

# LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Jacks Field,  
Takeley

## PLANNING

Prepared on behalf of

**WESTON HOMES**

Ref: 2951-RE-07 -P3

Date: November 2022



**JACKS FIELD, TAKELEY**

**LANDSCAPE AND VISUAL IMPACT ASSESSMENT**

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Rev	Description	Date	By/Chk
*	DRAFT ISSUE	13/10/22	CR
P1	ISSUED FOR PLANNING	30/11/22	CR
P3	SCHEME PROPOSALS UPDATED IN LINE WITH OFFICER COMMENTS	13/02/23	CR





## **1. INTRODUCTION**

- 1.1. This Landscape and Visual Impact Assessment (LVIA) has been commissioned by Weston Homes and prepared by Landscape Architects, Allen Pyke Associates Ltd. It provides an assessment of the potential impact on both the landscape character and visual amenity of the proposed residential development on land at Jacks Field at Takeley in the Uttlesford District.
- 1.2. The proposals are for the *'Erection of 40no. dwellings, including open space, landscaping and associated infrastructure.'* A full description is set out within the supporting Planning Statement.
- 1.3. The Application Site formed part of an Application (Ref. No. UTT/21/1987/FUL) for the development of a wider site known as Warish Hall Farm. This was taken to committee on 15th December 2021 with the recommendation for approval. Despite Officers' recommendation it was refused at the committee meeting. Following the Decision made by the Planning Committee an Appeal against the Decision was submitted under Section 78 of the Town and Country Planning Act 1990 (as amended). The Appeal (Ref. APP/C1570/W/22/3291524) was dealt with via a Planning Inquiry, where it was dismissed by the Inspector. It should be noted that the Inspector's findings within the Appeal decision are referenced in relation to this application.
- 1.4. The submitted LVIA was critiqued in evidence presented at the Appeal. For ease of reference all receptor references within this LVIA have been kept as per the previous submission so as to allow for ease of reference to the Appeal decision and relevant Core Documents.
- 1.5. Warish Hall Farm (the wider site) also consists of Bull Field and Seven Acres which are referred to throughout the assessment and are labelled on Figure 7.1 for ease of reference. However, this application relates solely to Jacks Field as set out below.

### **Overview of Landscape & Visual Considerations**

- 1.6. The Site is comprised of 1 arable field currently supporting managed grassland.
- 1.7. It abuts the existing settlement edge of Little Canfield where it extends to Jacks Lane along the Site's southern boundary and a public right of way along the eastern. The land to the north and north west is characterised by the small scale rural landscape which forms the setting to Smiths Green Lane – protected Rural Lane. Detached residential properties (some of which are Listed) front onto the Lane and their large rear gardens back onto the Site along its western boundary.

1.8. The Site is contained within the Uttlesford Countryside Protection Zone (CPZ) which seeks to protect the openness of the landscape surrounding Stansted Airport (approximately 1km to the north) in order to prevent coalescence with the airport. The vegetation along the Site's boundaries is well established and provides a strong sense of enclosure whilst limiting visual connections from the adjacent receptors. Beyond this there are no landscape features within the Site which are sensitive or unique in published landscape assessments.

1.9. Paragraph 22 of the Inspector's Appeal decision for the wider submission reads as follows in relation to anticipated effects.

*'The development would be built on the edge of the village, extending the built form into the open countryside. Whilst in overall terms the proposal would have little effect on the wider LCA, in local terms the appeal site is part of an open, tranquil environment, notwithstanding the proximity of the airport and the A120, within which the Prior's Wood ancient woodland is experienced. For that reason, it has community value being an "everyday" landscape that is appreciated by the local community. Nevertheless, I agree with the appellant that in terms of that part of the appeal site which comprises 7 Acres and Jacks, it is enclosed by mature boundary planting and existing development. This sense of enclosure means that these areas of the appeal site are largely separate from the wider landscape and the LVIA identified visual receptors. Accordingly, I consider the proposal would have minimal effect in terms of landscape character and visual impact in respect of these areas'.*

1.10. The proposals seek to replace the arable field with a new residential development which would form a logical extension to the adjacent land use. The only residual adverse effects will be the loss of arable land and the associated change in (mostly filtered) views for receptors overlooking the Site along its boundaries. The landscape proposals have considered the adjoining and overlooking receptors and present a balance of new built form and green infrastructure to avoid any significant residual undue adverse effects on landscape and visual receptors. Neither the Council nor the Inspector raised issue with the proposed development of Jacks Field\ as previously set out and which now forms this separate submission.

### **February 2023 Update**

1.11. This document has been updated to include the amended Scheme Proposals which respond to comments made by the Urban Design Officer in January 2023. The revised layout focusses the

internal public open space to the north of the Site, reduces any rear gardens along this frontage and increases the opportunities for native planting to reinforce the Site's northern boundary and sense of enclosure along the Public Footpath PROW 48\_25. Walkers using footpath may have glimpses into the Site during winter months but they will be of the public open space and a positive frontage set behind native planting. This will bring positive elements into their transient views as they pass the Site and reduce the residual effects on this receptor (VR6). Paragraph 5.23 and Table 4 have been updated accordingly.

## 2. METHODOLOGY

- 2.1. The report applies a methodology developed by Allen Pyke Associates based on best practice as set out in the Guidelines for Landscape and Visual Impact Assessment; Third Edition, 2013 (GLVIA3) published by the Landscape Institute and IEMA. (See Appendix A)
- 2.2. GLVIA3 states that the role of a Landscape and Visual Impact Assessment (LVIA) is to *"consider the effects of development on the landscape as a resource in its own right and the effects on views and visual amenity"*. It refers to 'landscape', as adopted by the Council of Europe in the European Landscape Convention 2002, as being *"an area, as perceived by people, whose character is the result of the action and interaction of natural and /or human factors."* The application of the Convention is inclusive referring to natural, rural, urban and peri-urban areas, including land, inland water and marine areas and it goes on to state that it *"concerns landscapes that might be considered outstanding as well as every day or degraded landscapes"*.
- 2.3. The GLVIA3 requires that professional judgements are *"reasonable and based on clear and transparent methods"* and that *"in carrying out an LVIA the landscape professional must always take an independent stance, and fully and transparently address both the negative and positive effects of a scheme in a way that is accessible and reliable for all parties concerned"*. A key element of the LVIA process is the assessment of Landscape Character for non-designated landscapes. Allen Pyke Associates' Methodology has been updated to consider the Landscape Institute's Technical Guidance Note TGN 21/02 which was published in May 2021. A definition of each of the terms used throughout this report is found in Appendix A.
- 2.4. The assessment is undertaken in two parts; first the baseline study (Section 3.0 below), whereby a combination of desk-based research and site visit (February 2021) are used to assess the existing site conditions and consider the landscape elements (landform, vegetation, historic features,

adjacent development, relevant planning policies and key views) that make up the Site and its surrounding context. This information contributes to an assessment of the susceptibility and sensitivity of landscape character and visual amenity. Visual amenity considers existing views into and out of the site from a variety of public viewpoints and, where relevant, from residential properties. It should be noted, however, that access to private properties is not usually possible so an assessment based on the nearest accessible viewpoint is used. This process assists in identifying the visual envelope around the proposed development and locations from which the site is visible (Visual Receptors).

- 2.5. The second part (Sections 4.0 and 5.0), describes the scheme and provides an assessment of the potential effects of the proposals, including the built form, associated infrastructure, planting and mitigation treatments, on the sensitivity of the landscape and visual amenity established in the baseline survey. The results have been used to assess the potential magnitude of change that might be brought about by the proposed development and the significance of any temporary or residual effects.
- 2.6. The Methodology was critiqued as part of the Warish Hall Farm Site Appeal. We remain confident in our methodology which has been tried and tested at previous appeals and is in accordance with Landscape Institute Guidelines, for which Allen Pyke are a registered practice. We have, however, considered and referred to the findings of the Inspector and other professionals where relevant to our conclusions.

