polygon:**	4.76 ha
Polygons:	6	0.01%	**Relict Polygons:**	107	**Occurrence:**	**Very Rare**

Description:
These are open areas, marked on the First Edition as 'heath'. Originally termed 'waste' in medieval times, they comprise areas of natural or semi-natural vegetation (particularly grass and heather) on dry, acidic soils. Historically these were too dry and impoverished for arable cultivation and were managed mainly as areas for pasturage of livestock, with management for woodland products. Some areas of heathland have experienced intermittent arable cultivation or small scale quarrying. This can leave earthworks of archaeological interest. Lack of grazing in the 20th century has resulted in the growth of scrub and bracken on many heaths.

Woodland

Ancient Woodland (WDS-aw)

GIS Legend

Total Area:	9401 ha	2.54%	**Relict Area:**	626.67 ha	**Av. Polygon:**	6.89 ha
Polygons:	1365	3.22%	**Relict Polygons:**	240	**Occurrence:**	**Rare**

Description:
Ancient woodland is defined by Natural England as 'land that has had a continuous woodland cover since at least 1600 AD and may be ancient semi-natural woodland, which retains a native tree and shrub cover that has not been planted, although it may have been managed by coppicing or felling and allowed to regenerate naturally…' The predominant species are deciduous, broad-leaf trees and shrubs. In the Essex HLC, this category also includes traditional wood-pasture, such as seen at Hatfield Forest, where single or small groups of pollarded trees occur in pasture alongside small coppice-with-standards managed woodlands.

Ancient woodland can preserve features which are natural such as an uneven land surface, or which predate the woodland such as prehistoric earthworks or medieval cultivation ridges where woodland has regenerated, or which relate to the woodland itself such as coppiced trees and wood banks.

18th - 20th century Woodland Plantation (WDS-wp)

GIS Legend

Total Area:	6130.1 ha	1.66%	**Relict Area:**	574.16 ha	**Av. Polygon:**	2.35 ha
Polygons:	2609	6.15%	**Relict Polygons:**	118	**Occurrence:**	**Rare**

Description:
This includes all managed and planted woodland which post-date Ancient Woodland. These may be planted as commercial concerns or as ornamental woodland in association with informal parkland. These woodlands can be replanting of cleared woodland, inter-planting within existing woodland, or new planting within former fields. Some plantations may have been planted and felled between the OS 1st Edition mapping and modern mapping. Many plantations are comprised of a single or couple of species of deciduous or coniferous tree, though some may have been designed with a mixed composition to imitate traditional woodland, such as plantations encouraged as part of Thames Chase or under Agri-environmental schemes.

Parks and Gardens

Informal parkland (PGR-ip)

GIS Legend

Total Area:	5650.1 ha	1.53%	**Relict Area:**	2280.11 ha	**Av. Polygon:**	32.85 ha
Polygons:	172	0.41%	**Relict Polygons:**	223	**Occurrence:**	**Rare**

Description:
Designed ornamental landscapes laid out around the ‘great’ or ‘grand’ house in the post medieval period, many by designers of national repute, such as Lancelot 'Capability' Brown at Audley End and Thorndon, Brentwood; and Humphry Repton at Hylands Park, Chelmsford and Gosfield Place, Halstead. The parks may include a formal garden, lakes, woodland, avenues, rides, vistas, and architectural features such as a ha-ha, terrace, folly or grotto. There may be remains of greenhouses and ice-houses.

Leisure/recreation (PGR-tl)

GIS Legend

Total Area:	7737.66 ha	2.09%	**Relict Area:**	0 ha	**Av. Polygon:**	14.02 ha
Polygons:	552	1.30%	**Relict Polygons:**	0	**Occurrence:**	**Rare**

Description:
This type includes country parks, golf courses, caravan parks, camping grounds, playing fields and other areas of land used for recreation and leisure. This type may have completely reworked and destroyed previous elements of the landscape, or may retain elements of its previous use, such as former parkland (see PGR-if), or of the surrounding character of the landscape, such as field boundaries, trees, and woodland. Golf initially became popular in the 19th century. The main development of this type is from the 20th century and is continuing.

Coastal Land – drained enclosure

Pre-18th century curvilinear drained reclamation (CDF-dc)

GIS Legend

Total Area:	4458.35 ha	1.21%	**Relict Area:**	8094.4 ha	**Av. Polygon:**	5.61 ha
Polygons:	795	1.87%	**Relict Polygons:**	725	**Occurrence:**	**Rare**

Description:
This type is a coastal land drainage pattern of a sinuous or serpentine form, draining low coastal lands to estuaries or the sea. The drains form the field boundaries which can be supplemented by later straighter boundaries to divide up the larger areas. All examples pre-date the earliest map sources and may originate from the medieval or post medieval period.

19th - 20th century rectilinear drained enclosure (CDF-dr)

GIS Legend

Total Area:	6578.35 ha	1.78%	**Relict Area:**	4343.85 ha	**Av. Polygon:**	7.61 ha
Polygons:	865	2.04%	**Relict Polygons:**	337	**Occurrence:**	**Rare**

Description:
This type is a rectilinear form of field drainage along the coast. These may be nested within an area of earlier sinuous drainage, or have overwritten the prior drainage patterns, or be a new area of drained reclaimed land. Some rectilinear drained enclosures are seen on the 1st edition OS maps and it is assumed that this style of drainage ditch dates from just before the first maps through to the present day.

Coastal Land – managed wetland

Unimproved marine marsh or brackish fen (CMW-mm)

GIS Legend

Total Area:	134.02 ha	0.04%	**Relict Area:**	218.02 ha	**Av. Polygon:**	26.9 ha
Polygons:	5	0.01%	**Relict Polygons:**	10	**Occurrence:**	**Very rare**

Description:
Unimproved marine marsh covers areas of coastal marsh that exhibit no discernable forms of enclosure or improvement. Brackish fen was areas of marsh where tidal water extended inland. These areas are poorly drained. Little remains as these marshes were mostly reclaimed and enclosed in the 18th century or later. These areas may preserve remains from prehistoric peoples at a time when sea levels were lower and these areas were inland.

Saltings (CMW-sa)

GIS Legend

Total Area:	715.06 ha	0.19%	**Relict Area:**	80.41 ha	**Av. Polygon:**	20.43 ha
Polygons:	35	0.08%	**Relict Polygons:**	8	**Occurrence:**	**Very rare**

Description:
Saltings are an estuarine and coastal type of inter-tidal mudflat. These areas have been exploited since prehistory for salt production and oyster beds. Saltings were dynamic, eroding as sea levels rose at estuary mouths with new areas forming behind as the estuary morphology 'rolled-over'. Their current distribution has been fixed by the presence of sea walls protecting the reclaimed land behind. These areas may have their origins at any period from prehistory to the current time.

Sea defences (CMW-sd)

GIS Legend

Total Area:	1290 ha	0.35%	**Relict Area:**	0 ha	**Av. Polygon:**	9.28 ha
Polygons:	139	0.33%	**Relict Polygons:**	0	**Occurrence:**	**Very rare**

Description:
Sea defences consist of solid walls and/or earthworks which were constructed to prevent marine inundation of low lying land. The documented sea defences were constructed from post-medieval times onwards. On Canvey Island, Dutch engineers were brought in during the 17th century to construct sea defences. In some places around the coast, several lines of sea defence can be traced, reflecting successive phases of construction as more of the marshland was reclaimed for agriculture.

Unimproved intertidal (CMW-ui)

GIS Legend

Total Area:	4390.29 ha	1.19%	**Relict Area:**	835.54 ha	**Av. Polygon:**	10.23 ha
Polygons:	429	1.01%	**Relict Polygons:**	52	**Occurrence:**	**Rare**

Description:
This type comprises the inter-tidal zone of the Essex coast, excluding any areas of marsh or saltings. This consists of inter-tidal mud, which in places has been shown to overlie prehistoric peat deposits which have preserved the mesolithic land surface. Their current distribution has been fixed by the presence of sea walls protecting the reclaimed land behind. These areas may have their origins at any period from prehistory to the current time.

Settlement

Religious Institution (BUH-ri)

GIS Legend

Total Area:	76.31 ha	0.02%	**Relict Area:**	3.18 ha	**Av. Polygon:**	5.09 ha
Polygons:	15	0.04%	**Relict Polygons:**	2	**Occurrence:**	**Very Rare**

Description:
This type was intended to show areas of land such as monastries and retreats, which could date from medieval through to modern. Only two such (Thremhall and Latton Priories) have been recorded on the HLC. Others have not been recognised or were considered too small during the mapping process. The figures for relict polygons therefore should not be seen as accurate, and the degree of change can not be calculated. This HLC type has also been used for some cemeteries and graveyards around churches as shown on the 1st edition OS maps, though not consistently.

Built-up areas - Historic (BUH-bh)

GIS Legend

Total Area:	0 ha	0.00%	**Relict Area:**	39,295.27 ha	**Av. Polygon:**	9.09 ha
Polygons:	0	0.00%	**Relict Polygons:**	4322	**Occurrence:**	

Description:
This type has been applied to the relict layers of modern built up or urban areas which have an historic core, and ranges from cities, towns, villages, and hamlets to large farms. All examples pre-date the 1st edition OS maps. These areas were not mapped as the urban area was not part of this project. This and further information is available in the Essex Historic Settlement survey reports.

Built-up areas – Urban development (BUM-ba)

GIS Legend

Total Area:	54,616.68 ha	14.79%	**Relict Area:**	0 ha	**Av. Polygon:**	7.85 ha
Polygons:	6955	16.40%	**Relict Polygons:**	0	**Occurrence:**	**Common**

Description:
This type has been applied to modern and historic built up or urban areas, and ranges from cities, towns, villages, and hamlets to large farms.

Built-up areas – Hospitals, Schools, Universities (BUM-hs)

GIS Legend

Total Area:	208.13 ha	0.06%	**Relict Area:**	0 ha	**Av. Polygon:**	9.91 ha
Polygons:	21	0.05%	**Relict Polygons:**	0	**Occurrence:**	**Very Rare**

Description:
This type comprises institutional buildings and their grounds where these are distinct on a landscape scale. Many were built in the 20th century but may have their origins in 19th century schools or workhouses, or reuse older country houses.

Plotland (BUM-pl)

GIS Legend

Total Area:	240.8 ha	0.07%	**Relict Area:**	120.25 ha	**Av. Polygon:**	7.77 ha
Polygons:	31	0.07%	**Relict Polygons:**	15	**Occurrence:**	**Very Rare**

Description:
A distinctive form of settlement pattern of a dwelling within an allotment of land, the settlement being set out in regular rectilinear patterns. Often the dwellings are arranged along the road with long land strips, set off from the road, forming the allotment. These specifically date to the 1920 to 1930's and reflect the social and economic climate of the inter-war years. Some of the plots had been set out but were not taken up and built upon so they have remained undeveloped. Others have been absorbed into new development.

Horticulture

Allotments (HOR-ag)

GIS Legend

Total Area:	217.53 ha	0.06%	**Relict Area:**	156.61 ha	**Av. Polygon:**	1.58 ha
Polygons:	138	0.33%	**Relict Polygons:**	63	**Occurrence:**	**Very Rare**

Description:
This HLC type covers parcels of land rented or leased to individuals to grow vegetable and soft fruit crops. This is a land use type, and may fill or be part of an earlier enclosure type. They are usually located within or around the fringes of built-up areas. Allotments as we know them today originated in the mid 19th century, peaked in the mid-20th century but then steadily declined. There is a current surge in interest and allotments continue in use today.

Orchard (HOR-at)

GIS Legend

Total Area:	1392.19 ha	0.38%	**Relict Area:**	318.44 ha	**Av. Polygon:**	7.73 ha
Polygons:	180	0.42%	**Relict Polygons:**	96	**Occurrence:**	**Very Rare**

Description:
This HLC type covers orchards, either large commercial concerns, or small orchards attached to larger homes or estates. Private orchards may occupy a field where the edge remains consistent through time, but use within can vary between orchard or cleared as a paddock. The earlier commercial orchards are defined by the pre-existing field systems in which they are planted. Later commercial orchards often remove prior boundaries and redefine field edges with new boundaries. Commercial orchards date from the late 19th century onwards, but may be planted within earlier pre-existing field boundaries. Private orchards may predate the earliest map sources.

Nursery with glass house (HOR-ng)

GIS Legend

Total Area:	837.38 ha	0.23%	**Relict Area:**	9.58 ha	**Av. Polygon:**	5.62 ha
Polygons:	149	0.35%	**Relict Polygons:**	2	**Occurrence:**	**Very Rare**

Description:
This HLC type covers nurseries and greenhouses for market gardening. The main distribution of this type is in the Lea Valley in the west of the county. Greenhouses used to be constructed of glass but have mostly been replaced with other materials or polytunnels. They may sit within an earlier field boundary pattern, or may have replaced it. These date from the late 19th/early 20th centuries.

Military

Disused post-medieval military (MIL-dm)

GIS Legend

Total Area:	178.25 ha	0.56%	**Relict Area:**	65.23 ha	**Av. Polygon:**	178.25 ha
Polygons:	1	0.00%	**Relict Polygons:**	3	**Occurrence:**	**Very Rare**

Description:
This HLC types covers disused defence sites, with the exception of airfields (see MIL-ma below). These generally consist of Napoleonic sites or sites of the First and Second World Wars, such as firing ranges, military camps, research establishments, and other military establishments.

Military airfield (MIL-ma)

GIS Legend

Total Area:	252.57 ha	0.07%	**Relict Area:**	3169.71 ha	**Av. Polygon:**	121.91 ha
Polygons:	1	0.00%	**Relict Polygons:**	25	**Occurrence:**	**Very Rare**

Description:
This HLC type covers former military airfields. The first airfields were from the First World War. There were 27 landing grounds in Essex. Most were grass fields which reverted to agriculture after the war and do not appear on the HLC. The buildings at Stow Maries have survived almost undisturbed to this day. North Weald Bassett continued in use through the Second World War and it has now been partly redeveloped, houses an airfield museum, and is used by private aircraft and glider clubs. Southend Airport also started life in the First World War, becoming RAF Rochford in the Second World War, then was handed back to Southend in 1946. Wormingford returned to agriculture, but became RAF Wormingford in the Second World War before being returned to agriculture again. There were 16 Second World War airfields in Essex, of which RAF Stansted became a civil (now international) airport, and RAF Wethersfield continued in use as a military airfield until 1996, when it transferred to the Ministry of Defence Police and Guarding Agency.