### **3. ASSESSMENT OF BASELINE CONSIDERATIONS**

#### **The Site and Surrounding Context**

- 3.1. The Site is approximately 2.1ha in area. It is comprised of a single arable field. An Ecology Update and Walkover Survey (Ecology Solutions Ltd, September 2022) defines the current land use as follows:

*‘The Jack’s Field parcel consists of a single arable field supporting homogeneous, managed grassland which appears to have been cut during the 2022 harvest season. The sward was approximately 10 cm in height. This habitat is of negligible ecological interest. During the initial habitat survey completed in October 2020, Jack’s Field had been left fallow and comprised a range of recolonising species. During the walkover survey completed in April 2021, the field was found to have been ploughed.’*

- 3.2. The field is bound along its eastern and southern boundaries by the settlement edge of Little Canfield. The land to the north and north west extends across the small scale landscape associated with Smiths Green towards the A120 corridor and Stansted Airport further towards the north west.
- 3.3. The A120 forms an east-west route linking the M11 and Stansted Airport with the A12, Colchester and Harwich. It is predominantly at grade or in minor cutting as it passes the Site approximately 200m to the north. Local roads (including Parsonage Road and Smiths Green Lane/ Warish Hall Road) pass over the A120 via road bridges which are notable in the landscape.
- 3.4. Notable land uses / features in the vicinity of the Site include:
- Little Canfield local centre with Tesco, Takeley School and a Community Centre lies approx 150m to the south east of the Site;
  - Smiths Green Lane is a protected rural lane which lies immediately to the west of the Site;
  - Prior's Wood is an area of Ancient Semi-Natural Woodland within the small scale arable landscape adjacent to Smiths Green and lies 150m to the west;
  - Warish Hall Farm contains a range of employment uses and is located 300m to the northeast;
  - Stansted Airport lies approximately 1.5km to the north-west; and,
  - Hatfield Forest is a National Trust site located approximately 1.5km to the south-west.

#### **Topography and drainage**

- 3.5. The field is relatively flat at approximately 102m AOD (Above Ordnance Datum). The land drops very gently from 103m AOD along the western boundary to approximately 102m AOD along the eastern. The southern boundary contains an overgrown ditch.

#### **Vegetation and Boundaries**

- 3.6. The site boundaries are well vegetated with localised small areas of woodland forming the immediate setting to the north and south.
- 3.7. A tree survey was carried out by Barton Hyett Associates in January 2021 and updated in October 2022, following a site walkover, and confirms the following:

*'At the Jacks site, predominantly wych elm, hawthorn and blackthorn group G4 (B2) forms an off-site belt of trees following the byway along the east site boundary. Oaks T2 and T3 are particularly*

*prominent trees of quality category A1. T3 grows in an adjoining garden. Woodland G5 (B2) grows beyond a ditch in the south corner the site.'*

- 3.8. The Ecology Update and Walkover describes the site boundary vegetation as follows:

*'A mature species rich hedgerow bounds the east of the site and is comprised of the species Field Maple Acer campestre, Elm Ulmus sp., Blackthorn Prunus spinosa, Hawthorn Crataegus monogyna, Goat Willow Salix caprea, Ash Fraxinus excelsior, Hazel Corylus avellana, Crab Apple Malus sylvestris, Holly Ilex aquifolium, Dogwood Cornus sanguinea and Honeysuckle Lonicera periclymenum.*

*A mature species rich hedgerow bounds the south of the site along Jack's Lane and is comprised of the species Field Maple, Ash, Hawthorn, Blackthorn, Elm, Hazel, Dogwood, Dog Rose Rosa canina and Ivy Hedera helix. A mature Oak Quercus robur is present in this hedgerow towards the south-eastern corner of the site. This tree was assessed to not support any features suitable for roosting bats.*

*A mature hedgerow bounds the north-west of the site along Smiths Green and is comprised of the species Field Maple, Blackthorn, Elder, Hawthorn, Dogwood, Elm and Honeysuckle. A mature Oak is present within this hedgerow on the north-west corner of the site. This tree was assessed to not support any features suitable for roosting bats'.*

#### **Historic Landscape / Townscape Features**

- 3.9. A Built Heritage Assessment (BHA) was carried out in September 2022 by RPS The Site. There are various Listed Buildings fronting onto Smiths Green (as indicated on Figure 7.1). The nearest is Hollow Elm Cottage who's rear garden backs onto the adjoining woodland south of the Site. According to the BHA:

*'There are a number of designated heritage assets within the vicinity of the (wider) Site. The Grade I listed Warish Hall and Moat Bridge (NHLE: 1169063) is to the north and sits within the scheduled monument known as Warish Hall moated site and remains of Takeley Priory (NHLE:1007834). There is a collection of Grade II and one Grade II\* (Moat Cottage NHLE:1112211) listed buildings to the south of the Site within the hamlet of Smiths Green. Additional built heritage assets sit beyond the boundary of Smiths Green but within 1500m of the Site, these include the Grade I listed Church of the Holy Trinity (NHLE:1168843).'*

3.10. With regards to the setting of Hollow Elm Cottage the BHA concludes the following:

*‘Although the Jacks land parcel is in proximity to the cottage to the east it is less appreciable. The dense boundary hedgerows of Jacks field as well as the spinney behind Hollow Elm Cottage mean that this part of the Site is not visible from the listed building and, in fact, is only visible in glimpsed views from Jacks lane and Smiths Green road. As such it makes a moderate contribution to the significance of the listed building.’*

3.11. Similar conclusions are reached for Cheerups Cottage and the Pump at Pippins. All other contributions made to heritage assets are minor.

3.12. The BHA concludes that *‘the Proposed Development of the (wider) Site may impact on the significance of the relevant heritage assets. Any potential impacts may be mitigated through design, including the use of landscape buffers, location, density and orientation of development as well as the retention of historic field boundaries and hedgerows.’*

3.13. The sensitivity of receptors currently affording views towards, and from, the Listed Buildings are considered as part of the Visual Assessment.

3.14. Figure 7.1, at Appendix A, provides an aerial photograph identifying the site features discussed above.

3.15. Photographs of the site vegetation and boundaries are provided below:



Dense hedge along southern boundary at Jacks Lane



Dense tree belt along northern boundary adjacent to PROW





*View into Site from field access at Smiths Green Lane*



*Western boundary vegetation along Smiths Green Lane.*

### 3.16. Policy Context and Designations

3.17. The objectives of the National Planning Policy Framework and adopted Local Plan are considered below.

#### **National Policies**

3.18. The National Planning Policy Framework (NPPF) gives details of the national planning policy context and was revised in July 2021. It sets out the government's planning policies for England and how these should be applied. This revised Framework replaces the previous NPPF published in 2012 and updated in June 2019. The document provides the framework within which locally prepared plans for housing and other development can be produced.

3.19. The following sections are relevant to this LVA:

- Section 2 highlights that plans and decisions should apply a presumption in favour of sustainable development.
- Section 8 recognises that access to a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities. It also states that Planning policies and decisions should protect and enhance public rights of way and access.
- Section 12 focusses on achieving well designed spaces which are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change. It also stipulates that applicants should work proactively and closely with those affected by their proposals to evolve designs which take account of the local community.



- Section 15 highlights the need to conserve and enhance the natural environment, particularly paragraphs 174 to 177, stipulating that development within their setting of areas with particular designations should be sensitively located and designed to avoid or minimise any adverse impacts.

### Local Policies

3.20. Uttlesford Local Plan, adopted January 2005, contains the following key policies relevant to this LVIA:

- **Policy GEN2 – Design:** Development will not be permitted unless its design meets all the following criteria and has regard to adopted Supplementary Design Guidance and Supplementary Planning Documents.
  - a) It is compatible with the scale, form, layout, appearance and materials of surrounding buildings;
  - b) It safeguards important environmental features in its setting, enabling their retention and helping to reduce the visual impact of new buildings or structures where appropriate;
  - c) It provides an environment, which meets the reasonable needs of all potential users.
  - d) It helps to reduce the potential for crime;
  - e) It helps to minimise water and energy consumption;
  - f) It has regard to guidance on layout and design adopted as supplementary planning guidance to the development plan.
  - g) It helps to reduce waste production and encourages recycling and reuse.
  - h) It minimises the environmental impact on neighbouring properties by appropriate mitigating measures.
  - i) It would not have a materially adverse effect on the reasonable occupation and enjoyment of a residential or other sensitive property, as a result of loss of privacy, loss of daylight, overbearing impact or overshadowing.
- **Policy ENV3- Open Spaces and Trees:** The loss of traditional open spaces, other visually important spaces, groups of trees and fine individual tree specimens through development proposals will not be permitted unless the need for the development outweighs their amenity value.
- **Policy ENV8 - Other Landscape Elements of Importance for Nature Conservation:** Development that may adversely affect these landscape elements including Hedgerows,

Linear tree belts, Larger semi natural or ancient woodlands, Semi-natural grasslands, Green lanes and special verges Orchards, Plantations, Ponds, reservoirs, River corridors, Linear wetland features, Networks or patterns of other locally important habitats.

- **Policy ENV 9 – Historic Landscapes**

Development proposals likely to harm significant local historic landscapes, historic parks and gardens and protected lanes as defined on the proposals map will not be permitted unless the need for the development outweighs the historic significance of the site.