Post-medieval military (MIL-pm)

GIS Legend

Total Area:	459.41 ha	0.12%	**Relict Area:**	0 ha	**Av. Polygon:**	65.63 ha
Polygons:	7	0.02%	**Relict Polygons:**	0	**Occurrence:**	**Very Rare**

Description:
This HLC types covers defence sites, with the exception of airfields (see MIL-ma below). These generally consist of Napoleonic sites or sites of the First and Second World Wars, such as firing ranges, military camps, research establishments, and other military establishments. Some of these, including Colchester Garrison and Harwich Redoubt, occur within urban areas and are therefore not included within the HLC. Others, such as the Royal Gunpowder Works at Waltham Abbey are included in Industrial (see IND-in), and Tilbury and Coalhouse Forts are included in Historic earthworks (see EAR-he under Miscellaneous Landuse).

Land Use - Communications

Airfield - civilian (COM-ap)

GIS Legend

Total Area:	1380.02 ha	0.37%	**Relict Area:**	1847.34 ha	**Av. Polygon:**	98.57 ha
Polygons:	14	0.03%	**Relict Polygons:**	27	**Occurrence:**	**Very Rare**

Description:
This HLC type covers modern civilian airports and airfields, and includes farm grass landing strips where recognised. Formal airfields comprise runways and associated hangers & buildings, but can lack a distinct margin, as the runways and areas around were cleared from prior field systems or parkland. These airfields may have had military or civilian origins. These date from the 20th century.

Motorway and Railway (COM-mr)

GIS Legend

Total Area:	3310.76 ha	0.90%	**Relict Area:**	186.29 ha	**Av. Polygon:**	11.74 ha
Polygons:	282	0.66%	**Relict Polygons:**	26	**Occurrence:**	**Very Rare**

Description:
This HLC type covers major roads and railways lines, road interchanges, and railway sidings, which have had a significant impact on the landscape. Although roads have a long history, this type is concerned with the modern infrastructure of the 20th/21st centuries. The railway network developed in 19th century but suffered cuts in the mid 20th century.

Waterways (COM-ww)

GIS Legend

Total Area:	Not yet available	**Relict Area:**	Not available	**Av. Polygon:**	
Polygons:	Not yet available	**Relict Polygons:**	Not available	**Occurrence:**	

Description:
This HLC type covers navigable waterways. As yet these haven't been defined within the Essex HLC. Tidal navigations date back to Late Iron Age and Roman times. The main impetus to extend the navigable range of rivers in Essex was from the 18th century.

Land Use – Land-based

Historic Earthwork (EAR-he)

GIS Legend

Total Area:	148.62 ha	0.04%	**Relict Area:**	20.27 ha	**Av. Polygon:**	4.50 ha
Polygons:	33	0.08%	**Relict Polygons:**	2	**Occurrence:**	**Very Rare**

Description:
This type covers large scale historic monuments which are definable on a landscape scale. They date from any archaeological or historic period. They may be designated as Scheduled monuments, and managed to preserve them for the future.

Rabbit Warren (MIS-rw)

GIS Legend

Total Area:	1.08 ha	**Relict Area:**	8.90 ha	**Av. Polygon:**	
Polygons:	1	**Relict Polygons:**	1	**Occurrence:**	**Very Rare**

Description:
Rabbit warrens are systems of man-made earthworks constructed to accommodate rabbits as a source of food. They were constructed in medieval times and some have survived as a relict feature to the present day.

20th century Stud Farm (MIS-st)

GIS Legend

Total Area:	389.80 ha	0.11%	**Relict Area:**	20.27 ha	**Av. Polygon:**	4.50 ha
Polygons:	36	0.08%	**Relict Polygons:**	2	**Occurrence:**	**Very Rare**

Description:
This type covers post 1950's landscape type of modern stud farms. These are often distinguished by a new enclosure pattern with distinctive horse training arenas, trotting tracks, stable blocks, and tree shelterbelts.

Land Use – Water- based

Oyster beds (CMW-ob)

GIS Legend

Total Area:	61.68 ha	0.02%	**Relict Area:**	51.80 ha	**Av. Polygon:**	5.61 ha
Polygons:	11	0.03%	**Relict Polygons:**	7	**Occurrence:**	**Very Rare**

Description:
Oyster beds have a very characteristic morphology, consisting of small rectangular pits, usually in serried rows, along coastal shores in the inter-tidal zone. They are the result of commercial farming of oysters in the 18th and 19th centuries.

Watercress beds (IMW-wb)

GIS Legend

Total Area:	5.30 ha	0.00%	**Relict Area:**		**Av. Polygon:**	1.33 ha
Polygons:	4	0.01%	**Relict Polygons:**		**Occurrence:**	**Very Rare**

Description:
Watercress beds occur in association with springs, streams and small rivers. Shallow, gravel based, depressions were constructed for the watercress which was grown in clean flowing water. This has been a small localised industry in Essex, originating in the 19th century.

Reservoir (WAT-wr)

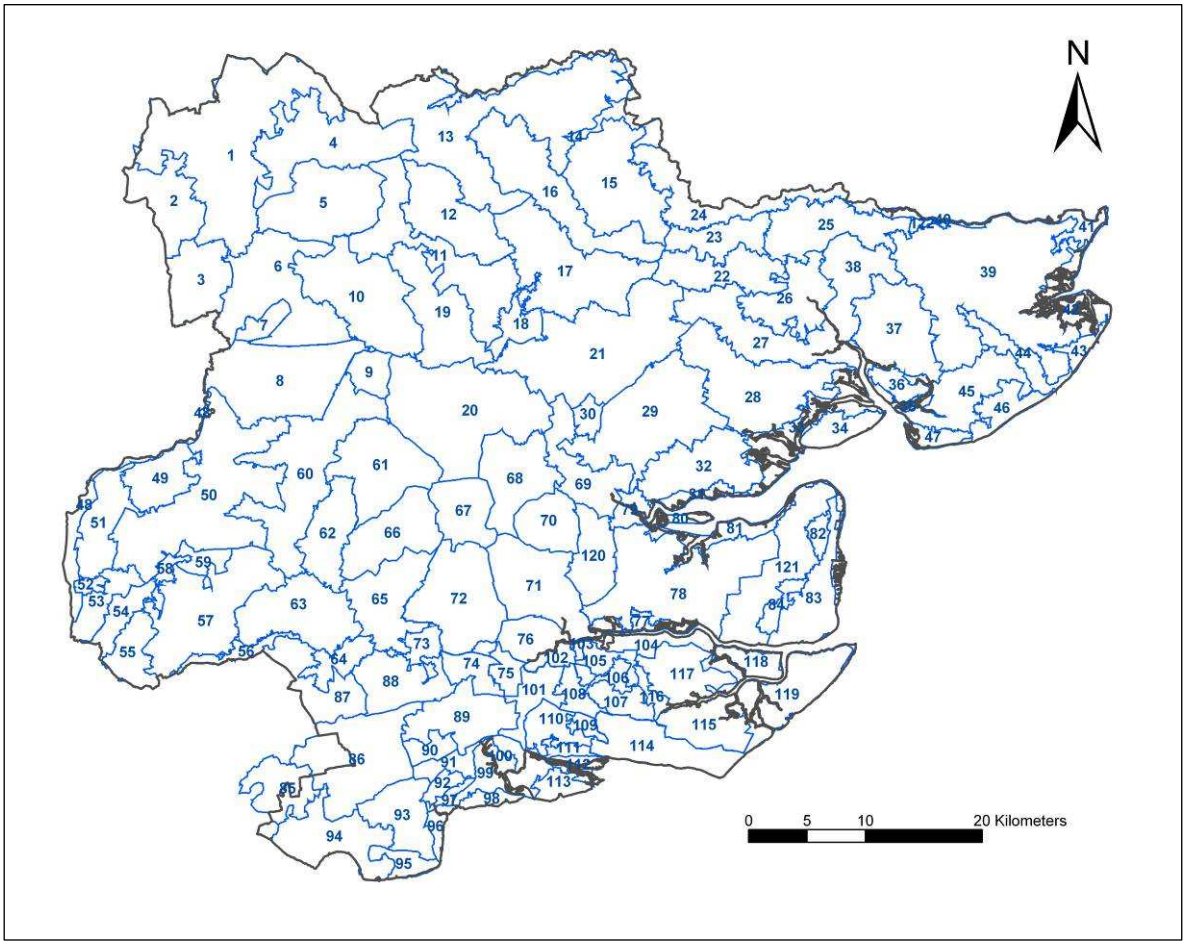
GIS Legend

Total Area:	2414.02 ha	0.65%	**Relict Area:**	510.91 ha	**Av. Polygon:**	3.40 ha
Polygons:	711	1.68%	**Relict Polygons:**	4	**Occurrence:**	**Rare**

Description:
This HLC type covers a wide range of water bodies, including public water supply reservoirs, flooded mineral extraction pits, and farm reservoirs and ponds for irrigation and livestock use. Most were created in the 20th century, but farm ponds may go back, predating the earliest map sources.

APPENDIX C: ESSEX HISTORIC LANDSCAPE CHARACTER AREA DESCRIPTIONS

Maria Medlycott



Essex Historic Landscape Areas

The Historic Landscape Characterisation data, combined with other key datasets such as Ancient Woodland, historic mapping, historic parks and gardens and secondary sources, was analysed and summarised in order to develop a series of character areas that reflected distinct combinations of Historic Landscape Character types and landscape character attributes. Thus the north-west corner of Essex, which is predominately a landscape of large common fields, forms Historic Landscape Character Area 1, whilst the area around Tiptree that was formerly Tiptree Heath forms Historic Landscape Character Area 29. As can be anticipated some areas form very distinct blocks, such as the marshes and urban areas, whilst other areas are less clear cut.

The descriptive text draws on a range of sources and attempts to reflect the reasoning behind the definition of an area and, where possible, relate that area to its wider historic context. The descriptions seek to highlight the key characteristics and HLC types in an area and identify any particular significant features or assets. The process of preparing the descriptions was also a part of the process of defining the areas.

1. Chesterford ridge

The landscape rises to a ridge along the northern border with Cambridgeshire, with the underlying chalk visible in the valleys of the Cam and its lateral streams and on the escarpment along the Cambridgeshire boundary. The remainder is covered by a skim of very chalky boulder clay. The area is bisected by the valley of the River Cam, which forms a natural routeway through the ridge.

Large common-fields developed here, of the Cambridgeshire and Midland type, a field-type that is rare in the rest of Essex. Some of these were enclosed by agreement in the early post-medieval period. The remainder were enclosed in the 18th and 19th centuries, partially as part of the parliamentary enclosure act. On the higher land the landscape is more typical of Essex than Cambridgeshire with winding lanes, dispersed hamlets and greens and ancient woodlands. A series of parks, Quendon, Shortgrove, Audley End and Chesterford, are strung out along the river valley, partially in the valley itself and partly on the valley slopes.

2. Clavering area

The Clavering area comprises a landscape of shallow valleys and ridges. The geology is overwhelmingly boulder clay, with head deposits in the valley floors. It is entirely rural in nature, with the historic settlement pattern widely dispersed along numerous linear greens and stream valleys. This pattern largely survives, although there has been a degree of coalescing creating linear villages along roads. The largest settlement is the village of Clavering, with its church and castle/manorial site.

The fieldscape consists of irregular fields of pre-18th century origin, (these are probably of medieval origin and some maybe even older), interspersed with patches of pre-18th century unenclosed common. The commons were enclosed in the 19th century forming large fields with irregular outlines and grid-like internal subdivisions. There has been a degree of boundary loss since the 1950's but not in significant quantities.

3. Manuden area

The area comprises the Stort valley and the gentle ridges to either side. The geology is largely comprised of boulder-clay, with the river valleys cutting into the underlying sand and gravels and head deposits having developed in the valley bottoms. The settlement pattern is very widely dispersed, comprising isolated farms and a few hamlets. The fieldscape is composed of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), with a number of small areas of pre-18th century unenclosed common. In the valley of the River Stort are areas of enclosed meadow pasture, some of which still survive. Hassobury Park outside Farnham forms a conspicuous landscape block within the area. There has been a greater degree of boundary loss in this area than in the Clavering area to the north, although the overall grain of the landscape is still quite finely textured.

4. North-east Uttlesford

An undulating rural landscape, dissected by many small streams. The land is higher in the southeast, falling away to the west and north. The geology comprises chalky boulder clay, overlying chalk, the latter being visible in the valley sides, particularly to the north and west. The fieldscape comprises a mixture of pre-18th

century irregular fields (these are probably of medieval origin and some maybe even older) and former common fields, usually enclosed in the 18th century by piecemeal agreement. The former common fields are concentrated on the higher ground in the south and east of the area. There are a number of ancient woodlands, particularly in the northern half of the area. The historic settlement pattern is dominated by the planned medieval market and castle town of Saffron Walden on the western edge of the area. Otherwise, historically the settlement was very dispersed, comprising church/hall complexes, isolated farms or small hamlets strung out along the roads or roadside greens. The degree of boundary loss is moderate, in some areas rising to high. Interestingly, those fields most affected are the former common fields which have thus been restored to their original dimensions.

5. North of Thaxted

A rolling rural landscape, bisected by the line of the Thaxted-Hadstock Roman road. The geology comprises chalky boulder clay, with alluvium in the valley of the River Pant on the north-east edge of the zone. The historic town of Thaxted is located on the southern edge of the area. The fieldscape is largely comprised of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), interspersed by the occasional common field which had been later enclosed piecemeal by agreement. Apart from Thaxted itself, the historic settlement is dispersed in nature, with isolated farms, moated sites and small hamlets strung out along linear greens. The roads are twisting and often partially sunken. The 20th century Carver Barracks is located on the western side of the area. Wimbish airfield is a relic of World War II. Debden Park on the western boundary is medieval in origin, and there were further parks associated with Thaxted. There are also a number of areas of ancient woodland. The degree of boundary loss is moderate.

6. Central Uttlesford

Gently rolling rural countryside, crossed by the valleys of the Pincey Brook and the River Roding. The geology comprises boulder clay in the central and eastern area, in the western half the River Stort cuts into glacial sands and gravels, and there are alluvial deposits on the valley floor. Historic settlement is largely dispersed, comprising church/hall complexes, isolated farms, many moated sites and small hamlets, often along linear greens. The only historic settlement of any size is Stansted Mountfitchet, which is centred on its castle and medieval market-place. The fieldscape comprises a complex network of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), interspersed with linear greens and a number of former common fields. The latter were largely enclosed in the 19th century and are clustered to the north of Stansted Mountfitchet, forming a southern outlier to the main concentration in the Chesterford Ridge area. There are a number of parks or former parks at Stansted, Shortgrove and Little Easton, the latter subsequently became a World War II airfield. There is a significant proportion of ancient woodland in the area, and many of the hedgerows are also of considerable antiquity. The majority of the roads are intricate, twisting and sunken, indicating their ancient origins. The M11 motorway bisects the western half of the area. Boundary loss can be described as low to moderate.

7. Stansted Airport

The airport began as a World War II airfield. It was enlarged in the 1950s as a local airport. From 1985 massive expansion over a 6 square kilometre area took place. It is now London's third airport, with proposals for continuing expansion. The landscape has been extensively re-modelled and little of the earlier fabric remains, apart from a few pockets of ancient woodland.

8. Hatfield Forest and the Hallingburys

A gently rolling rural landscape, crossed by the valleys of the Pincey Brook and the River Roding and bordered by the Stort valley on the west. The geology largely comprises chalky boulder clay, with sands and gravels and alluvial deposits in the valley of the River Stort and a small area of head deposits in the Hatfield Heath area. Hatfield Forest is an important survival of a medieval forest, comprising a mixture of wood pasture with pollards, coppice woods, timber trees, a warren, lodge and lake. Within this medieval landscape has been preserved the hillfort of Portingbury Hills. The hillfort of Wallbury Camp is still a major feature of the landscape on the western edge of this area. To the south and west of the Forest are the large medieval parks of Hallingbury Hall and New Barrington Hall, as well as the smaller park of Fitzjohns to the south-east. The fieldscape largely comprises a network of twisting lanes, often sunken, with irregular fields of pre-18th century origin. Against the borders of the Forest is a fringe of more regular fields, probably the result of encroachment on the forest itself. There are quite a number of small former commons and linear greens. Enclosed meadow pasture survives in the valley floors. There are also a number of areas of ancient woodland, in addition to Hatfield Forest. The settlement is largely dispersed, comprising church/hall complexes, isolated farmsteads, a large number of moated sites, and scattered roadside and greenside settlement, with clusters of settlement at Hatfield Heath, Hatfield Broadoak, the Hallingburys and the Canfields. Post-1950's boundary loss can be categorized as moderate.

9. Barnston area

An area of largely small irregular fields of medieval or earlier origin set in the valleys of the Martels and Barnston Brooks. The fieldscape appears to have been largely dictated by the valley topography and the heavy, damp clay soils. The majority of the fields are noticeably smaller than is usual in Essex. There is however a sinuous band of slightly more regular fields along the eastern slope of the Martel Brook valley. Historically the settlement is very dispersed, comprising moated sites, isolated farms and very small hamlets around equally small roadside greens. The only modern settlement of any size is Barnston and settlement was equally small in the historic periods. Boundary loss can be described as low to moderate, with some land-owners having rationalised the field pattern more than others.

10. Upper Chelmer valley

This area comprises the upper reaches of the Chelmer and the valley of the Stebbing Brook, and the ridge between the two river systems. The geology comprises chalky boulder clay on the interfluvial ridge, glacial sands and gravels are exposed in the sides of the river valleys and there are alluvial deposits on the valley floors. There are extensive enclosed meadow pastures along both river

valleys. Otherwise the fieldscape comprises pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), interspersed by what is categorised as 'mixed origin' fields, these however appear to be also pre-18th century in origin. There is also the occasional common field which had been later enclosed piecemeal by agreement. There are a number of small parks and some ancient woodland. The historic settlement is dominated by the market-town of Great Dunmow on the southern boundary. Otherwise the settlement pattern is one of dispersed settlement with isolated farms, moated sites and small hamlets strung out along linear greens. The roads are twisting and often partially sunken. The post-1950s boundary loss can be characterised as moderate, rising to high on a few farms.

11. Great Bardfield area

This area largely comprises the ridge between the Pods Brook and the River Pant/Blackwater, and the valley slopes. The area is predominately Boulder Clay, with Kesgrave sands and gravels and alluvium in the valley floors and sides. The fields are predominately pre-18th century irregular fields (these are probably of medieval origin and some maybe even older). There are areas of enclosed meadow along the Pods Brook and numerous small areas of woodland. Historically the settlement comprised very dispersed settlement of church/hall complexes, manors, farms, moated sites and small hamlets strung out along extensive network of linear and triangular greens, the latter located at road junctions. The greens do not show clearly on the HLC, largely because they were enclosed in a piecemeal fashion prior to the 1st OS map, however their location is still discernible within the current fieldscape. Rayne and Great Bardfield form the only settlements of any size. Post 1950s boundary loss can be described as moderate, rising to high on a few farms.

12. Upper Pant/Blackwater valley

The upper reaches of the River Pant/Blackwater. The geology comprises Boulder Clay on the upper levels with Kesgrave sands and gravels from the valley sides, and a build-up of alluvium in the valley floor. The fieldscape is characterised by pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), which are generally smaller than usual. In the valley bottom there are extensive tracts of enclosed meadow. There are numerous small areas of ancient woodland on the higher ground, and in the valley floor are areas of 19th to 20th century woodland or scrub. Historically the settlement comprised very dispersed settlement of church/hall complexes, manors, farms, moated sites and small hamlets strung out along extensive network of linear and triangular greens. The exception to this is the nucleated village of Finchingfield, which occupies a nodal position in the communications. This nodal position is in turn reflected in the 'spider-web' field pattern which radiates around the village. Post 1950's field loss can be described as slight to moderate and largely takes the form of amalgamation of smaller fields in order to provide larger units. The overall grain to the landscape remains largely unchanged.

13. Belchamps ridge

A ridge of higher ground to the south of the Stour valley. The geology is predominately Boulder Clay with sand and gravel and alluvium in the tributaries valleys of the Stour. The area comprises a complex mix of pre-18th century

irregular fields (these are probably of medieval origin and some maybe even older) and common arable field enclosed by agreement. The latter type of field had largely been enclosed by the mid-19th century, and is more concentrated in the eastern half of the area. Historically the settlement was very dispersed, consisting of church/hall complexes, isolated manors and farms, moated sites and small hamlets. The only significant modern intrusions of this ancient landscape are the Second World War airfields at Wethersfield and at Ashen. There are a number of small parks of medieval origin at Liston Hall and Moyns Park. Small areas of ancient woodland are scattered along the ridge, and there are ancient enclosed meadows, some still surviving, in the tributaries of the River Stour. Post 1950s boundary loss can be described as moderate, rising to high on a number of farms.

14. Upper Stour valley

This area encompasses the upper reaches of the Stour valley in Essex. The valley has a broad flat bottom, characterised by extensive meadows, and gentle slopes rising to the south and west. The soil-type comprises a mix of alluvium and sand and gravel, with boulder clay on the higher slopes. The field pattern comprises meadows in the valley floor, with 18th century or later enclosure on the valley sides, interspersed with the occasional area of pre-18th century irregular enclosure (these are probably of medieval origin and some maybe even older). The field boundaries, unsurprisingly, echo the lie of the contours, with the long fields formed by the later enclosure running down the slope. There is little settlement in this area, as historically the villages were located on the crest of the valley slope. There are however a number of isolated farms and structures associated with the river itself, most notably mills, in the valley bottom. Post 1950s boundary loss can be described as moderate, rising to high in a number of farms. Interestingly the result of this boundary loss has been to return the field-pattern to its pre-enclosure dimensions.

15. Pebmarsh area

An area of undulating topography, comprising a central area of higher ground, drained by many small rivers, each in their own valley, which are tributaries of the River Stour to the north and the River Colne to the south. The geology comprises Boulder Clay on the upper levels, the river has revealed the underlying Kesgrave sands and gravels and patches of London Clay in the valley sides and base, with alluvium along the valley floor. The fieldscape comprises a mix of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and later enclosure of common arable. There is a scatter of ancient woodlands along the crest of the ridge overlooking the Stour valley and small areas of enclosed meadow in the valleys. There are also areas of 19th-20th century woodland plantation, these are largely located in the tributary valleys. Historically the settlement was very dispersed, consisting of church/hall complexes, isolated manors and farms, moated sites and small hamlets and there has been little modern development. Post 1950s boundary loss can be described as moderate, rising to high in a number of fields.

16. Upper Colne valley

This area comprises the upper reaches of the Colne valley. The geology consists of Boulder Clay on the upper levels, the river has revealed the underlying Kesgrave sands and gravels and patches of London Clay in the valley sides and

base, with alluvium along the valley floor. The fieldscape comprise a complex mix of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and later enclosure of common arable. There are extensive areas of enclosed meadow along the valley floor still surviving. The size of the fields varies enormously, from large rectangular ones on the side of the valleys, to small irregular paddock-sized examples clustered around the towns and villages. There are a number of parks, many of which are of medieval origin. These particularly congregate in the area immediately to the north of Halstead. There are some areas of ancient woodland, largely on the valley sides, and some areas of 19th-20th century plantation. The settlement pattern is strung out along the river, clustering at crossing-places, as at Earls Colne, Halstead, Sible Hedingham and Great Yeldham. Castle Hedingham by contrast is located on a natural spur jutting out into the valley. The remainder of the settlement comprises isolated farms and moated sites and small hamlets. Post-1950s boundary loss can be described as slight to moderate.

17. Gosfield area

A ridge of higher ground, sloping down to the Colne valley to the north and the Blackwater valley to the south. The soil-type is largely Boulder Clay, with sands and gravels and alluvium in the river valleys and the valley of the Bourne Brook. The landscape is characterised by a belt of ancient woods running along the top the ridge, these include Markshall woods, Gosfield Wood and Parkhall wood. In addition there are a number of large landscaped parks, also located along the top of the ridge, these include Gosfield Hall, Gosfield Place and Marks Hall park. Some of these are medieval in origin. The field pattern is predominately pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), with some enclosed meadow along the rivers. Gosfield airfield in the centre of the area dates to the Second World War. Post 1950s boundary loss can be described as moderate, rising to high on one or two farms.

18. Braintree urban area

The modern urban area of Braintree, this incorporates the historic Roman, medieval and post-medieval cores, the historic village of Bocking and the new development of Great Notley.

19. The Saling ridge

This area comprises the ridge between the Stebbing Brook and the Pods Brook valleys, the ridge itself gently slopes from south to north. The geology comprises Boulder Clay, with alluviums and gravels in the valley of Ter. A predominately rural landscape of fields, hedgerows and small copses. The fields are predominately pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), relatively small in size in the southern half of the area and getting larger to the north. There are areas of enclosed meadow pasture along the Ter still surviving and numerous small areas of woodland. Historically the settlement comprised dispersed or polyfocal settlement strung out along an extensive network of linear and triangular greens, the latter located at road junctions. In addition there were isolated farms set within their own lands. Modern development is largely limited to small suburbs on the edge of Felsted, some ribbon development along the road and the small grass-strip airfield at Saling.

Post 1950s boundary loss can be described as moderate, rising to high on a few farms.

20. North of Chelmsford encompassing the Chelmer and Ter valleys

Undulating countryside forming the Chelmer and Ter valleys and the ridge between them. The geology comprises boulder clay on the interfluvial ridge and head and glacial sand and gravel deposits in the river valley. Modern uses appear to have cut across the landscape, with a major road running north from Chelmsford, two golf courses, the Essex show ground, areas of gravel extraction and an airfield. Much 20th century development has occurred in the south of the area, particularly in and around Broomfield, Little Waltham, and Boreham. The historic pattern of dispersed settlements and scattered farmsteads survive. Some settlements would have been focussed on greens. A historic pattern of irregular fields of various sizes exists across the area, these are medieval or earlier in origin. Despite moderate to significant boundary loss, the boundary pattern survives. There are several areas of ancient woodlands, particularly in the Ter valley. The line of the Roman road from Chelmsford to Braintree effectively bisects the zone.

21. Coggeshall area

An undulating landscape, cut by the steep-sided valleys of the rivers Brain and Blackwater. The principal geology is Boulder Clay, with London Clay and gravels exposed in the valley bottoms and sides respectively. The fieldscape is complex, comprising a mix of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and pre-18th century co-axial fields (also of probable medieval origin), the latter in particular respond to the local topography. The valley bottoms contain present and former enclosed meadow. The valley to the south of Coggeshall now contains extensive willow plantations which add their own character to the landscape. The historic settlement pattern is largely dispersed, comprising isolated manors, church/hall complexes, farms, moated sites and hamlets. The historic towns of Kelvedon and Coggeshall also fall within the area, as does the early 20th century village of Silver End. The Roman roads of Stane Street and the former A12 have also left their imprint on the modern landscape, influencing field alignment and settlement distribution. The former airfield of Rivenhall, now a gravel-extraction site, forms a dominant landscape feature in the centre of the area. Post 1950s boundary loss can be described as moderate.

22. The Lower Colne valley

This area comprises the lower reaches of the River Colne between Wakes Colne and Colchester. The soil-type comprises a complex, intertwined mix of alluvium, London Clay, sands and gravels and Boulder Clays. There are extensive tracts of enclosed meadow pasture along the valley floor. The fieldscape largely comprises pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), interspersed with areas of later enclosure of common fields. This later enclosure largely occurred in the later medieval and early post-medieval period in Essex. There are a number of areas of ancient woodland, as well as scattered small areas of 19th-20th century woodland plantation and some orchards. There was some former heathland to the north-east, but this has largely been developed and now lies under the modern village of West Bergholt. The

historic settlement pattern comprised dispersed settlement of church/hall complexes, manors, farms, cottages and hamlet. Post 1950's boundary loss can be described as moderate, rising to severe in some areas.