- **Policy S7 – The Countryside:**

This policy defines the countryside as those areas beyond the Greenbelt, which do not fall within the settlement or other site boundaries. Policy S7 sets out that development in the countryside will only be permitted where it needs to take place or is appropriate to a rural area.

- **Policy S8 - The Countryside Protection Zone:**

The area and boundaries of the Countryside Protection Zone around Stansted Airport are defined on the Proposals Map. In the Countryside Protection Zone planning permission will only be granted for development that is required to be there, or is appropriate to a rural area. There will be strict control on new development. In particular development will not be permitted if either of the following apply: a) New buildings or uses would promote coalescence between the airport and existing development in the surrounding countryside; b) It would adversely affect the open characteristics of the zone.'

3.21. **Emerging Local Policy**

3.22. The new Local Plan is currently still in preparation. Some baseline evidence documents which informed preparation of the now withdrawn Submission Local Plan 2019 has been considered where relevant to the Site and the proposals.

3.23. The following documents / evidence base material have been considered relevant to this LVIA:

**Uttlesford Countryside Protection Zone Study 2016** (LUC on behalf of Uttlesford District Council, June 2016)

3.24. The overall aim of the study was to assess the extent to which the land within the CPZ is meeting its purposes, as set out in Policy S8 of the Uttlesford Local Plan (2005). This will enable the Council to make informed decisions, should it decide to amend the CPZ through the Local Plan.

- 3.25. The main objectives and requirements of the CPZ are *'to maintain a local belt of open countryside around the airport which will not be eroded by coalescing development, as stated in*
- 3.26. The Site is contained within the south western corner of Parcel 5 of the CPZ.
- 3.27. At the Inquiry it was confirmed that this document is due to be reviewed and updated by the Council in order to reflect the changes which have occurred as a result of permitted development within the 6 years since its publication and to update a number of errors contained within it.

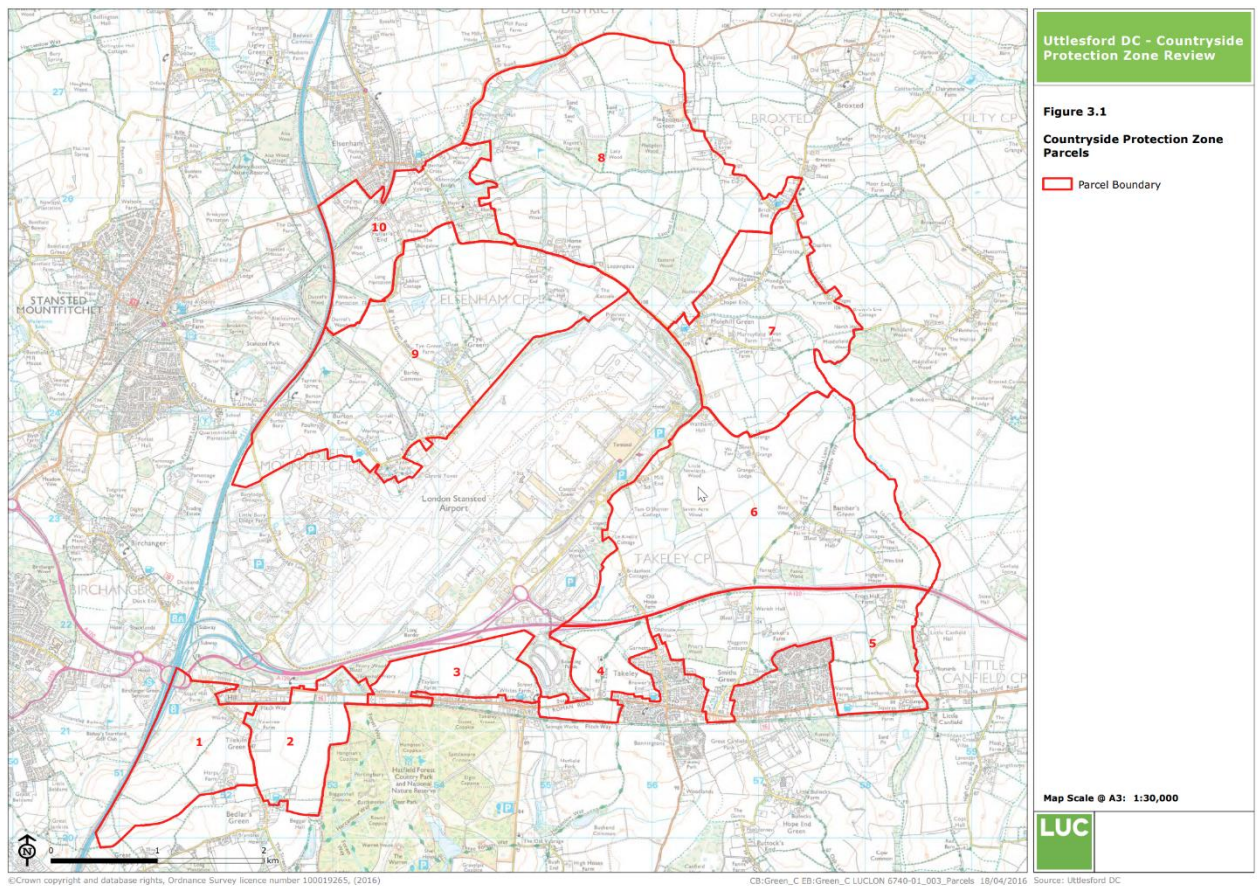


Figure 3.2 of the CPZ Study

- 3.28. The Study provides the following summary of Parcel 5's contribution to the CPZ:
- 3.29. To protect the open characteristics of the CPZ: Medium. *'The parcel contains limited development and has a relatively strong sense of openness. Land use within the parcel includes large arable fields, small wooded areas and the hamlet of Smith Green and some isolated farms (Frogs Hall Farm/Parker's Farm/Warren Farm) Recent residential development on the edge of Little Canfield has encroached on open land on the southern boundary of the parcel. The A120 runs along the northern boundary'.*

- 3.30. To restrict the spread of development from the airport: Medium *'The A120 is a strong durable barrier features which has the potential to prevent the outward spread of development from the airport to the countryside. This major road reduces the potential role of the parcel in performing this purpose. Conversely, the downgrading of the Dunmow Road following the construction of the new A120 has provided opportunities for development to occur. The CPZ therefore plays a strong role in preventing further development within Takeley Street.'*
- 3.31. To protect the rural character of the countryside (including settlement) around the airport: Medium. *'The parcel contains the characteristics of the countryside and urbanising influences are limited, particularly to the east, with gently undulating farmland with large arable fields and woodland blocks including the ancient woodland at Prior's Wood. The parcel is characterised by peaceful winding sunken lanes running north- south (Smiths Green/Takeley to Bambers Green) which give access to historic farmsteads and moated halls (Warish Hall/Frogs Hall). The wooded edge of the River Roding defines the eastern boundary. The A120 to the north affect the tranquillity of the parcel but is less intrusive due to its position in a cutting. Residential development on the northern edge of Little Canfield and Takeley has little link to local vernacular style and brings a suburban element to the southern boundary of the parcel. Commercial development on the northern edge of Takeley (Stansted Centre Industrial Estate) compromises the rural character of the parcel.'*
- 3.32. To prevent changes to the rural settlement pattern of the area by restricting coalescence: High *'The parcel plays an essential role in preventing the merging of the narrow gap between the villages of Takeley and Little Canford, and protecting the rural settlement pattern of Smith's Green'.*

**New Settlement Proposals: Landscape and Visual Impact** (Uttlesford District Council, May 2017)

- 3.33. The Paper looked at the significance and the effects of change resulting from the development of new settlements on the landscape and on public views and visual amenity. This report was not based on any site-specific Landscape and Visual Impact Assessment (LVIA), or part of an Environmental Impact Assessment (EIA), undertaken by UDC. One of the sites considered was the Land at Priors Green at Takeley which lies immediately east of the Application Site. The Prior's Green Site was described as '85.2ha (Developable Area 58.1ha) Total number of housing units proposed 1,700. Employment land proposed 0.6ha. 1no. Primary School. Local Centre 0.4ha'.

- 3.34. Overall, the landscape character area was considered to have a moderate to high sensitivity to change and the Council's assessment concluded that:

*'Whilst the proposed development would undoubtedly result in a significant change to the visual character of the site itself, it is considered the visual impact of the development on the surrounding landscape would be limited with the implementation of appropriate landscape mitigation measures. The relatively flat nature of the site combined with the visual containment provided by Priors Wood to the north east of the site, and the physical containment of the northern extent of the proposed development provided by the A120, reduces the potential impact of the proposed development on the wider landscape'.*

- 3.35. Whilst the Site was not included in this assessment, the findings with regards to the visual containment provided by Prior's Wood and the physical containment provide by the A120 are relevant to this LVIA.