23. Colne-Stour watershed

This area comprises a narrow ridge of higher ground which forms the watershed between the Stour valley to the north and the Colne valley to the south. The geology is predominately Boulder Clay, with an outcrop of sand and gravel at the eastern limit of the area, and with London Clay, sand and gravel and alluvium in the tributary valleys that run down into the bordering valleys. The fieldscape largely comprises pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), with some areas of later enclosure by agreement. The 1777 map shows a network of wide verges and roadside greens, but these had largely been enclosed by the date of the 1st edition OS map. In the centre of the area this pattern has been disrupted by the construction of the Second World War airfield beside Wormingford. There is one large park, at Westwood House, and a few small areas of 19th-20th century woodland plantation. The historic settlement pattern comprised dispersed settlement of church/hall complexes, manors, farms, cottages and hamlet. This pattern is largely preserved within the present landscape, although on the Wormingford to Fordham road infilling of the historic settlement has formed ribbon development. Post 1950's boundary loss can be described as moderate, rising to high on a number of farms.

24. Lower Stour valley

The Lower Stour valley area comprises the valley floor and southern slopes of the River Stour, and includes the Dedham Vale area. The geology comprises a complex intertwining network of river alluviums, sand and gravel river terraces and London Clay, with areas of Boulder Clay near the crest of the valley. The valley landscape is characterised by extensive tracts of meadow pasture along the valley floor. The field boundaries on the meadows largely take the form of drainage channels with ancient willows spaced out along the banks of the river. The valley sides have a mix of 18th century or later enclosure, interspersed with the occasional area of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older). The field boundaries, unsurprisingly, echo the lie of the contours, with the long fields formed by the later enclosure running down the slope. There are a number of areas of ancient woodland, and some more recent woodland plantation, these are all located on the valley slope. There is limited settlement in this area, as historically the villages were located on the crest of the valley slope. The exception to this is the small market town of Dedham which lies just above the river flood-plain. There are also a number of isolated farms and structures associated with the river itself, most notably mills, in the valley bottom. Post 1950s boundary loss can be described as moderate, rising to high in a number of farms. Interestingly the result of this boundary loss has been to return those fields that were formed as a result of 18th century or later enclosure to their pre-enclosure dimensions.

25. Boxted Heath area

This area comprises a ridge of higher ground to the south of the Stour valley. The soil-type consists of Boulder Clay on the higher ground with sands and gravels and London Clay revealed in the valley sides. The area is characterised by large areas of former heathland, these included Dedham Heath, Boxted Heath and Mile-end Heath. These were all sited on the Boulder Clay, forming a rough semi-circle around the eastern flank of Colchester. Historically they were used for rough pasture, they were enclosed in the early 19th century. The present landscape comprises a mixture of 18th century and later enclosure, pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and later enclosure by agreement. The first category largely but not entirely corresponds to the former heathlands, and is concentrated in the southern half of the area. Whilst the more piecemeal later enclosure and the irregular fields are concentrated in the north, on the slopes overlooking the Stour valley. There are tracts of enclosed meadow pasture in the valleys of the tributary streams feeding into the Stour. There were extensive orchards, some of which still survive, the greatest concentration of these are at the eastern end of the area. Along the northern edge of the area is a string of former parks, including Mistley Park, Ayward Park and Hill House. The settlement is also largely concentrated along the northern ridge, and historically comprised dispersed settlement of church/hall complexes, manors, farms, cottages and hamlet. Modern ribbon development has now linked many of these sites. Langham Moor airport is of Second World war origin, and forms a major landscape feature in the area bordering Colchester. Post 1950's boundary loss can be described as moderate.

26. Colchester urban area

The modern urban area of Colchester. This incorporates the Iron Age tribal centre of *Camulodunum*, the Roman town of Colchester, the medieval and post-medieval historic centre, 20th-century suburban areas and the historic settlements of Mile End and Lexden. The modern built up area includes the army garrison, to the south of the town centre, industrial estates to the north and west and a surviving tract of woodland and open fields within High Woods Country Park, which are managed for wildlife and recreational purposes.

27. The Roman River valley

This area comprises the valley of the Roman River and its tributary streams. The geology is predominately sand and gravel, with London Clay and alluvium in the valley floor and Boulder Clay at its western end. There has been extensive quarrying of the sands and gravels, particularly in the Stanway and Fingringhoe areas. There are extensive areas of enclosed meadow pasture and ancient woodland of probable medieval or earlier origin in the valley floor. The field pattern largely consists of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older). Where the Roman River meets the Colne Estuary there are areas of reclaimed marshland, some retaining the sinuous outlines of the original creek system and some with the rectilinear pattern of later reclamation. There are large tracts of 19th-20th century woodland plantation on the northern slopes of the valley, particularly on the former Black Heath in Berechurch parish. Modern recreational landscape features include a number of small parks, Colchester Zoo and the archaeological park of Gosbecks. The historic settlement pattern comprised dispersed settlement of church/hall complexes,

manors, farms, cottages and hamlet, which have grown to form the settlements of Marks Tey, Stanway, Layer-de-la-Haye, Langenhoe, Rowhedge and Fingringhoe. Post 1950's boundary loss can be described as moderate to high, rising to severe in some areas.

28. Abberton area

An undulating landscape, dominated by the man-made Abberton Reservoir in the shallow valley of the Layer Brook. The geology is predominately London Clay, with Kesgrave sands and gravels and Boulder Clay in the north-west corner. The field pattern is very varied, ranging from predominately pre-18th century irregular fields (these are probably medieval or earlier in origin) in the north-west of the area, to a more co-axial rectilinear system (also medieval in origin) in the remainder of the area, with dispersed areas of later piecemeal enclosure. Some of this later enclosure dates to the later medieval or post-medieval period, whilst the remainder, particularly on the former Layer Heath dates to the early 19th century. Historically the settlement is dispersed, comprising isolated church/hall complexes, manors, farms, cottages and hamlets bordering small greens. Post 1950's boundary loss can be described as moderate, rising to high in some farms and total on the site of the reservoir.

29. Tiptree Heath

A ridge of higher ground, sloping to the north-west to the Domsey Brook valley and to the south-east towards the Blackwater estuary. The backbone of the ridge is composed of London Clay, with small pockets of sand and gravel scattered along it. There are larger expanses of sand and gravel along the sides of the ridge, as well as areas of Boulder Clay and head deposits. Historically this area comprised Tiptree Heath, a huge area of common rough pasture and wood-pasture shared between the neighbouring parishes. Encroachment on this area began in a piecemeal fashion in the medieval period, but extensive open tracts still remained until the early 19th century when it was finally enclosed by Enclosure Act. This piecemeal history of enclosure is evident in the HLC. Some areas of the original heath and wood-pasture survive, the latter appear as ancient woodland on the HLC and are largely located on the top of the ridge; the Wickham Bishops area is particularly well-wooded. The valley of the Domsey Brook has enclosed meadow pasture along its floor. There is one large park, Braxted Park, located on the eastern side of the area, and a smaller park at Hill House at the northern end of the area. Historically settlement was very dispersed and sparse, comprising isolated church/hall complexes, manors, farms, cottages and small hamlets. The modern settlements of Tiptree and Wickham Bishops largely date to the 20th century. Post 1950's boundary loss can be characterised as moderate to high, in many cases involving the removal of boundaries introduced in the early 19th century.

30. Witham urban area

The modern urban area of Witham. This incorporates the site of the Roman temple complex at Ivy Chimneys, the Saxon burh at Chipping Hill, and the medieval and post-medieval town centred on Newlands Street. The town remained a small market town until the 1960s and 70s when large new estates of 'London overspill' were added.

31. Marshes to the north of the Blackwater estuary

A very long, but narrow fringe of present and former marshland along the northern edge of the Blackwater estuary and curving around the eastern end of the Dengie Peninsula. The geology largely comprises tidal flat deposits, with some sand and gravel river terracing on the landward side of the area. There are extensive views across the estuary and out to sea. The field boundaries are large drainage ditches, mainly without banks or hedges, some following the sinuous course of the former creeks. The marshes were largely reclaimed in the 18th century. The settlement is, in the main, highly dispersed comprising isolated farms. The older of these are located on the boundary between the former dryland and the marsh, whilst those of 18th and 19th century origin are sited on the reclaimed land.

32. Ridge to the north of the Blackwater estuary

This area comprises a ridge of higher ground on the northern bank of the Blackwater estuary. In the Saxon period it formed a single large estate, the Tolls. The geology comprises London Clay, overlain with head deposits and sand and gravels. There has been extensive quarrying of the sands and gravels in the south-west corner of the area, and this is reflected in the HLC. The field pattern has been characterised by the HLC as a mixture of pre-18th century irregular fields and later piecemeal enclosure by agreement. However closer examination suggests that the majority of the fields are rectilinear in form, albeit within an irregular framework. The fields in the southern portion of the area were laid out on a roughly ladder-like system running down from the crest of the ridge down to the marsh edge. In the post-medieval period it is known that this area was sub-divided into long narrow farms, enabling access to the high ground, the south-facing slopes and the marsh, and hence the widest range of landscape resources. The pattern is different in the northern half of the area, where the fields, which are still rectilinear, are grouped into distinct blocks, possibly representing individual farm extents. These fields are definitely medieval in origin and given the known history of the area it is possible that the basic framework was laid out in the Saxon period. Historically the settlement is dispersed, comprising isolated manors, farms, moated sites and hamlets bordering small greens. The only nucleated settlement of any size is Tollesbury. There is a large golf course in the north-east corner of the area. Post 1950's boundary loss can be described as moderate to high, rising to sever in a number of areas.

33. Marshes between the Blackwater and Colne estuaries

Extensive areas of mudflats, fleets and creeks, saltmarsh and present and former grazing marsh located between the mouths of the Blackwater and Colne estuaries, and included the marshes along the northern side of Mersea Island. The geology comprises tidal flat and estuarine deposits. The area includes some of the most extensive tracts of grazing marsh in the county. The field boundaries are large drainage ditches, mainly without banks or hedges, some following the sinuous course of the former creeks. Much of the area is in conservation ownership with large areas owned and managed by the National Trust, the RSPB and the Essex Wildlife Trust. The settlement is both highly dispersed and sparse, comprising isolated farms; the older of these are located on the boundary between the former dryland and the marsh, whilst those of 18th and 19th century origin are sited on the reclaimed land. There is practically no post 1950s boundary loss in this area.

34. Mersea Island

A gently domed island of London Clay, with patches of Kesgrave sands and gravels. The landscape largely comprises pre-18th century irregular enclosure (these are probably of medieval origin and some maybe even older). There is only one small area of ancient woodland, although there are a number of areas of secondary scrub. The primary focus of settlement, both historic and modern is at the western end of the island, there is also a line of more dispersed settlement along the spine of the island, modern development has given this a ribbon-development appearance. On the southern side are a number of areas set aside for recreational use, these include youth camps, caravan parks and the Cudmore Grove Country Park. The post 1950s boundary loss can be described as moderate to high.

35. Eastern Colne marshes

An area of current and former marshland, sited on the eastern shore of the Colne estuary, and including the Brightlingsea Creek and St Osyth Creek marshes. The geology comprises estuarine alluvium deposits. The field boundaries comprise drainage channels, mainly without banks or hedges, many following the sinuous course of the former creeks. A number of areas of former oyster beds are located within this area, most notably those of Cindery Island to the south of Brightlingsea. The tidal mill pond at the head of St Osyth Creek is also included in the area, this is of medieval, or possibly late Saxon origin. The marshes nearly enclose the Brightlingsea peninsula. There is no settlement in this area, it was historically confined to the dryer ground to the east. The levels of post 1950s boundary loss in the area are low.

36. Brightlingsea peninsula

A small area comprising the dryland peninsula of Brightlingsea, which is virtually an island set in the coastal marshes of the eastern Colne. The geology is mainly Kesgrave sands and gravels, with the underling London Clay forming a fringe around the edges, it in turn is bordered by a band of alluvium that extends beyond the area into the coastal marshes. The fieldscape has largely been identified as being pre-18th century irregular enclosure, these appear to have been sub-divided internally into rectangular strip fields, possibly in the medieval period. Brightlingsea was the centre of a Royal *vill* in the Saxon period and it is possible that some of the irregular field boundaries may date to that period. Settlement is largely concentrated in the village of Brightlingsea, a historic cinque-port, as well as a number of isolated farms, mostly strung out along the marsh edge. There are a number of small areas of ancient woodland on the higher ground. There is an extensive mineral extraction pit to the southeast of the village, otherwise the post 1950s boundary loss can be described as low to moderate.

37. Alresford area

This area comprises the valleys of three brooks, of which the largest is the Frating Brook which bisects the area. All three drain into the marshes to the rear of Brightlingsea. The geology consists of boulder clay on the ridges between the valleys, sands and gravels on the valley sides and London Clay in the valley floor. This area is distinguished by the enclosed meadows which line the valley floors

and large areas of orchards, many of which still survive. The remainder of the fieldscape comprises a mixture of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and later enclosure of common fields. There are some areas of ancient woodland, particularly in the southern half of the area. Historically the settlement was very dispersed, comprising isolated church/hall complexes, manors, farms and small hamlets, the latter often located at road junctions. Modern development has largely confined itself to ribbon development along the roads, with the only sizable settlement being Elmstead Market. There are extensive areas of mineral extraction in the southern half of the area. Post 1950s boundary loss can be described as moderate, rising to high on a number of farms.

38. Ardleigh Heaths area

This area is located on the western edge of the Tendring Plateau, and comprises a higher flat area, bisected by the valley of the Salary Brook and bordered by the Colne estuary to the south. The geology is largely Boulder Clay, with sands and gravels and London Clay revealed in the valley sides, and with some alluvium bordering the Colne estuary. The area is characterised by large areas of former heathland, these included Ardleigh Heath, Crockleford Heath, Whitmore Heath and Wivenhoe Heath. These were all sited on the Boulder Clay, forming a rough semi-circle around the eastern flank of Colchester. Historically they were used for rough pasture but were enclosed in the early 19th century. The present landscape comprises a mixture of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) and later enclosure by agreement, the latter largely but not entirely corresponding to the former heathlands. There are areas of ancient woodland, chiefly in the western half of the area. There were extensive orchards, some of which still survive. Wivenhoe Park, which is medieval in origin, is now the site of Essex University. Ardleigh Park is also medieval in origin. Ardleigh Reservoir forms a major modern landscape feature in the north-west of the area. Historically settlement comprised the small port town of Wivenhoe in the south of the area and the nucleated village of Ardleigh in the north. In between these was a dispersed scatter of manors, farms, cottages and small hamlets. This settlement pattern is still evident today. Post 1950s boundary loss can be described as moderate, rising to high in a number of areas.

39. Tendring plateau

A large plateau-like area, drained by the Holland Brook to the south and by smaller streams to the north and west. The geology is largely London Clay in the central and eastern parts, overlain by Boulder Clay in the western part. There are bands of Kesgrave sands and gravels, marking the former line of the River Thames running diagonally across the area, and small patches of alluvium close to the coast and in the valley of Ramsey Creek. The fieldscape comprises a mixture of later enclosure by agreement and pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), with the later enclosure in the majority. It appears that at least some of the enclosure comprised the sub-division into strip fields of early irregular shaped fields. The area is also characterised by long, thin, roadside greens and small triangular greens at road junctions, with one larger area of former heathland at Bradfield Heath. There are areas of enclosed meadow pasture in the stream valleys. The areas of ancient woodland are largely in the southern half of the area, although there is an

important grouping overlooking the Stour estuary at Wrabness. There are also areas of orchards, mainly in the northern half of the area. The settlement is dispersed in character, comprising church/hall complexes, manors, farms, cottages and small hamlets, the latter often strung out along the roadside greens. Modern development has largely taken the form of infilling of this pattern, resulting in ribbon development along the roads. Post-1950s boundary loss can be assessed as moderate, rising to high on a number of farms and severe on one or two farms.

40. Marshes along the Stour estuary

This area comprises a long narrow strip of tidal marshland along the southern bank of the Stour estuary. There is also an area of reclaimed marsh at the head of the estuary. There has been little boundary loss in this area, the boundaries are all of the drainage ditch type. Lower Barn Farm on the edge of the dryland is the only settlement in this area.

41. Harwich urban area

The modern urban area of Harwich, this incorporates the medieval and post-medieval historic core of the town, the military redoubt to the south of the town and the modern Parkeston Quay to the west.

42. Hamford Water

Hamford Water is an extensive area of current and former marshland, creeks and marshland islands, some of which have been embanked. The geology comprises tidal flat deposits, with outcrops of London Clay forming the backbone of Skippers and Horsey Islands. Topographically this is a very complex landscape of interlocking dryland, marshland, mud and tidal waters. The area incorporates the reclaimed marshes to the south of Harwich and the mud cliffs that form the Naze at Walton-on-the–Naze. The area is very important as a nature conservation area, Skipper Island is a nature reserve. Bramble Island was used as an explosive factory and remains dating to that phase survive, it is now used as a chemical factory. Much of the embankment took place in the 19th century, the field boundaries comprise drainage channels, mainly without banks or hedges, some following the sinuous course of the former creeks. Post 1950s boundary loss in the area is very low.

43. Frinton and Walton urban areas

The modern urban areas of Frinton and Walton. The towns developed as two distinct 19th century seaside resorts. Much of the current urban area however dates to the post 1960s.

44. Holland Brook valley

The small shallow valley of the Holland Brook and the marshes at its mouth. The geology comprises London Clay, overlain with patches of Kesgrave sands and gravels on the valley sides and alluvium in the valley floor. The area is characterised by enclosed meadows along the brook, with drained linear reclamation of the tidal marshes. These were enclosed in the early 19th century. The field boundaries on the reclaimed marshes comprised drainage channels with

no banks or hedges. The fields along the valley sides largely consist of pre-18th century enclosure, much of this echoes the contours of the valley with the rectangular fields running down the slope. In the centre of the area the later enclosure of Weeley Heath has been identified. There is little settlement in this area, and the few examples are highly dispersed in nature, comprising isolated farms and cottages. Post 1950s boundary loss can be described as high.

45. St Osyth area

This geology of this area comprises the London Clay slope around St Osyth with areas of Kesgrave sand and gravel. The fieldscape is largely one of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), with an area of pre-18th century regular fields in the southern portion of the area. The size of the fields in this area is noticeably smaller than those to the north of the area. The priory grounds at St Osyth are former medieval deer park, re-landscaped in the post-medieval period. There are a number of areas of ancient woodland, which congregate on the higher ground in the northern half of the area. Historically settlement was very dispersed, with only two small foci, at St Osyth and Little Clacton. Otherwise the settlement comprised isolated manors, farms and cottages. The present pattern reflects the 20th century trend for seaside holidays, with a mixture of plotland style development and caravan parks at Point Clear, and ribbon development along the road to Clacton. Post 1950's boundary loss can be described as moderate, rising to high in a number of areas, particularly on the edges of Clacton.

46. Clacton urban area

The modern urban area of Clacton-on-Sea. The town developed as an early 19th century seaside resort. Much of the current urban area however dates to the post 1960s.

47. Colne Point

An area of current and former marshland, sited at the mouth of the Colne estuary. The geology comprises alluvial deposits overlaying London Clay. The field boundaries comprise drainage channels, mainly without banks or hedges, many following the sinuous course of the former creeks. The south eastern corner contains a number of caravan and mobile-home parks, facing on to the beach. Otherwise the settlement is largely limited to the dryland boundaries of the area. The western end of the tidal marsh is a nature reserve. There is no post 1950s boundary loss.

48. Lea-Stort Valley

The Lea-Stort Valley forms the western boundary to the southern half of Essex. The rivers were canalised in the 19th century. The valley is broad and flat-bottomed with steep-sides. The northern end cuts through head deposits, then progressively through glaciofluvial deposits, alluvium and London Clay as it heads southwards. The gravel deposits around the Roydon area have been extensively extracted, resulting in a landscape of lakes and reclaimed land, parts of which have become nature reserve or adapted for leisure uses. The area has attracted industry linked with the use of water, in particular the gunpowder works at Waltham Abbey and the glasshouse horticultural industries of Nazeing and

Roydon as well as numerous mills along the river itself. The fieldscape in the valley bottom consisted largely of meadow pasture, often originating as common and subsequently enclosed, or managed wetland, these are medieval or earlier in origin. Part of the area forms the Lea Valley Country Park. The historic parishes of Roydon and Nazeing are described in their respective Historic Settlement Assessment Reports. Post 1950s boundary loss can be described as moderate to high, in places this as resulted in former enclosed common reverting to its medieval dimensions.

49. Harlow urban area

The modern urban area of Harlow. This incorporates the Roman town of Harlow, the Saxon settlement of Harlowbury, and the medieval and post-medieval settlements of Churchgate Street, Old Harlow, Potter Street, the Parndons, Netteswell and Latton. The development of the New Town of Harlow began in the 1950s.

50. The Lavers ridge

A ridge of higher ground, cut by numerous small streams above the Lea-Stort valley. The upper levels comprise boulder clay, with London Clay and Head deposits exposed in the valley sides. The fieldscape comprises large irregular fields (these are probably of medieval origin and some maybe even older), interspersed with occasional former common arable enclosed by later agreement, which are more common in the western part of the area. There are small areas of enclosed meadow pasture along some of the larger streams. There are several small areas of ancient woodland, but no larger areas. Historically the settlement pattern is dispersed, comprising church/hall complexes, moated sites, manors, farms and small hamlets, the latter often strung out along linear and roadside greens. This pattern is still evident, although there is a greater degree of linear settlement along the roads and greens due to infilling. The degree of post 1950s boundary loss can be categorized as limited to moderate.

51. Roydon and Nazeing

An area of higher ground overlooking the Lea-Stort valley. The geology comprises London Clay and boulder-clay soils. Until the 20th century the Roydon and Nazeing area had a dispersed settlement pattern of scattered manors, farms and cottages, with the principal settlements located at Roydon and Lower Nazeing. Much of the land is used for agriculture, with an emphasis towards glasshouse market-gardening in the southern portion of the parish. The historic fieldscape comprised a mixture of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) belonging to the manorial demesnes and larger farms, and large common fields which were farmed on the strip method by both the manor and it's tenants. These commons once formed the most distinctive element of the landscape. They were subsequently enclosed, some in the later medieval period and the remainder in the 19th century. However, post-1950 boundary removal has restored some of these common fields to their original dimensions. Analysis of the hedgerows from the cartographic evidence shows that their survival levels are quite good; those that separated the irregular fields belonging to the demesnes and bigger farms largely survive, and the original medieval boundaries of the common fields are also largely intact although there later subdivisions have been mostly removed. There are a number of areas of

ancient woodland. Historic Settlement Assessment Reports have been completed for both Roydon and Nazeing parishes.

52. Waltham Abbey

The modern urban area of Waltham Abbey, this incorporates the Abbey itself, the historic settlement of Waltham Abbey and two areas of industrial usage in the Sewardstone Street area. A Historic Town Assessment Report has been completed for Waltham Abbey.

53. Copped Hall Ridge

The western slope of the ridge between Epping Forest and the Lea Valley. The geology is largely London Clay, with some Claygate beds on the top of the ridge. The area is characterised by a high density of historic park, including Copped Hall, Warlies, Beech Hill and Gilwell Parks. 20th century leisure in the form of golf courses also form a major part of the landscape. The remainder of the landscape comprises pre-18th century irregular enclosure (these are probably of medieval origin and some maybe even older) and former common arable enclosed by later agreement, the latter is more common in the northern half of the area. Historically the settlement pattern is dispersed, comprising church/hall complexes, manors, farms and small hamlets, the latter often strung out along linear greens. This pattern is still evident, although there is a greater degree of linear settlement along the roads and greens due to infilling. Post 1950s boundary loss can be described as low to moderate.

54. Epping Forest

Epping Forest is medieval in origin. It lies on a long ridge comprised of a mixture of gravels and Bagshot Beds overlying Claygates, which in turn overlies London Clay. Beech is dominant on the top of the ridge with hornbeam on the slopes. The area was designated Common, virtually all the trees were pollarded and the Forest was used as wood-pasture. Monuments within its boundary include extensive warrens and the hill-forts of Ambresbury Banks and Loughton Camp. The Epping Forest Act of 1878 vested ownership of the forest in the Corporation of the City of London and preserved it ‘for the enjoyment in perpetuity by the citizens of London’.

55. Loughton and Chigwell urban areas

The modern urban areas of Loughton and Chigwell. The two urban centres are separated by the River Roding, the M25, some farmland and a nature reserve. Both centres originated as dispersed settlement, with a loose focus around a church/hall complex. Their modern dimensions are the result of rapid expansion post World War II. Historic Settlement Assessment Reports have been completed for both Loughton and Chigwell parishes.

56. Hainault Forest

This area consists of the northern (and only surviving) portion of the medieval Royal Forest of Hainault. In 1851 Hainault Forest was disafforested and in 1858 the Hainault Forest Allotment of Commons Act provided that 317 acres in Chigwell, Lambourne and Dagenham should be allotted as common to the parish

of Lambourne. The Stapleford Common area was enclosed in the 19th century, and part of it became plot-lands in the early 20th century. The settlement is historically dispersed in nature and was spaced out along the edges of the forest and commons. Modern development has infilled many of the gaps making it now largely linear in plan.

57. Lower Roding Valley

The area is bisected by the valley of the River Roding. Running down into this from the higher ground on either side are numerous small tributary streams. The geology is very mixed, with London Clay overlain in patches with Boulder Clay and head deposits, glacial river terraces are exposed in the valley sides and the valley is floored with alluvium. There are extensive tracts of pre-18th century sinuous fields interspersed by patches of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older). These latter field forms appear in some case to be a response to the local topography of small side-valleys. Along the Roding and some of the tributaries are extensive stretches of enclosed meadow pasture. There are numerous small areas of ancient woodland, many of which were springs or shaws planted in the 17th and 18th century for the shooting of game-birds. The parks of Hill Hall and Bishops Hall are medieval in origin. Stapleford Tawney Airfield was built in the 1930s. Historically the settlement pattern is dispersed, comprising church/hall complexes, manors, farms and small hamlets. A feature of this area are the numerous shooting lodges built in the 17th and 18th century. The principal historic settlements are Abridge and Stapleford Abbots. The landscape of Lambourne is still predominately rural and retains many elements of the historic environment including the farms, hedgerows, meadows along the Roding and woodland. There has been limited post-1950s boundary loss, rising to moderate-severe in the area affected by the construction of the M25. However this boundary loss has not affected the overall sinuous pattern of the landscape. A Historic Settlement Assessment Reports has been completed for Lambourne and Abridge parish in this area.

58. Epping urban area

The modern urban area of Epping comprises the historic core and the areas of more recent expansion. Also included within this area is the historic settlement of Theydon Bois. A Historic Town Assessment Report has been completed for Epping.

59. Wintry Forest

Wintry Forest and the neighbouring woods were originally part of medieval Epping Forest. They lie on the northern end of a long ridge comprised of a mixture of gravels and Bagshot Beds overlying Claygates, which in turn overlies London Clay. Beech is dominant on the top of the ridge with hornbeam on the slopes. The Wintry Forest area was designated Common and virtually all the trees were pollarded; the Forest was also used as wood-pasture. Gaynes Park and Coopersale Park lie on the southern flanks of the forest and originated as medieval parkland. The fields are largely of the pre-18th century irregular form (these are probably of medieval origin and some maybe even older), probably the result of assarting. There are some patches of later enclosure on the northern boundary. There is very little settlement due to the predominant land-use of woodland and park, and what there is, is dispersed.

60. The Rodings

This area comprises the middle reaches of the Roding valley and its tributaries. The valley sides comprise gentle boulder clay slopes, with head and glaciolacustrine deposits in the valley floor. This area encompasses much of an ancient Saxon territory known as the *ħrodingas*, which stretched from High Roding in the north down to Beauchamp Roding in the south. The HLC area however also includes the medieval market town of Chipping Ongar. With the exception of Chipping Ongar the settlement pattern is of a highly dispersed nature, comprising church/hall complexes, isolated farms and cottages, many moated sites and small hamlets. The overall grain of the landscape is very irregular, with numerous small twisting roads and lanes linking the settlement and the many small tributary valleys. On a macro-scale the field type can be described as pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), although on a micro-scale there is evidence of pre-18th century co-axial sinuous fields within the individual farms. There are enclosed meadows along the Roding and many of its smaller tributaries. Small scattered areas of ancient woodland are located on the ridges between the tributary valleys. It is probable that much of this fieldscape is very ancient indeed, and may well have its origins in the late Saxon period. The High Ongar Historic Settlement Assessment report established that the boundary of an estate recorded in 1062 is still visible on the modern map. On the western edge of the area is the Second World War airfield of Matching Green. Post 1950s boundary loss can be described as slight to moderate.