#### **National Landscape Designations**

- 3.36. The Site is not subject to any statutory landscape designation for scenic quality or beauty. The nearest National Nature Reserve (Hatfield Forest) lies 1.5km to the south west.

#### **Regional Landscape Designations**

- 3.37. The site is not subject to any landscape or environmental designations.

#### **Designated Public Rights of Way**

- 3.38. PROW 48\_25 is a restricted by-way which runs along the northern boundary of Jack's Field. It connects Smith's Green to Little Canfield. Other notable Rights of Way within the vicinity of the Site include the following:

- PROW 48\_40 is a footpath which runs adjacent to the Seven Acre parcel southern boundary connecting from Parsonage Road to Smiths Green.
- PROW 48\_41 is a footpath which runs across Bull Field from the cul de sac at Ley Field to the field boundary adjacent to Bull Cottages before connecting with Smith's Green south of Jack's Lane.

- PROW 48\_21 runs adjacent to the A10. It forms part of the Harcamlow Way – a National Trail connecting from Hatfield Forest Country Park (km to the south west of the Site) to Bamber’s Green approximately 1.5km to the north east.
- There are a range of other public rights of way connecting between the built-up areas but few have views towards the Site and are not considered relevant to this assessment.

### **Existing Landscape Character**

3.39. The following section reviews published landscape and townscape character assessments of the site and its surroundings.

#### **National Level**

3.40. At a national level Natural England has produced a National Character Areas Plan which divides England into 159 distinct natural areas. The Site is located in Character Area 86. South Suffolk and North Essex Clayland.

3.41. Key characteristics, as defined in the National Character Area Profile Sheet (included at Appendix D), are:

- *‘An undulating chalky boulder clay plateau is dissected by numerous river valleys, giving a topography of gentle slopes in the lower, wider valleys and steeper slopes in the narrower upper parts.*
- *Fragments of chalk give many of the soils a calcareous character, which also influences the character of the semi-natural vegetation cover.*
- *South-east-flowing streams and rivers drain the clay plateau. Watercourses wind slowly across flood plains, supporting wet, fen-type habitats; grazing marsh; and blocks of cricket-bat willows, poplars and old willow pollards. Navigation locks are present on some rivers.*
- *Lowland wood pasture and ancient woodlands support the dormouse and a rich diversity of flowering plants on the clay plateau. Large, often ancient hedgerows link woods and copses, forming wooded skylines.*
- *The agricultural landscape is predominantly arable with a wooded appearance. There is some pasture on the valley floors. Field patterns are irregular despite rationalization, with much ancient countryside surviving. Field margins support corn bunting, cornflower and brown hare.*



- *Roman sites, medieval monasteries and castles and ancient woodlands contribute to a rich archaeology. Impressive churches, large barns, substantial country house estates and Second World War airfields dot the landscape, forming historical resources.*
- *There is a dispersed settlement pattern of scattered farmsteads, parishes and small settlements around 'tyes' (commons) or strip greens and isolated hamlets. The NCA features a concentration of isolated moated farmsteads and numerous well-preserved medieval towns and large villages.*
- *Traditional timber-frame, often elaborate buildings with exposed timbers, colour-washed render, pargeting and steeply pitched roofs with peg tiles or long straw thatch. Sometimes they have been refronted with Georgian red brick or Victorian cream-coloured bricks ('Suffolk whites'). Clay lump is often used in cottages and farm buildings.*
- *Winding, narrow and sometimes sunken lanes are bounded by deep ditches, wide verges and strong hedgerows. Transport infrastructure includes the A14, A12, M11 and Stansted Airport.*
- *A strong network of public rights of way provides access to the area's archetypal lowland English countryside'.*

3.42. Allen Pyke's Assessment of the sensitivity of the South Suffolk and North Essex Clayland is as follows:

- Landscape Character: Moderate. the area has a recognisable pattern, with some incongruous elements that detract from/only make a moderate contribution to the intactness of the area and provide some sense of place.
- Landscape Condition: Moderate. The area is reasonably managed and in average repair and quality.
- Landscape Susceptibility to Change: Medium. Where the components and qualities of an area /view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Landscape Value: Moderate. An undistinguished and undesignated area with some redeeming feature/features and possibly identified for or being improved.
- **Landscape Sensitivity: Moderate**

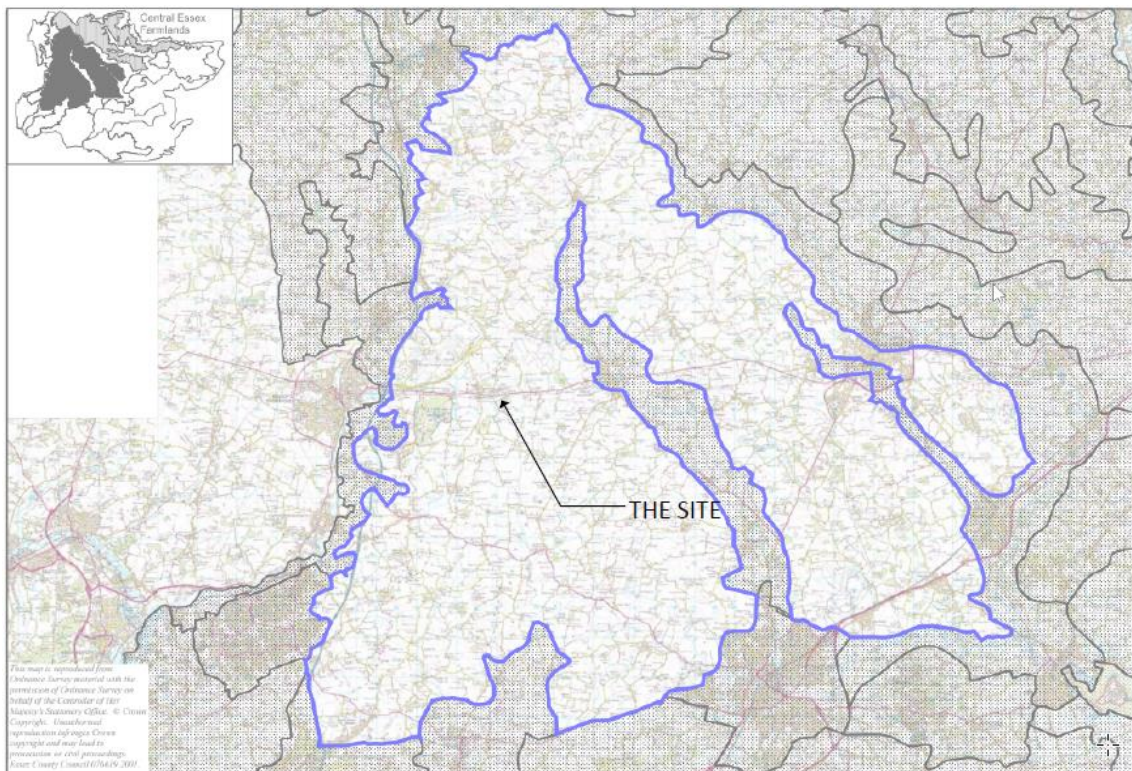


Extract from Natural England Landscape Character Assessment showing Site Location

**Regional Level**

3.43. At the Regional level Essex County Council and Southend on Sea Borough Council have published the Essex Landscape Character Assessment (Chris Blandford Associates, 2003). The Site lies within an area identified as Central Essex Farmlands (B1) (RCA).