61. West of Chelmsford encompassing the Can valley

Gently undulating countryside forming the catchment of the River Can. The geology is Boulder Clay with head and alluvial deposits in the river valleys. The area has a historic dispersed settlement pattern, often originally focussed on greens, with scattered farmsteads surviving. There are many small irregular fields of ancient origin across the area, with pockets of sinuous co-axial fields. Significant boundary loss, particularly in the north on the higher ground, has given an open feel to the countryside. There are a few, small woods of ancient origin surviving. There are also a few ponds. Small roads and green lanes link the settlements, and have survived. Post 1950s boundary loss is moderate to high.

62. The Willingales area

This area comprises a ridge of higher ground on the eastern side of the Roding valley, drained by a number of small streams. The geology is predominately boulder clay, with occasional pockets of sand and gravel and head deposits in the southern portion of the area. In the southern half of the area is the historic settlement of Blackmore, set in a landscape of former common. This wasn't enclosed until the late 19th century and long thin fields of pre-18th century date. To the north and west the fields become noticeably larger and wider although they are still quite regular in shape. This gradually changes to pre-18th century irregular fields (these are probably of medieval origin and some maybe even older) in the northern part of the area. In this area the historic settlement pattern is highly dispersed, comprising manors, farms and small hamlets. There are a number of enclosed meadows in the stream valleys and a number of small areas of ancient woodland. Willingale airfield is located on the western side of the area. The area is

overwhelmingly rural in character. There has been some post-1950s boundary loss, slight to moderate in most areas, but rising to high on a number of farms on the northern edges.

63. Navestock Heaths

An area of gently undulating countryside, with a central ridge dropping gently to the east towards Brentwood and more steeply to the west into the Roding valley, which forms the western boundary of this area. The geology is complex, but mainly comprises an underlying layer of London Clay, which is occasionally visible on the surface. Overlying this is a layer of Boulder Clay capped on the top of the ridge with gravels, the Roding Valley contains alluvium silts and gravels. It is the gravels on the ridge top and the heaths associated with them that give the area its particular character. Historically the area contained a complex network of heaths and commons, some of which were enclosed in the early post-medieval period and some in the 18th century. In the north-west corner, around Stondon Massey, the field pattern changes to pre-18th century irregular fields (these are probably of medieval origin and some maybe even older). There is an extensive area of enclosed meadow along the banks of the River Roding. There are a number of parks, some medieval in origin. In the northern half of the area are areas of ancient woodland, some of which show signs of having been modified to form shaws or springs for game management. The historic settlement for the area was highly dispersed and rather sparse, comprising isolated manors, farms and very small hamlets, the latter spread out along the fringes of the heathland or at road junctions. Post 1950s boundary loss can be described as moderate, however in many case this has taken the form of the removal of later enclosure within the original commons.

64. Brentwood urban area

The modern urban areas of Brentwood and Shenfield. These incorporate the historic town of Brentwood and the historic dispersed settlement of Shenfield. A Historic Town Assessment Report has been completed for Brentwood.

65. Ingatestone area

A gently undulating area to the north of Brentwood, bisected by the A12. The geology consists of London Clay, overlain in part by head deposits and boulder clay with occasional patches of gravel. It is a largely rural landscape with Ingatestone village forming the only substantial built-up area. The field pattern is rather mixed. To the east and south is an extensive area of pre-18th century co-axial enclosure, to the north and north-east is an area of pre-18th century irregular fields (these are probably of medieval origin and some maybe even older), some of which may be the result of intermittent woodland clearance along the edges of Writtle Forest. To the north of Henley Green were several, possibly medieval, strip fields until the twentieth century; these were long and narrow in plan. The place-name evidence suggests that the area encompassing Ingatestone and the adjoining parishes of Mountnessing, Margaretting, Fryerning and Buttsbury in the upper Wid valley formed a single Saxon estate. Historically the settlement pattern has been very dispersed, with Ingatestone itself forming the only exception to the rule. There are a number of areas of ancient woodland, the largest is of which is Thoby Wood. There are also a few small areas of parkland attached to mansion houses. There are some patches of enclosed meadow along the River Wid.

66. Hylands Park, Writtle and Highwood

This area is located on the south facing side of the rolling plateau which lies between the River Wid to the south and the River Can to the north. The geology comprises Boulder Clays in the western half of the area, with head deposits to the north and outcrops of Claygate Beds to the south and east. Anciently, this area was part of Writtle Forest, a medieval hunting forest. Substantial pockets of woodland survive, as does the historic settlement pattern of dispersed villages focussed on greens and commons, and scattered farmsteads in an irregular field and woodland pattern. Only within Writtle itself has development gradually spread to encompass two greens and take on the characteristics of a nucleated settlement in relatively modern times. There has been moderate boundary loss, creating some areas of large, but still irregular, fields. Hylands Park has been the focus of greatest boundary loss, but the park itself adds considerable character to the area.

67. Chelmsford urban area

The modern urban area of Chelmsford, this incorporates the historic Roman, medieval and post-medieval town as well as the historic villages of Widford, Great Baddow and Springfield.

68. East of Chelmsford, encompassing the Middle Chelmer valley

Rolling countryside dropping down to the middle Chelmer valley, bounded on the southeast by Danbury Hill. Geologically this area is very complex, the north-western corner comprises Boulder Clays, and to the south and east in the valley of the Chelmer there are brickearths, glaciofluvial sands and gravels, head deposits and alluvium. There is a historic dispersed settlement pattern of scattered farmsteads, with nucleated settlement at Boreham. The historic field pattern shows a predominance of medium to large fields with straight boundaries, including 18th to 19th-century enclosure in the south of the area, and with a pocket of small irregular fields to the northeast. There were also water meadows along the river valley and a historic park and gardens around New Hall School and Boreham House. Moderate to significant boundary loss has created larger fields, but these still respect the historic pattern. The area contains an airfield, the modern arterial route of the A12, and areas of gravel extraction. Modern development is focussed around Boreham. The level of post 1950s loss can be described as moderate to high on some farms.

69. Lower Chelmer and Blackwater valleys

An area to the north of Maldon comprising the floodplain and valley-sides where the lower reaches of the Chelmer and Blackwater rivers converge. Geologically this area is very complex, the northern edge comprises Boulder Clays, and to the south and east in the valley of the Blackwater there are brickearths, glaciofluvial sands and gravels, head deposits and alluvium, with outcrops of London Clay on the southern edge of the area. The fieldscape largely comprises pre-18th century fields (these are probably of medieval origin and some maybe even older), mostly regular in plan. On a micro-scale there is a considerable degree of co-axiality in their layout, usually relating directly to the immediate topography. The river valleys

are marked by enclosed meadow. There are some areas of ancient woodland, primarily along the eastern side of the area. There are also a number of parks of medieval origin; these include Langford Park and the former site of Hatfield Peverel Priory. Historically the settlement is dispersed, comprising church/hall complexes, isolated manors, farms, moated sites and small hamlets. The only nucleated settlement of any size is Hatfield Peverel. Post 1950s boundary loss can be described as moderate, however the overall grain of the historic landscape is still clearly visible. There has also been extensive modern mineral extraction to the south-west of Witham.

70. Danbury Hill

This is a prominent hill in the east of the Borough. The hill top is occupied by the villages of Danbury and Little Baddow, together with several Nature Reserves and a Country Park in the grounds of Danbury Palace. Historically, the settlement was dispersed around several commons and greens, with a small nucleation around the church in Danbury. This settlement pattern has been added to, mostly along the roads, with the commons preserved as nature reserves. The field pattern in the remaining small areas are small and irregular, of ancient origin. There are also areas of ancient woodland on the hill.

71. Southeast of Chelmsford, between Great Baddow and the Crouch

This area lies on the watershed between the Chelmer and the Crouch, being gently rolling in the north, but dropping steeply down into the Crouch valley to the south.

The new town of South Woodham Ferrers has been built just north of the river Crouch. Historically, the settlement pattern was dispersed, some of it being focussed on commons. There were also scattered farmsteads. This pattern has survived with more recent nucleations of settlement at Bicknacre, East Hanningfield and Rettendon. There are irregular fields mixed in with the predominant co-axial fields of ancient origin. The co-axial fields are mostly aligned east to west. The commons were mostly enclosed by the 19th century, but part of their extent can be seen in the surviving field boundary pattern. Significant boundary loss has resulted in the creation of larger fields, but these still respect the general alignment of the co-axial field system in most cases. There are a few ancient woodlands on the north of the area. Marsh Farm Country Park preserves areas of salt marsh and grazing marsh adjacent to the River Crouch, thus retaining much of its original character.

72. South of Chelmsford, around Hanningfield Reservoir, Stock and Margaretting

This is a hilly area forming a ridge between the River Wid and the Sandon Brook, both of which drain northwards to the Chelmer valley. The geology comprises head deposits and Claygate beads, topped with sands and gravels. The valley of the Sandon Brook was dammed to form Hanningfield Reservoir. The area is also cut through by the A12 Chelmsford bypass and the main line railway from London up through Chelmsford. The historic settlement was dispersed with scattered farmsteads, some of the settlement being focussed on commons, which lay along the highest ground. Some of the villages have seen more recent development, creating a more nucleated appearance. Galleywood in particular has grown

considerably, but it has also retained its common. The field pattern consists of many small fields of ancient origin, both grid-like co-axial and irregular in shape. Moderate to significant boundary loss in the north of the area has created larger fields. There are many small patches of ancient woodland through the area. Post 1950s boundary loss can be described as moderate in the northern half of the area, dropping to low in the southern half, it is of course total in the area of the reservoir.

73. Billericay urban area

The modern urban area of Billericay. Historic Billericay had three separate foci. The area of Norsey Wood contains Iron Age evidence, later becoming a medieval deer-park. To the south was a Roman town or village. The medieval and post-medieval town occupied the space between the two. Medieval Billericay was a thirteenth century creation of the monks of Stratford Langthorne Abbey, and was built on waste-land, where the Mountnessing and Great Burstead parish boundaries met. The post-medieval town expanded in the form of ribbon development along the existing medieval street structure. It was not until the 20th century that the town took its present form. A Historic Town Assessment Report has been completed for Billericay.

74. Upper Crouch Valley

An area of rolling topography around the valley of the upper Crouch with little woodland. The geology comprises London Clays and Claygate beds, topped with patches of boulder clay. There are strong urban edge influences in many places. The historic settlement pattern was dispersed with church/hall complexes, scattered farmsteads and moated sites. This pattern survives with the addition of limited areas of roadside settlement and plotlands. There is a strong rectilinear pattern of field boundaries of ancient origin, the dominant grid for all the fieldscape is however broadly north-south. The HLC records large blocks of surviving irregular fields (these are probably of medieval origin and some maybe even older) across the northern part of the area, these are very similar to the areas of regular fields, although slightly less regular in character, so the distinction many not be entirely valid.

75. Wickford urban area

The modern urban area of Wickford is largely a post World War II development, but incorporating the historic settlement of Wickford.

76. The Crouch valley, east of South Woodham Ferrers

This area is on the south facing slope of the Crouch valley. The geology comprises London Clay and Claygate beds with occasional small patches of Bagshot formation sands and gravels. The south of the area is crossed by a major road and the London to Southend railway line. The settlement pattern is very dispersed, consisting mostly of scattered farmsteads along the slope. It has been augmented by more recent development along some of the roads. Runwell, at the bottom of the slope has grown considerably. The field pattern is strongly co-axial, of ancient origin, aligned approximately north-south, also evident in the road pattern. Boundary loss has occurred, but has had minor impact over most of the

area, preserving the character of the landscape. There are a few patches of ancient woodland.

77. Marshes to the north of the River Crouch

An extensive area of present and former marshland with wide views to the east and across the estuary to the rising ground to the south. Much of this area is managed by the Essex Wildlife Trust as grazing marsh. The field boundaries are large drainage ditches, mainly without banks or hedges, some following the sinuous course of the former creeks. The marshes were largely reclaimed in the 18th century. Bridgemarsh Island had also been reclaimed by the 18th century, and was subdivided into fields. The sea wall is now breached and most of the land either eroded away or reverted to marsh. Otherwise post 1950s boundary loss can be regarded as slight.

78. The Dengie peninsula

An extensive area of land, bordered by marshes to the north, east and south, and the Blackwater estuary, the North Sea and the Crouch estuary respectively. The resulting peninsula has a ridge of higher ground running down the centre, drained by a few small streams. The geology largely comprises London Clay, with small patches of river terrace sands and gravels and head deposits. The field system is similar to that of the Canewdon area to the south of the Crouch, comprising a distinctive co-axial rectilinear field pattern (known as Dengie-form after this area). These are of considerable antiquity, and may have their origins in the middle Saxon period, if not before. Field boundaries were historically bordered by elm hedgerows, most of these were badly affected by Elm Disease, with the loss of the standard trees, the hedges now largely comprise elm scrub. The historic settlement was highly dispersed, comprising church/hall complexes, manors, isolated farms and cottages, and was largely scattered along the roads along the top of the ridge. The principal modern settlement is Maylandsea which largely comprises modern housing estates, with smaller modern settlements at Althorne, Latchingdon and Cold Norton. Post-1950s boundary loss can be described as slight to moderate, although this depends to an extent on the individual farm. However, even where there has been moderate boundary loss the overall grain of the ancient fields is still a tangible landscape feature.

79. Maldon urban area

The modern urban area of Maldon. This includes the site of the Roman town of Elms Farm and the Saxon, medieval and post-medieval town of Maldon. This area now also incorporates the former village of Heybridge.

80. Northey and Osea Islands

This area comprises the two low-lying alluvial islands of Northey and Osea, that are located at the inner end of the Blackwater estuary. Both are of natural origin. Northey is known to have existed in the 10th century when it played a pivotal role in the Battle of Maldon. However they have been subsequently modified by further reclamation and sub-division into rectangular fields. At Northey this process is now being reversed with the breaching, both accidentally and also deliberate, of sea-walls to allow tidal egress. The site is managed by the National Trust. Each island supported one farm apiece. Northey is linked to the mainland by a causeway of

Saxon origin. Osea can only be accessed by boat. There is no post 1950s boundary loss on Northey Island, however the loss on Osea island can be described as high.