*Extract from Essex Landscape Character Assessment showing Site Location within the Central Essex Farmlands*

3.44. The key characteristics of this RCA (as defined in the 2003 Landscape Character Assessment and included at Appendix D) are:

- *‘Irregular field pattern of mainly medium sized arable fields, marked by sinuous hedgerows and ditches.*
- *Many small woods and copses provide structure and edges in the landscape.*
- *Scattered settlement pattern, with frequent small hamlets, typically with greens and ponds.*
- *A concentration of isolated moated farmsteads.*
- *Network of narrow, winding lanes.*
- *Mostly tranquil character away from major roads and Stansted Airport.’*

3.45. Allen Pyke’s Assessment of the sensitivity of the Central Essex Farmlands is as follows:

- Landscape Character: Moderate. the area has a recognisable pattern, with some incongruous elements that detract from/only make a moderate contribution to the intactness of the area and provide some sense of place.
- Landscape Condition: Moderate. The area is reasonably managed and in average repair and quality.
- Landscape Susceptibility to Change: Medium. Where the components and qualities of an area /view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Landscape Value: Moderate. An undistinguished and undesignated area with some redeeming feature/features and possibly identified for or being improved.
- **Landscape Sensitivity: Moderate**

**Local level**

3.46. At a Local level Uttlesford District Council has published the Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments (LCA) (Chris Blandford Associates, September 2006). The Site falls within B10 Broxted Farmland Plateau. The key characteristics of this Local Character Area (as defined by the 2006 Assessment, included at Appendix D for reference) relevant to the Site are as follows:

- *‘Gently undulating farmland on glacial till plateau, dissected by River Roding.*
- *Large open landscape with tree cover appearing as blocks on the horizon or as scattered trees along field boundaries, with intermittent hedgerows.*
- *Higher ground where plateau broadens and flattens is expansive and full of big sky views.*
- *Dispersed settlements and few villages of any size.*
- *Some sunken lanes.*
- *Moats, halls and historic farmsteads scattered over the area’.*

3.47. The published Character Assessment states the following with regards to sensitivities to change:

*‘Sensitive key characteristics and landscape elements within this character area include blocks of mixed deciduous woodland (visible on the horizon) and scattered trees within field boundaries (which are sensitive to changes in land management). The open nature of the skyline of higher areas of plateau is visually sensitive, with new development potentially visible within expansive views across the plateau. Sunken, often tree-lined lanes are also sensitive to new development or increases in traffic flow associated with such development. There is a sense of historic integrity, resulting from a dispersed historic settlement pattern and several visible moats and halls (the pattern of which is sensitive to change or new development). There are also several important wildlife habitats within the area (including 14 sites of importance for nature conservation, comprising ancient woodland, grassland and wetland habitats) which are sensitive to changes in land management. Overall, this character area has moderate to- high sensitivity to change’.*

3.48. Allen Pyke’s Assessment of the sensitivity of the Broxted Farmland Plateau is as follows:

- Landscape Character: Moderate. the area has a recognisable pattern, with some incongruous elements that detract from/only make a moderate contribution to the intactness of the area and provide some sense of place.
- Landscape Condition: Moderate. The area is reasonably managed and in average repair and quality.
- Landscape Susceptibility to Change: Medium. Where the components and qualities of an area /view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.

- Landscape Value: Moderate to High. An undistinguished and undesignated area with some redeeming feature/features and possibly identified for or being improved.
- **Landscape Sensitivity: Moderate to High**

**The Site**

3.49. The Site has no rare or unique landscape features and a moderate pattern of elements. The mature boundary vegetation and adjacent woodland areas provide a sense of enclosure to all boundaries. It has limited detractors but there is no notable sense of tranquillity or remoteness. The land is intensively farmed and is in a moderate condition. It is not designated but has some local value attached to it due to contribution (albeit it low) it makes to the setting of the Listed Buildings at Smiths Green. It is assessed as having a moderate sensitivity to the proposed change.

3.50. The following table provides a summary of Allen Pyke’s Assessment of landscape sensitivity from a National to Local Scale.

Name	Character	Condition	Susceptibility to change	Value	Sensitivity
NCA 86. South Suffolk and North Essex Clayland	Moderate	Moderate	Medium	Moderate	Moderate
Central Essex Farmlands	Moderate	Moderate	Medium	Moderate	Moderate
Broxted Farmland Plateau	Moderate	Moderate	Medium	Moderate	Moderate
The Site	Moderate	Moderate	Medium	Moderate	Moderate

**Table 1: Summary table of Landscape Character Area Sensitivity**

**Visual Assessment**

3.51. A site visit in February 2021, with a follow up in May 2021, was used to assess the existing visibility of the Site from a number of public vantage points including roads and PRow. Visibility from local properties was also assessed. The study was used to establish the Zone of Visual Influence (ZVI) (See Appendix B Figure 7.2). The ZVI is the area from which the Site and future proposals might be seen and is determined by the landform, topographical features such as surrounding buildings and vegetation (whose screening capacity may change through the seasons) and the scale and height of the proposed development. All features within the red line boundary are considered in establishing the ZVI. Receptor and view references have been retained as per the original submission.

- 3.52. It is important to note that, while the assessment was undertaken during midwinter, the visibility of the Site may decrease in summer when deciduous foliage on trees and hedgerows comes into full leaf.
- 3.53. The methodology has been applied to assess the 'Type of Receptor' and the 'Nature of View' and 'Value of View' for each Visual Receptor (VR). The 'Type of Receptor' and 'Nature of View' determines the 'Susceptibility to Change' while the 'Value of View' and 'Susceptibility of Change' determines the 'Sensitivity' of each Visual Receptor. This is summarised in Table 2 below. (The definitions used can be found in Appendix A).
- 3.54. As set out above in paragraph 3.35, the landscape is not statutorily designated, however, the value of the views has been considered to be 'moderate' where visual receptors currently enjoy views towards Listed Buildings, Smiths Green or Prior's Wood which are considered positive and valued landscape features in views from the settlement edge.
- 3.55. **VR1 – Visitors to Weston Homes and Skyway House** have no views of the Site. View 1 demonstrates that detractors in the view include the security fencing to the Site's boundary and glimpsed views towards the garage blocks which back onto the Site and form the Takeley settlement edge at North Road. Glimpses of the Bulls Field East land parcel are possible however the Jack's Field, beyond Smith's Green, is not visible.
- Receptor Type: B: People at their place of work whose attention may be focussed on their work or activity, not on their surroundings;
  - Nature of view: Poor. There are no views of the Site.
  - Susceptibility: Low. The components and qualities of the view could be affected and would have a high ability/capacity to accommodate the proposed change.
  - Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
  - Sensitivity of VR1 to the proposed change: Low
- 3.56. **VR2 – Residents at North Road** have no views of the Site. View 2 is taken from the public footpath at a gap in the boundary vegetation immediately adjacent to the 7 Acres boundary. View 1 and 3a towards North Road demonstrate the visibility of 7 Acres from the upper floor windows. Positive elements in the view include Prior's Wood. Detractors include the open settlement edge formed by the employment use east of Parsonage Road. Jacks Field is not visible.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. There are no views of the Site.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR2 to the proposed change: Moderate

3.57. **VR3 – Walkers on PROW 48\_40** have views of the Site’s western boundary vegetation where it abuts Smith’s Green. These views are transient as approaching Smith’s Green from the west. Positive elements in the view include the Listed Buildings fronting onto Smith’s Green. View 4 is representative of these views.

- Receptor Type: A: Walkers using a Public Right of Way;
- Nature of view: Moderate. There are partial views to the Site.
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR3: High

3.58. **VR4 – Residents east of Smith’s Green** may have glimpsed views from their upper floor windows through the spinney / woodland which forms the Site’s southern boundary. Maggotts Cottages will have more open views as they directly overlook the Site. View 5a is taken at a gap in the vegetation along the Site’s western boundary. Views 5, 6, 7 and 9 show the varying setbacks and boundary treatments and the extent to which the Site is visible. Although the extent to which the Site is visible varies for each property they are all assessed as having a high sensitivity.

- Receptor Type: A: Residents at home;
- Nature of view: Moderate to Poor. Varies depending on plot boundary treatments and proximity to Smith’s Green
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR4: High

3.59. **VR5 – Walkers on PROW 48\_41** have partial to glimpsed views towards the Site’s western boundary vegetation as they approach Smith’s Green. The settlement edge of Takeley and Priors



Wood obstruct views to the majority of the Site. Positive elements in the view include the Listed Buildings fronting onto Smith's Green. View 8a is representative of the views as travelling towards the Site.

- Receptor Type: A: Walkers using a Public Right of Way;
- Nature of view: Moderate. There are partial / glimpsed views of the site
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR5: High

3.60. **VR6 – Walkers on PROW 48\_25** have glimpsed transient views into the Site when moving along the bridleway in both directions. View 10 shows how the vegetation which forms the Site's northern boundary and setting to the PROW filters and, in some cases, fully screens views into the Site.

- Receptor Type: A: Walkers using a Public Right of Way;
- Nature of view: Moderate. There are partial / glimpsed views of the site
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Low. A view which contains some positive attributes but is not rare and does not have any local value attached to it.
- Sensitivity of VR6: Moderate

3.61. **VR7 – Residents at Jacks Lane** and Oak Lodge have views of the woodland which forms the Site's southern and eastern boundaries adjacent Jack's Lane and PROW 48\_25 respectively. View 11 is taken from adjacent to Oak Lodge and View 12 from Jacks Lane. Both views demonstrate how the woodland obstructs views into the arable field.