81. Marshes to the south of the River Blackwater

An area of present and former grazing marsh, saltmarsh, creeks and mudflats along the southern edge of the Blackwater estuary. The historic landscape in this area was developed through a closely integrated economic and social relationship with the neighbouring HLCAs. Easily the most striking feature of the historic landscape is the sinuous seawall which runs continuously along the northern edge of the estuary. Lawling and Mayland creeks form a large embayment fringed with saltmarsh. There are extensive views across the estuary and out to sea. The field boundaries are large drainage ditches, mainly without banks or hedges, some following the sinuous course of the former creeks. The marshes were largely reclaimed in the 18th century. The settlement is, in the main, highly dispersed, comprising isolated farms. The older of these are located on the boundary between the former dryland and the marsh, whilst those of 18th and 19th century origin are sited on the reclaimed land. The only sizable settlement is the largely modern village of St Lawrence, and its attendant caravan parks, sited on the former Ramsey Island. Post-1950's boundary loss can be regarded as slight.

82. Bradwell Marshes

The Bradwell Marshes comprises an area of drained curvilinear reclamation. The geology consists of tidal flat deposits overlaying London Clay. This tends to be 18th century or earlier in origin. Remnants of the original seawalls are still visible as relict landscape features. The field boundaries comprise water-filled ditches. The character of the landscape is very flat and open with extensive views across the marshes. Post 1950's boundary loss can be considered moderate to high.

83. Marshes at the east end of the Dengie peninsula

This area is sited on the eastern edge of the Dengie peninsula, the geology comprises tidal flat deposits overlaying London Clay. It consists of a mixture of drained rectilinear reclamation, largely of 19th or early 20th century date. In addition there is some earlier reclamation, of 18th or early 19th century date, that was subsequently straightened and given a rectilinear pattern. The most striking feature of the historic landscape is the sinuous seawall which runs continuously along the eastern edge of the reclaimed marsh. Beyond this is an expanse of unenclosed tidal salt-marsh, fringed by banks of shells at the northern end. There are extensive views out to sea. The historic landscape in this area was developed through a closely integrated economic and social relationship with HLCAs 12, 13 and 15. The field boundaries comprise water-filled ditches and the character of the landscape is very flat and open with extensive views across the marshes and seawards. Post 1950's boundary loss can be considered moderate. This area is partially covered by the Tillingham and Bradwell-on-Sea Historic Settlement assessment reports.

84. Dengie Marshes

The Dengie marshes comprises an area of drained curvilinear reclamation. The geology comprises tidal flat deposits overlaying London Clay. This tends to be 18th century or earlier in origin. Remnants of the original seawalls are still visible as relict landscape features. The field boundaries comprise water-filled ditches. The character of the landscape is very flat and open with extensive views across the marshes. Post 1950's boundary loss can be considered moderate.

85. South Ockendon area

At the edge of Greater London, this is a transitional landscape between urban and rural, with strong urban edge influences, noise and visual intrusion from the M25 and A13. The geology comprises sands and gravels, of which nearly 50% have been quarried. The topography is gently undulating and the area contains a large number of areas of standing water, along with watercourses and drainage ditches. The ponds and lakes have a variety of origins, ranging from medieval moated sites to historic and modern extractive pits for sand and gravel and dammed river valleys. The fields in the area are generally regular and of larger sizes, with variable quantities of hedgerow trees. The settlement pattern consists of scattered farmhouses, with no nucleated villages and limited roadside development. Small blocks of woodland are scattered across the landscape, many are ancient in origin. The post 1950s boundary loss can be described as moderate, rising to severe in the quarried areas.

86. Mar Dyke lowlands

A large character area around the Mar Dyke with a distinctive grid-like grain to its layout of ancient origin. This is generally a low lying basin of land rising steadily to the east and with a raised island to the west. The surrounding landscape rises in all directions, it is intensively farmed and strongly rural in character. In the low lying areas field boundaries are provided by drains and the fields themselves are generally regular in shape, long slightly sinuous boundaries run down from high ground to the north. Distinctive tall hawthorn/elm hedgerows follow wide verged historic lanes and tracks across the area. The area contains some small reservoirs along with a scattering of smaller ponds and some medieval moated sites, small ponds were a common feature of the post-medieval landscape. Much of the low lying land was fen commons until the 1930s. The dispersed farms are generally located along the roadsides, and settlement is clustered around the handful of nucleated crossroad settlements located in this area.

87. South Essex Ridge

A complex landform of undulating hills and ridges with panoramic views over the Thames and North Kent. The geology comprises a complex mix of London Clay, Claygate beds, and sands and gravels. It is heavily wooded, and contains within its bounds the extensive historic parklands of Thorndon Park and Weald Park. Both of these are medieval in origin and were extensively re-landscaped in the 17th and 18th centuries. Smaller areas of woodland, copses and shaws can be found scattered across the landscape, many are of ancient origin. There are several small lakes, including dammed river valleys. There is a strong linear grain to the landscape, running SE-NW, reflecting the historic functional integration of this area with the low-lying areas to the south. The fields are probably medieval in

origin and could be even earlier. The historic settlement pattern was dispersed around commons, including linear commons, and along roads. To a large extent this pattern survives, although there has been a tendency for settlement to coalesce creating linear villages along roads. Where fields exist between the parks and copses, they are small and regular, and appear to have their origins as assarts into the woodland. Large areas have been designated as 20th century recreation on the HLC, this reflects use rather than morphology. The post 1950s boundary loss on the south-western edge of the area can be described as moderate to high, whilst it is low on the northern and eastern side.

88. South Essex Hills

This area is located on top of the Essex hills and has a gently undulating topography drained by small streams culminating in a dissected ridge overlooking the headwaters of the Crouch and Mar Dyke. The geology comprises London Clay overlain by Claygate beds and the occasional patch of Boulder Clay. There is a strong north-south grain to the landscape in this area reflected in both the network of tracks / lanes and the field pattern, sliced through in the south by the modern A127. In the northern part of the area there are significant north-south routes but the grid-like pattern of fields is replaced by a more localised irregular pattern. These are probably of medieval origin and some may be even older. The woodland is characteristic of the landscape and varies significantly in size and form with occasional shaws, tree belts, and valley side woods; this perhaps reflects a process of assarting. The historic settlement pattern was dispersed with church/hall complexes, moated sites, and scattered farmsteads. This has been supplemented by linear roadside development and some plotland development particularly in the south and east. Significant boundary loss has created prairie fields, though many blocks of irregular and regular fields still survive, along with small blocks of woodland. These fields are probably of medieval origin and some maybe even older.

89. Basildon urban area

The modern urban area of Basildon, developed as a new town in the 1950s and 60s, replacing one of the largest concentration of plotlands in Essex.

90. Laindon Hills

The rounded sand and gravel hills and ridges create a varied topography that rises steeply to the Westley Heights. The area is well wooded, with both ancient woodland and secondary wood developed on abandoned plotland. There is a strong surviving patchwork of pasture field bounded by thick hedgerows. The relatively dense settlement pattern appears to have been one of ancient dispersed farmstead, supplemented by plotland development set in blocks around the hillside. Discrete areas of both regular and irregular fields of ancient origin survive between the settlement and woodland. There is a strong leisure use, with the Langdon Hills Country Park and Nature Reserve. In the north west of the area some field boundary loss has created large fields. The area has a varied and complex character and morphology, reflecting human interaction with a topography that differs significantly to that of the flatter plain to the west and south.

91. North of Fobbing

Undulating land between the settlements at Stanford-le-Hope/Corringham and Basildon. The geology comprises London Clay, overlain buy head deposits in the south-western half of the area. The area is largely devoid of settlement, with the exception of the rows of houses on the ridge to the east. The arable fields are generally regular and there appears to have been some 20th century boundary loss, resulting in some prairie fields. The dominant northwest-southeast alignment of fields, common to this area of Essex, can still be traced in the landscape. Hedgerows are generally low with few trees. The hard urban edges and the A13 intrude visually and acoustically into the area. The post 1950s boundary loss can be described as low to moderate, rising to high on a few farms.

92. Corringham urban area

The modern urban area of Corringham and Stanford-le-Hope, this incorporates the historic cores of both settlements.

93. Orsett/Mucking North Thames gravels

A ridge of Thames terrace gravels, with panoramic views across the Thames. The ridge is broken by valleys and bounded to the north and south by marshland and to the east and west by settlement. The high ground reaches out to the Thames as a promontory between the marshes and at its tip is the historic Coalhouse Fort and dismantled battery. Historically the settlement pattern was, with the exception of small nucleated settlements sited on high knolls in the north, dispersed. This settlement pattern broadly survives, with the addition of some ribbon development and a nucleated settlement at East Tilbury created between the wars in the Czech modernist style to serve the Bata factory.

The historic field pattern is complex. In the north the pattern is strongly rectilinear, roughly north west/south east, with considerable variation in field size. In the centre fields were very large and less rectilinear, perhaps the result of early enclosure of heathland. In the south there is again a rectilinear pattern either side of and aligned on the possible Roman road to East Tilbury. Despite disruption through modern development, and some boundary loss, these patterns survive. The fields are used for arable and pasture and horse grazing is common. Modern uses include recreation, such as golf courses, gravel pits and disused workings and nurseries.

94. Grays and Tilbury urban area

The modern urban area of Grays and Tilbury, this incorporates the historic settlements of Grays, West Tilbury and Chadwell-St-Mary.

95. Tilbury marshes

This area of flat reclaimed land comprises the largely undeveloped section of Tilbury Marshes, between the Orsett/Mucking ridge and the River Thames. The geology entirely comprises estuarine alluvium. The Tilbury Power Station dominates the visual landscape of the area and creates a dramatic contrast to the surrounding marshland. The fields are generally regular (straight bounded) and of a variety of sizes, historically grazing marsh now predominately in arable use. The area also contains active and disused gravel workings. There is no settlement in

this area. The HLC describes most of the fields as prairie. This description does not reflect the nature of the fieldscape although some fields may have lost internal boundaries.

96. Mucking Marsh

An area consisting of reclaimed marsh land that has been subject to sand and gravel extraction, this has left an open and exposed landscape largely denuded of historic features. With rare exceptions such as surviving counter walls, and the relatively intact area of Stanford Marsh, the historic landscape features have been removed and few fields survive. A series of lakes and ponds have been created by recent extraction. The historic settlement pattern comprised the church/hall complex at Mucking, which survives, and the wharf at Mucking Creek. The HLC describes most of this area as prairie field, whilst much of the land appears to be disused or active extractive industry. It is probably this activity that has resulted in the removal of field boundaries, not agricultural rationalisation. The post 1950s boundary loss is high.

97. Fobbing/Corringham ridge

A low lying ridge elevated above the Thameside Marshes to the south and, to the north, the historic cores of Stanford-le-Hope/Corringham/Fobbing on the edges of extensive 20th century development. The geology comprises head deposits, overlain by river terrace sands and gravels on the top of the ridge. The fieldscape of the area is dominated by large and regular fields partly resulting from 20th-century boundary loss and partly reflecting the historic field pattern. The area contains a small number of farms elements of the historic dispersed settlement pattern now located on the outskirts of the settlement. The track network runs across the area linking between the inland areas and the marshes, which were once part of an integrated economic system. The post 1950s boundary loss can be described as moderate rising to high in the northern part of the area.

98. Shellhaven/Coryton

This area is occupied by an oil refinery with associated oil storage and works. It is set on the Thames floodplain on the banks of the estuary, and has several jetties leading out to the water. It forms a dominant visual element of the landscape of the area, particularly the flares.

99. South Essex marshes

This is an area of grazing marsh on the Thames floodplain. The geology comprise tidal flat deposits overlaying London Clay. Small pockets of arable exist within the mix of blocks of regular and irregular fields. The fields are bounded by drains and interspersed with several marshy creeks, the boundaries are mainly of medieval/early post-medieval origin resulting from the creation of the grazing marsh, some elements of the earlier saltmarsh creeks can be discerned. Earthwork counter -walls and other flood defences survive in places. The industrial complex at Shellhaven is prominent in views from the area. Post 1950s boundary loss is low.

100. Pitsea Marshes

The northern part of this area is mainly secondary scrub woodland in an area of early 20th-century industrial land, now used as a country park. The geology comprises tidal flat deposits overlying London Clay. The southern part is an area of disused modern mineral extraction used for tipping. The area lies in the middle of reclaimed South Essex Marshes. Mineral extraction has removed the historic field structure from this area.

101. Rawreth area

This is an urban edge landscape, containing several large road corridors running both north-south and east-west, and an east-west railway line. The geology comprises London Clay dissected by head deposits. Several lines of power pylons 'march' across the landscape. The historic settlement pattern was dispersed with church/hall complexes, moated sites and scattered farmsteads, now augmented by localised plotland development and roadside settlement. The field pattern has a strong north-south or northeast-southwest grid of ancient origin, significant boundary loss has created prairie fields although in some places areas of smaller fields survive.

102. Crouch valley around Battlesbridge

A gently undulating series of valley sides, around the tidal limit of the Crouch estuary. The geology comprises London Clay, head deposits are exposed in the valley sides and there are tidal flat deposits on the valley floor. Within the area the historic settlement pattern largely survives with the settlement of Battlesbridge, supplemented by a small number of scattered farmsteads. The fields have experienced moderate boundary loss and are now classed as prairie fields, however the grid structure persists in the area on a broad north-south axis.

103. Hullbridge urban area

Urban area of Hullbridge, developed from plotland settlements now heavily infilled with post 1950 development.

104. Crouch and Roach marshes

A flat landscape of medieval /post medieval grazing marshland on the southern bank of the river crouch and northern bank of the river Roach. The geology comprises London Clay, overlain along the river edge by tidal flat deposits. The area contains little settlement and few buildings. There are both regular and irregular shaped fields, perhaps reflecting varying stages of development and reclamation. There is a strong sense of openness and space with wide expansive views across the estuary. Post 1950s boundary loss is high.

105. North of Hockley, Ashingdon area

This is an area of rolling topography surrounding the settlements of Hockley, Hawkwell and Ashingdon. The geology comprises London Clay with areas of head deposits in the northern half. This is a patchwork landscape consisting of small areas of regular and irregular fields, interspersed with ancient and secondary woodland. The historic settlement pattern was dispersed and is now augmented by former plotlands. This area is influenced by the neighbouring urban areas and

is well settled. Post 1950s boundary loss is low to moderate, there are however many additional boundaries relating to the subdivision of the fields into plotlands.

106. Hockley urban area

Urban area of Hockley, a historic core, with post World War II dispersed plotland development which was subsequently regularised.