- Receptor Type: A: Residents at home;
- Nature of view: Moderate. There are partial / glimpsed views of the site
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Low. A view which contains some positive attributes but is not rare and does not have any local value attached to it.
- Sensitivity of VR7: Moderate

3.62. **VR8 –Walkers and Motorists at Smith's Green (S)**. Views 13, 14 and 15 are representative of the views from walkers and motorists approaching Smith's Green from the South. This section of the

protected lane has a high scenic value with wide meadows forming the lane's immediate setting and Listed Buildings fronting onto the meadow. Prior's Wood is visible on the skyline with the Bull Field visible in the foreground. There are no views of the Site due to the intervening built form and vegetation.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. The view to the site is obscured by intervening features.
- Susceptibility: Medium. The components and qualities of the view could be easily affected and would have a moderate ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR8: Moderate

3.63. **VR9 – Residents West of Smith's Green.** No's 1 and 2 Bull Cottages, Crown Cottage, The Cottage and Goar Lodge have views into the Bull Field land parcel where they abut the arable land. Vegetation along Smith's Green is well established and obstructs views to the Site.

- Receptor Type: A: Residents at home;
- Nature of view: Moderate. Varies depending on plot boundary treatments and proximity to Smith's Green
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR9: High

3.64. **VR10 – Residents at Longcroft and Roseacres** are predominantly orientated towards Bull Field. They may have glimpses from occasional upper floor windows of the 7 Acres parcel where orientated to the north. At ground level the views are obscured by the southern boundary vegetation. Positive elements in the view include Prior's Wood. Detractors include the varying boundary treatments which form the settlement edge. Views 17a and 18 are taken from within the built-up area. The Site is not visible.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. There are no views of the Site.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.

- Sensitivity of VR10 to the proposed change: Moderate

3.65. **VR11 – Residents at Central Takeley** have views towards Prior’s Wood from elevated areas where properties are orientated towards the Site. The Site is not visible in the view. View 16 is representative of these views.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. The view to the site is largely screened/obscured by intervening feature.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Low. A view which contains some positive attributes but is not rare and does not have any local value attached to it.
- Sensitivity of VR11: Low

3.66. **VR12 – Residents at Parsonage Road** have glimpsed views between the Weston Business Centre and Innovation Centre towards the 7 Acres parcel with Prior’s Wood beyond. The Site is not visible in these views.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. There are no views of the Site.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR12 to the proposed change: Moderate

3.67. **VR13 – Walkers at PROW 48\_21 (Harcamlow Way)** have partial to glimpsed views across the rural landscape which forms the setting to Parsonage Road. View 20 is representative of views towards the Site. The Site is not visible.

- Receptor Type: A: Walkers using a Public Right of Way;
- Nature of view: Poor. There are no views of the Site.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR13 to the proposed change: Moderate



3.68. **VR14 – Residents at Parkers Farm** are likely to have glimpsed views towards the Site, through vegetation along its northern boundary. View 22 indicates the relationship between the farm buildings and the Site.

- Receptor Type: A: Residents at home;
- Nature of view: Moderate. The view to the site is partially screened/enclosed and is interrupted by some natural/man-made features.
- Susceptibility: High. The components and qualities of the view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR14: High

3.69. **VR15 – Workers and residents at Warish Hall** may have glimpsed views towards the Site, through vegetation along its northern boundary. View 23 indicates the relationship between Warish Hall and the Site.

- Receptor Type: A / B: Residents at home / people at their place of work
- Nature of view: Poor. The view to the site is largely screened/obscured by intervening features.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR15: Moderate

3.70. **VR16 –Motorists at Smith’s Green (N)**. Views 22 and 23 are also representative of the views motorists will experience as they approach Smith Green from the north. Vegetation immediately north of the Site obstructs views towards the Site.

- Receptor Type: A: Walkers / motorists using a public right of way;
- Nature of view: Poor. The view to the site is largely screened/obscured by intervening features.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VR16: Moderate

3.71. **VRs 17, 18 and 19.** In longer distance views from Bambers Green, Frogs Hall and Parsonage Lane North the Site is not visible. Prior’s Wood is visible and contributes to the skyline. Views 24, 25 and 26 are representative of the longer distance views towards the Site.

- Receptor Type: A: Residents at home;
- Nature of view: Poor. The Site is not visible.
- Susceptibility: Medium. The components and qualities of the view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
- Value of the View: Moderate. A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
- Sensitivity of VRs 17, 18 and 19: Moderate

3.72. A summary of the assessment of sensitivity of visual receptors is provided below:

Ref	Name	Type of receptor	Nature of view	Susceptibility to change	Value of view	Sensitivity to proposed change
VR1	Visitors to Weston Homes Business Centre and Innovation Centre	B	Poor	Low	Moderate	Low
VR2	Residents at North Road	A	Poor	Medium	Moderate	Moderate
VR3	Walkers on PROW 48_40	A	Moderate	High	Moderate	High
VR4	Residents E of Smith’s Green	A	Moderate to Poor	High	Moderate	High
VR5	Walkers on PROW 48_41	A	Moderate	High	Moderate	High
VR6	Walkers on PROW 48-25	A	Moderate	High	Low	Moderate
VR7	Residents at Jacks Lane	A	Moderate	High	Low	Moderate
VR8	Walkers and motorists at Smith’s Green	A	Poor	Medium	Moderate	Moderate
VR 9	Residents W of Smith’s Green	A	Moderate	High	Moderate	High
VR10	Residents at Longcroft and Roseacres	A	Poor	Medium	Moderate	Moderate
VR11	Residents at Central Takeley	A	Poor	Medium	Low	Low
VR12	Residents at Parsonage Road	A	Poor	Medium	Moderate	Moderate
VR13	Walkers at Harcamlow Way	A	Poor	Medium	Moderate	Moderate
VR14	Residents at Parkers Farm	A	Moderate	High	Moderate	High
VR15	Workers / residents at Warish Hall	A/B	Poor	Medium	Moderate	Moderate
VR16	Motorists at Smith’s Green (N)	A	Poor	Medium	Moderate	Moderate
VR17	Residents at Bamber’s Green	A	Poor	Medium	Moderate	Moderate

Ref	Name	Type of receptor	Nature of view	Susceptibility to change	Value of view	Sensitivity to proposed change
VR18	Residents / Workers at Frog Hall Farm	A/B	Poor	Medium	Moderate	Moderate
VR19	Motorists at Parsonage Road North	B	Poor	Medium	Moderate	Moderate

**Table 2: Summary table of sensitivity of visual receptors**

#### 4. SCHEME PROPOSALS

- 4.1. The scheme proposals have previously evolved through extensive consultation with the local planning authority and a design review panel to ensure an appropriate built form is proposed in the context of the existing settlement boundaries and patterns. Within the Site the proposals include residential units with parking and open space.
- 4.2. Access will be from Smiths Green at the existing gap in the boundary hedgerow so as to minimise the removal of vegetation.
- 4.3. Building heights are appropriate to the adjacent settlement areas and will be no greater than two storey. Single storey dwellings are focussed to the southern edge in response to the built form at Jacks Lane.
- 4.4. Boundary treatments proposed include brick walls and timber close board fencing to rear gardens except where they back onto the retained vegetated site boundary where wire fencing and new planting will ensure the Site maintains its strong sense of enclosure. New planting associated with the open space along the northern boundary will be native and will enhance the setting to the public right of way.

**5. EFFECTS OF SCHEME PROPOSALS**

- 5.1. This section of the report considers the significance of the effects of the proposed development on both the landscape character and visual amenity.
- 5.2. The Effects of development are considered in terms of Magnitude of Change and the Sensitivity of both the landscape character areas and visual receptors. Effects are predicted at three stages: ‘during construction’, at ‘year 1 operation’ and at ‘year 15’, to establish the temporary and residual implications of the development proposals. Year 15 is used to determine the Residual Effects when the established planting proposals would have matured and achieved their full screening potential. The definitions of terms used are found in Appendix A.
- 5.3. Whether the residual effects will be adverse or beneficial was considered in the documents submitted to support the Appeal for the wider site. Our methodology provides the following criteria in this regard.
- 5.4. The ‘**effects**’ of change can be either **beneficial** (positive), **adverse** (negative) or **neutral** and is determined by weighting a combination of the following criteria:

<b>Beneficial Criteria (+)</b>
<ul style="list-style-type: none"> <li>• Fits well with scale of landform &amp;/or pattern of an area/view</li> <li>• Increases attributes or enhances in contribution to an area/setting/view</li> <li>• Enhances balance of elements in an area/view or sense of tranquillity</li> <li>• Provides ability to include adequate or appropriate mitigation</li> <li>• Complements local/national planning policies or guidance to protect an area’s character or a view</li> </ul>
<b>Adverse Criteria (-)</b>
<ul style="list-style-type: none"> <li>• Out of scale with landform &amp;/or pattern of an area/view</li> <li>• Loss of attributes or deterioration in contribution to an area/setting/view</li> <li>• Disrupts balance of elements in an area/view or sense of tranquillity.</li> <li>• Lacks ability to include adequate or appropriate mitigation</li> <li>• Conflicts with local/national planning policies or guidance to protect an area’s character or a view</li> </ul>
<b>Neutral</b>
<ul style="list-style-type: none"> <li>• Where there is no discernible change to an area’s character or a view</li> <li>• Where there is no positive or negative affect on an area’s character or a view</li> </ul>

- 5.5. The previous submission took the view that, whilst the land was being replaced by development, there were positive features being brought into the Site which could add visual interest and these elements could be seen to be appropriate to the Site’s setting adjacent to the settlement edge.
- 5.6. In light of the Appeal process, and critique provided, we have reviewed our assessment to acknowledge that, in this scenario, the adverse criteria of loss of open land (in terms of landscape character and views) could be seen to result in residual adverse effects despite the positive

elements which will be introduced, the latter being dependant on the detail submitted to clear Conditions.

**Effects on Site Features**

- 5.7. During construction there will be a limited amount of tree and hedgerow clearance as indicated on the Barton Hyett Associates Arboricultural Impact Assessment (AIA) of October 2022. A total of 3 trees will be removed from the site boundaries to facilitate the new development. This includes 2 of moderate arboricultural condition and 1 of low condition. Localised areas of vegetation clearance will be necessary to facilitate the vehicular and pedestrian accesses and to accommodate the new buildings in the southern corner.
- 5.8. The AIA concludes the following:
- ‘...the proposed development can be implemented with limited arboricultural impact. The relative minor loss of trees and hedgerows can be readily mitigated in the medium term through the provision of new tree and hedgerow planting as part of the landscape planting proposal for the site..’.*
- 5.9. The landscape proposals will see new trees and habitats being proposed which will replace the existing land use. Overall, there will be a moderate effect on vegetation cross the site. The direction of the effect will be beneficial.
- 5.10. Pedestrian links will be provided through the Site from Smith’s Green to the adjacent public right of way. There will be an enhancement to the public right of way network in the vicinity of the Site.
- 5.11. Any existing ditches along the Site boundaries will be enhanced for drainage, wildlife, and amenity value. Additional SuDS features will be implemented within the public realm in the form of permeable paving.
- 5.12. The only permanent residual adverse effects on site features will be the loss of arable farmland and of localised vegetation along the Site’s boundaries. New planting and provision of wildlife habitats will mitigate for these losses.
- 5.13. At year 1 and beyond the proposals will result in a notable enhancement to the site features with a residual beneficial effect on trees and drainage features.

**Effects on Landscape Character**

- 5.14. At a National and Regional scale there will be no notable effect on the landscape character of the South Suffolk and North Essex Clayland or the Central Essex Farmlands. None of the key characteristics of these wider character areas will be lost, or adversely affected, by the scheme proposals. The replacement of one small arable field with an employment Site will have no residual adverse effects at this scale.
- 5.15. At a Local Scale the loss of arable land will be permanent and the effects on landscape character will be adverse during construction and at year 1. In time, as the landscape matures, the new built form and green infrastructure has the potential to bring enhancements to the settlement edge and could provide an extended, improved employment area. There will be no loss of landscape features identified in published assessments and no effect on tranquillity or remoteness within the Broxted Farmland Plateau. The low change to the landscape will result in a minor effect. Whilst there will be positive elements brought into the Site which could bring residual benefit, the direction of the effects on the local landscape will remain adverse in the long term due to the replacement of an open arable field with development.
- 5.16. The Site itself will see a high change with a corresponding substantial effect. The direction of effect will be adverse during construction and at year 1 before the landscape has had chance to mature. In time, at year 15 and beyond, the change will remain high due to the extent of change across the whole site. The new planting and open space areas have the potential to mature to provide an enhancement to the Site character and a sense of place for users of the Site, however the direction of the effects on the Site will remain adverse in the long term due to the replacement of an open arable field with development.
- 5.17. A summary of the anticipated effects on landscape character is provided below:

Name	Sensitivity	Magnitude of Change			Effects and Direction of Change on Landscape Character		
					Temporary Effects		Residual Effects
					Construction	Year 1	Year 15
NCA 86. South Suffolk and North Essex Clayland	Moderate	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Central Essex Farmlands	Moderate	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Broxted Farmland Plateau	Moderate to High	Low	Low	Low	Minor; Adverse	Minor; Adverse	Minor; Adverse
The Site	Moderate	High	High	High	Substantial; Adverse	Substantial; Adverse	Substantial; Adverse

**Table 3: Summary of effects on Character**

**Effects on Visual Receptors**

- 5.18. The most notable visual effects will be on those overlooking the Site, namely residents at Smith’s Green (incl Maggotts Cottages) and at Jacks Lane (incl Oak Lodge) and users of PROW 48-25. The retention of vegetation along the Site boundaries and the appropriate height of the new built form will reduce the significance of effects in the long term. All receptors originally identified for the wider site are briefly considered below.
- 5.19. **VR1 - Visitors to Weston Business Centre and Innovation Centre and VR2 -Residents at North Road** will see no change in their views as a result of the proposed development at Jacks Field.
- 5.20. **VR3- Walkers on PROW 48-40** will see their views changed as they travel towards the Site from the west and as they approach Smith’s Green. The existing boundary vegetation will mostly be retained to filter views to the new development. The existing gap in the roadside hedgerow will be marginally widened to facilitate the new access. The new housing is set back from the boundary to Smith’s Green. There will be a low change in the views with a corresponding moderate effect. During construction and at year 1 the direction of the effects will be adverse with the new built form forming a dominant element in the view. New tree planting at the entrance road will reduce the significance of the effects to minor in the long term.
- 5.21. **VR4- Residents east of Smith’s Green.** Properties set back from the road, behind mature boundary vegetation (including Woodside and Hollow Elm) will see a low change in their views due to the

screening value of the intervening vegetation to the rear of their properties. Maggotts Cottages have open views into the Site and they will see a high change in their views with a corresponding substantial significance. During construction, and at year 1, there will be adverse effects due to the loss of arable farmland and replacement with a working construction site and new built form. Beyond year 1, as the landscape matures the new planting will filter views but the residual effects on Maggotts Cottages will remain substantial in the long term. New tree planting to the Site's boundary with this property will reduce the magnitude of change but the direction will remain adverse.

- 5.22. **VR5 - Walkers on PROW-48-41** will notice a low change in their views as they travel towards the Site where the new built form will be glimpsed beyond the vegetation along Smith's Green. The significance of the effects will be moderate. During construction and at year 1 the direction of the effects will be adverse with the new built form being visible in the view. New planting at the site entrance and within the rear gardens backing onto Smith's Green will reduce the effects in the long term.
- 5.23. **VR6 – Walkers on PROW 48\_25** will see their transient views change as they pass the Site. During summer months these changes will be less noticeable, however, as a worst case scenario, during winter months when transient views into the Site are possible the receptors will experience a high change in their views with a corresponding substantial effect whilst construction operations are underway. At year 1 the introduction of new housing will see a medium change with a corresponding moderate effect. The new native planting associated with the public open space and street frontage will mature in the long term. This will enhance the sense of enclosure along the footpath and will introduce positive elements into the view to compliment the new built form where glimpsed in winter months. At year 15 the change in the view will be low with a corresponding minor effect.
- 5.24. **VR7 – Residents at Jacks Lane** will see filtered views of the development through the boundary vegetation. The magnitude of change will vary from medium to high during the construction period when high level machinery and construction operations will be more noticeable. Beyond year 1, as the new vegetation in rear gardens matures, the effects will be reduced to minor.
- 5.25. **VR8- Walkers and motorists at Smith's Green (s)** will see no change to their views as a result of the proposed development.