107. Rayleigh Hills

Located to the south of Hawkwell, Hockley and Rayleigh, this area of rolling hills and valleys contains little settlement and few roads. The geology comprises former river terrace deposits at the eastern end of the area, head deposits in the central area and London Clay and Claygate Beds in the northern half. The area contains a significant number of ancient woodlands, many in conservation ownership. The south east of the area contains golf courses, extractive sites, and Southend Airport. Areas of irregular and regular fields survive. 20th-century boundary loss, particularly to the east, has created prairie fields, this area was however historically characterised by large fields. The overall post 1950s boundary loss can be described as low to moderate. The fieldscape lacks a strong grid and instead seems to respond to historical routeways and topography.

108. Rayleigh urban area

The modern urban area of Rayleigh, this incorporates the medieval and post-medieval historic town of Rayleigh and the site of Rayleigh Mount, as well as considerable post World War II housing expansion.

109. Daws Heath/Belfairs ridge

This area is located within the urban expanse of the Essex coastal towns and its character is strongly influenced by the surrounding urban / sub-urban areas. The geology comprises Bagshot Formation sands, overlain to the south by head deposits and glaciofluvial sands and gravels. The landscape is dominated by much ancient woodland, mainly in conservation ownership. This area has largely escaped the trend of field boundary removal, containing no prairie fields and consisting of a patchwork of regular and irregular fields of ancient origin.

110. South Benfleet/Hadleigh urban area

Modern urban area of South Benfleet and Hadleigh, incorporates the historic settlements of South Benfleet, Hadleigh and Thundersley.

111. Hadleigh Downs

An area of steeply rising ground between the creek-side marshes and the urban spread of South Benfleet. The geology comprises London Clay in the southern half of the area and Bagshot formation sands in the northern half. The site of Hadleigh Castle forms a dominant feature in this landscape, both historically and visually. There is some settlement, mostly in the form of farmsteads, reflecting the historic pattern of sparse dispersed settlement. The area is divided between agriculture and leisure, with the golf course and country park to the west, and prairie fields to the north. There is some woodland, and several ponds. There are

extensive views across the Thames to the North Kent Coast and down river towards the sea. Post 1950s boundary loss is high.

112. Benfleet Creek

A varied landscape between South Benfleet, Leigh and Canvey comprising reclaimed land, grazing marsh, saltmarsh, and creeks with an intricate maze of marshy islands. The geology is comprised of tidal flat deposits. The area is used for recreation, with caravan sites, golf courses and country park and nature reserve. Historically the area was largely devoid of permanent settlement, as it is today. The reclaimed fields are generally bounded by drains and mostly regular, but some incorporate formers saltmarsh creeks. The boundaries are mostly of early post medieval origin, in places earthworks survive. The area has an open exposed feel, with broad view of the Thames estuary, Southend, Canvey Island and north Kent. Post 1950s boundary loss is low.

113. Canvey urban area

The modern urban area of Canvey Island, mostly post World War II. Built on reclaimed marsh.

114. Southend-on-Sea urban area

The modern urban area of Southend-on-Sea, incorporating the historic settlements of Prittlewell, Leigh-on-Sea, Westcliff-on-Sea, South and Shoeburyness

115. Great Wakering area

This area is located between Southend-on-Sea and the River Roach. The geology comprises a complex pattern of river terrace deposits and head deposits. There is a strong urban fringe character around the boundary of Southend. The historic settlement pattern was dispersed, with church/hall complexes, scattered farms and moats, with a single village at Great Wakering. To some extent this pattern survives, with much 20th century linear roadside development. Though the dominant field type is prairie, some areas of regular and irregular fields do survive. Historically this area was largely devoid of woodland and this is still the case.

116. Rochford urban area

The modern urban area of Rochford, this incorporates the medieval and post-medieval historic town of Rochford, as well as post World War II housing expansion.

117. West of Rochford, Canewdon area

The area is characterised by a gently undulating landform and arable fields north of the Roach estuary. The geology comprises London Clay in the northern half of the area, with successive layers of river terrace deposits in the southern half. This area has a strong grid structure of ancient origin, with north-south and east-west roads and tracks, many of which dogleg around fields. The historic settlement structure consists of small nucleations, moats and scattered farmsteads largely

survive, although to the north of the area roads have become a focus for settlement. Historically this area was largely devoid of woodland and this is still the case with only small blocks of woodland scattered across the area. In some places boundary loss has created large prairie fields although the strong historic grid structure has been maintained. In some areas Dengie-form co-axial field systems (named after the Dengie Peninsula where they cluster) still survive. These field-systems are very ancient, having their origin possibly in the Saxon period.

118. Wallasea Island

A flat landscape comprising all of Wallasea Island. The geology comprises tidal flat deposits. The area contains little settlement and few buildings. The field pattern is dominated by post 1950 drainage work which has destroyed all original field patterns. A project is now underway to allow incursion of tidal water which will recreate a creek system and marsh. There is a strong sense of openness and space with wide expansive views across the estuaries.

119. Foulness archipelago

The Foulness archipelago is located at the eastern end of Rochford district. The geology comprises tidal flat deposits. This series of islands largely comprises reclaimed grazing marshland of medieval /post medieval date. The area contains the small settlement of Church End on Foulness Island and a number of small farmsteads. Foulness is also the home of a military nuclear test centre and artillery range. The fields are regular and irregular in shape perhaps reflecting varying stages of development and reclamation. There is a strong sense of openness and space with wide expansive views, particularly to the east. Post 1950s boundary loss is high.

120. Woodham Mortimer and Purleigh ridge

This area comprises a ridge of slightly higher ground to the west of Maldon, with in some places extensive views out to the Blackwater Estuary. The geology comprises London Clay, with a capping of glaciofluvial sand and gravels and head deposits in the north and west of the area. Until the mid-19th century the area was characterised by a network of interconnecting commons and large areas of ancient woodland, some of the latter still survives. The field system in the south of this area is similar to that of the Canewdon area to the south of the Crouch, comprising a distinctive co-axial rectilinear field pattern (known as Dengie-form after this area). These are of considerable antiquity, and may have their origins in the middle Saxon period, if not before. To the north and west this field-type becomes interspersed by irregular fields of probable medieval origin. There is some later enclosure on the site of the former woodland and commons. Historically the settlement was dispersed, comprising church/hall complexes, isolated manors, and moated sites, the motte at Purleigh, and individual cottages and farms, often spaced out around the edges of the commons. Modern development takes the form of ribbon development along the roads. Post 1950s boundary loss can be described as moderate to high, although the overall grain of the ancient field pattern is still preserved.

121. Southminster ridge

The eastern slope of a ridge of slightly higher ground, with extensive views out across the marshes to the sea. The geology derives from a former course of the River Medway, comprising river terrace sands and gravels and head deposits. The field system is similar to that of the Canewdon area to the south of the Crouch, comprising a distinctive co-axial rectilinear field pattern (known as Dengie-form after this area). These are of considerable antiquity, and may have their origins in the middle Saxon period, if not before. Field boundaries were historically bordered by elm hedgerows, most of these were badly affected by Elm Disease, with the loss of the standard trees, the hedges now largely comprise elm scrub. The historic settlement is scattered along the ridge and comprises the town of Burnham-on-Crouch and the villages of Southminster, Asheldham, Tillingham and Bradwell-on-Sea. In addition there were isolated farms and cottages. The settlement was sited so as to maximise the economic potential of the landscape, comprising the easily-tilled dryland, as well as the extensive marshes and the mud-flats and open water (HLCA 81-5). The former Bradwell-on-Sea airfield, which is now the site of the Bradwell Nuclear Power-station is a dominant landscape and visual feature at the north-eastern corner of the peninsula. Post-1950s boundary loss can be described as slight to moderate, although this depends to an extent on the individual farm. However, even where there has been moderate boundary loss the overall grain of the ancient fields is still a tangible landscape feature. A Historic Town Assessment has been undertaken for Burnham-on-Crouch and Historic Settlement Assessments for Southminster, Tillingham and Bradwell-on-Sea.

122. Manningtree, Mistley and Lawford Urban Area

The modern urban area of Manningtree, Mistley and Lawford villages, this incorporates the medieval and post-medieval historic core of the port of Manningtree, and the 18th-century development of Mistley.

APPENDIX D: RESEARCH

INTRODUCTION

The Eastern Region Research Agenda and Strategy (Brown & Glazebrook 2000), was published at a time when Historic Landscape Characterisation (HLC) had started in the region. Suffolk was complete, Hertfordshire was in progress, and Essex was about to start. It had also been decided to apply the evolving methodology across the other counties in the region: Bedfordshire, Cambridge and Norfolk. To reflect the regional nature of the project, Lynn Dyson Bruce was appointed as the regional project co-ordinator, following Oscar Alred. HLC was recognised in the Research Agenda and fell within: Priority 4, to increase understanding of landscape; and Priority 6, to contribute to the management of the archaeological resource.

In 2005, a review of the Research Framework was carried out and the results were presented at a conference. HLC was one of the topics looked at. The conclusions of this paper (Dyson-Bruce & Went 2005, 9-10) outline the importance of HLC both nationally and within the regional context:

"The national HLC programme, sponsored by English Heritage, now shows us, for over half the country, with more coverage on the way, rich and diverse patterns of change and/or continuity, which underpin present landscape character. This is a major new tool for the management of our cultural heritage, complementing tried and tested approaches, such as statutory designation and development control, but going further than either in terms of understanding, portraying and ultimately managing the broad grain of the landscape in historic terms. Previous techniques are very effective at the localised scale, for example at the scale of the individual building or monument, but HLC engages with the wider landscape without being drawn unduly towards prioritised or selected highlights. In this respect HLC fits well with the 2000 European Landscape Convention, which firmly places chronological and anthropomorphic aspects at the heart of landscape definition, and therefore places archaeologists at the heart of future management debates involving the big picture. HLC, it is hoped, will equip the regions' archaeologists with a very suitable tool for work within the framework of the Convention, and also within the range of emerging landscape-scale initiatives such as Regional Spatial Strategies (the recent successor to Regional Planning Guidance), Strategic Environment Assessments (SEA) and Government sponsored indicator projects such as 'Countryside Quality Counts'.

There is still much work to do, but the East of England HLC is well on course for completion, only a few years' hence. It is already finding wide application in areas of research and management, and future applications will no doubt be even more diverse, hopefully drawing in greater public participation as well as more effective integration with HER data and other forms of landscape character assessment. The future is certainly promising, and this promise should be capable of much greater expression and expansion, in any future edition of the region's research agenda and strategy."

RESEARCH THEMES

A Revised Research Framework for the Eastern Region was published in 2008 (Medlycott & Brown 2008). It sets out the framework for various themes which cover areas of research to which HLC can contribute. The relevant historic landscape sections are set out below.

Saxon

There has been some progress in our understanding of the development and appearance of Anglo-Saxon landscape and settlement. Urban Archaeological Databases have been completed for Colchester, St Albans and Cambridge. Extensive Urban Surveys have compiled and assessed the evidence, including the Anglo-Saxon period, for many of the towns in the region (Cambridgeshire, Herts, Essex, Bedfordshire). The HLC projects provide an interpretation of field types, including some examples that may have their origins in the Mid-Late Saxon period (such as the rectilinear, co-axial fields prevalent in south-east Essex). The Historic Field Systems of East Anglia Project consisted of 12 detailed case studies of historical field systems across the region, analysing their evolution, forms and management. The project has identified regional divisions and sub-groups, with an exploration of their origins (Martin and Satchell 2008). This project has again shown the significance of the River Gipping corridor ('the Gipping Divide') as a major cultural and landscape boundary.

Medieval

The East of England falls within two landscape regions, comprising the Central Midlands province and the Eastern province of Roberts and Wrathmell (2000) or alternatively the 'planned' and 'ancient' countryside of Rackham (1986). There has been some progress in our understanding of the development of these landscapes. The HLC project provides an interpretation of the existing landscape in terms of its historic components, with a strong emphasis on the morphological classification of fields. Allied to this, the Historic Field Systems of East Anglia Project carried out 12 detailed case studies of historical field systems across the region, analysing their evolution, forms and management. This includes the identification of regional divisions and subgroups, with an exploration of their origins (Martin and Satchell 2008). The study has shown the complexity of field systems in Eastern England, with common fields of varying degrees of formality being prevalent in the north and west of the region, but with ancient 'block holdings' (or land in severalty) dominating in the south. The study has also highlighted the lack of 'high' ridge-and-furrow in most parts of the region, except those in the west. Instead 'low' ridge-and-furrow produced by stetch ploughing was the norm. The significance of the River Gipping corridor ('the Gipping Divide') as a major cultural and landscape boundary has also been further highlighted.

Post Medieval

There has been progress in our understanding of the development of the post-medieval and modern landscape. The HLC project provides an interpretation of field types within the region, focussing on the 1st edition OS map (1870s and 80s) and the modern day. Allied to this, the Historic Field Systems of East Anglia Project comprises 12 detailed case studies of historical field systems across the region, analysing their evolution, forms and management (Martin and Satchell 2008).

Over-arching Research Themes

- The development of the medieval and early post-medieval landscape, field-systems, woods etc. and the processes by which they contributed to the current landscape needs further study in order to build on the work of the Historic Field Systems in East Anglia Project. The post medieval drainage of the Fens is arguably the single largest feat of pre-industrial age engineering and reclamation in Britain. As yet almost no archaeological effort has been applied to recording and understanding the development of post-medieval Fenland drainage and enclosure and this should be addressed.
- The Eastern Counties region was at the centre of the developments associated with the Agricultural Revolution and Victorian High Farming. Thematic surveys of farm-types and agricultural industries, coupled with the HLC and the Historic Fields project provide a basis for further study.
- Greater effort should be made to integrate environmental (and other) information on historic landscape features such as ancient woodland, hedgerows, pasture, ponds and pools, etc. Such information is often compiled and held by environmental bodies such as English Nature. Although its historical veracity may sometimes be doubtful, inclusion of such sites in Historic Environment Records will encourage further information on them to be compiled, and their archaeological significance to be tested.

Future HLC Enhancement

- Classification of settlement types using the HLC type codes developed for Norfolk. This will include: differentiating historic from modern settlements; reclassifying farms and villages; adjusting the digitised extents of farms in particular to their true extent.
- Identifying former commons and heaths and adding them to the HLC in the Code_Prior field.
- Identiying historic routeways within the HLC. Navigable waterways are not identified at all. Railways are inconsistently identified. This will involve some re-digitising.

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