- 5.26. **VR9 – Residents west of Smith’s Green** may have glimpses of the proposed development from their curtilage towards the Site. During construction there will be adverse effects with operations visible on site. These effects will be short-lived. At year one the new built form will present a low change in the view with a corresponding moderate effect. The effects will be adverse until the landscape matures to filter views towards the extended employment site. The residual effects will be beneficial as the mature landscape will filter views towards the existing employment site and the new built form in the southern parts of the Site.
- 5.27. **VR10 – Residents at Longcroft and Roseacres** will see no change to their views as a result of the proposed development.
- 5.28. **VR11 – Residents at Central Takeley** will see no change to their views as a result of the proposed development.
- 5.29. **VR12 – Residents at Parsonage Road** will see no change to their views as a result of the proposed development.
- 5.30. **VR13 – Walkers at PROW 48\_21 (Harcamlow Way)** will see no change to their views as a result of the proposed development.
- 5.31. **VR14 – Residents at Parkers Farm** may have glimpses of the upper elements of the construction works and the completed built form at year 1. The effects associated with this low change will be moderate, the direction adverse. Beyond year 1 as the tree planting within the scheme matures the extent to which the proposals are seen will be reduced to negligible.
- 5.32. **VR15 – Residents / Workers at Warish Hall** may have glimpses of the upper elements of the construction works and the completed built form at year 1. The effects associated with this low change will be moderate, the direction adverse. Beyond year 1 as the tree planting within the scheme matures the extent to which the proposals are seen will be reduced to negligible.
- 5.33. **VR16 – Motorists and pedestrians at Smith’s Green (N)** may have glimpses of the upper elements of the construction works and the completed built form at year 1. The effects associated with this low change will be minor, the direction adverse. Beyond year 1 as the tree planting within the scheme matures the extent to which the proposals are seen will be reduced to negligible.
- 5.34. **VR17, 18 and 19 – Residents at Bampers Green, Workers at Frog Hall Farm and Motorists at Parsonage Road North** will see no change to their views as a result of the proposed development.

5.35. Table 4 below sets out the effects of the proposed development on the visual receptors.

Ref	Name	Sensitivity	Magnitude of Change			Effects and Direction on Visual Amenity		
						Temporary Effects		Residual Effects
						Construction	Year 1	Year 15
VR 1	Visitors to Weston Homes & Skyway House	Low	None	None	None	None	None	None
VR2	Residents at North Road	Moderate	None	None	None	None	None	None
VR3	Walkers on PROW 48_40	High	Low	Low	Negligible	Moderate; Adverse	Moderate; Adverse	Minor; Adverse
VR4	Residents E of Smith's Green (incl Maggotts Cottages)	High	Low to High	Low to High	Negligible to Moderate	Moderate - Substantial; Adverse	Moderate - Substantial; Adverse	Minor to Substantial; Adverse
VR 5	Walkers on PROW 48-41	High	Low	Low	Negligible	Moderate; Adverse	Moderate; Adverse	Minor; Beneficial
VR 6	Walkers on PROW 48-25	Moderate	High	Medium	Low	Substantial; Adverse	Moderate; Adverse	Minor; Adverse
VR7	Residents at Jacks Lane (incl Oak Lodge)	Moderate	Medium to High	Medium	Low	Moderate - substantial; Adverse	Moderate; Adverse	Minor; Adverse
VR8	Walkers and motorists at Smith's Green (S)	Moderate	None	None	None	None	None	None
VR9	Residents W of Smith's Green	High	Low	Low	Negligible	Moderate; Adverse	Moderate; Adverse	Minor; Adverse
VR10	Residents at Longcroft and Roseacres	Moderate	None	None	None	None	None	None
VR11	Residents at Central Takeley	Low	None	None	None	None	None	None
VR12	Residents at Parsonage Road	Moderate	None	None	None	None	None	None
VR13	Walkers at Harcamlow Way	Moderate	None	None	None	None	None	None
VR14	Residents at Parkers Farm	High	Low	Low	Negligible	Moderate; Adverse	Moderate; Adverse	Minor; Adverse
VR15	Workers / Residents at Warish Hall	Moderate	Low	Low	Negligible	Minor; Adverse	Minor; Adverse	None / Neutral
VR16	Motorists at Smiths Green N	Moderate	Low	Low	Negligible	Minor; Adverse	Minor; Adverse	None / Neutral
VR17	Residents at Bamber's Green	Moderate	None	None	None	None	None	None
VR18	Residents / Workers at Frog Hall Farm	Moderate	None	None	None	None	None	None
VR19	Motorists at Parsonage Road North	Moderate	None	None	None	None	None	None

**Table 4: Summary of Significance of Effects on Visual Amenity**

**Night time effects**

- 5.36. The addition of conventional street lighting in this area would have a limited effect at night due to the existing lighting in place throughout the adjacent existing residential and employment areas. The impact of lighting can be reduced through the specification of fittings which avoid light spillage or glare and, as a consequence, should not have any harmful effects on the adjacent countryside and residential areas. These measures can be addressed with the clearance of conditions through detailed design and specification.

**6. CONCLUSION**

- 6.1. The Site is comprised of 1 small arable field. It abuts the existing settlement edge of Little Canfield along its eastern and southern boundaries. It has no rare or distinctive landscape features within its boundaries, however it does make a moderate contribution to the heritage setting of Listed Buildings at Smith's Green which results in its Site character being assessed as moderate. Despite its proximity to various heritage features it is visually very well contained by the mature vegetation along all of its boundaries.
- 6.2. The proposals seek to replace the arable field with a new housing Site which is in keeping with the settlement patterns and scale of the adjacent settlement areas.
- 6.3. The majority of vegetation along the Site's boundaries will be retained to maintain the sense of enclosure and reduce the effects on views from adjacent receptors.
- 6.4. The loss of arable land will be permanent, and irreversible, and the introduction of new housing will have a notable effect on the Site's landscape character and the views from adjacent residential properties and public rights of way. However, any notable adverse effects will be mitigated and the scheme proposals have the ability to comply with National to Local Policies to present a high quality, innovative scheme, with landscape elements which could enhance the local landscape and views in the long term. The extent of residual adverse effects has been reduced through careful planning and consideration of each receptor affected by the proposals. This is particularly so, given the enclosed nature of this land parcel.
- 6.5. The Site is contained within the Countryside Protection Zone (CPZ) which seeks to maintain a local belt of open countryside around Stansted airport which will not be eroded by coalescing

development, as stated in Policy S8 of the Uttlesford Local Plan. The LVIA demonstrates that views towards the new development will be mostly constrained to nearby receptors and that wider views from the open landscape will be limited. By ensuring development is maintained to abut the existing settlement edge the proposals will make a long-term contribution to establishing an improved green settlement edge whilst maintaining a sense of openness south of the airport.

- 6.6. The scheme proposals will present a sustainable, innovative, high quality, well-designed extension to the existing settlement edge. They will be sympathetic to local character and history, including the surrounding built environment and landscape setting and will conserve and enhance the natural environment through the introduction of new areas of public realm and open space. The proposals have the ability to comply with the objectives of the National Planning Policy Framework.
- 6.7. The proposed architecture will be compatible with the scale, form, layout, appearance and materials of the surrounding settlement areas. The layout seeks to minimise environmental impact on neighbouring properties by appropriate mitigation measures. There will be a notable increase in trees and amenity space as a result of the scheme proposals. As such the proposals have the ability to comply with Uttlesford Local Plan Policies GEN2, ENV3, ENV8, S7 and S8'.

**APPENDIX A**

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**ALLEN PYKE ASSOCIATES**

**(Landscape Consultants)**

**Methodology & Definition of  
Landscape and Visual Impact Assessment Terms**

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# METHODOLOGY & TERMS FOR LANDSCAPE AND VISUAL IMPACT ASSESSMENTS

## INTRODUCTION

This document set out the methodology and terms used by Allen Pyke Associates in LVIA's and Environmental Statements to establish and describe the potential effects on landscape character and visual amenity of a development

The methodology has been adapted from the guidance given in the Landscape Institute/IEMA publication 'Guidelines for Landscape and Visual Impact Assessment' (3<sup>rd</sup> Edition 2013).

The approach has been adapted to allow the assessment of broad urban areas but is not designed to provide the detailed appraisal required for specific townscape studies (see Landscape Institute TCA Technical Note: 05/2017)

The assessment process is divided into two stages:

- **STAGE 1: Assessment of Existing Baseline Conditions & Sensitivity**
- **STAGE 2: Assessment of the Effects of the Proposed Development**

## STAGE 1: ASSESSMENT OF EXISTING BASELINE CONDITIONS & SENSITIVITY

The '**Sensitivity**' of the existing **landscape/townscape character** or **view** is determined through the combined assessment of the '**susceptibility to change**' and '**value**' of the area or view. The '**susceptibility to change**' is defined as '*the ability of the landscape to accommodate the proposed development without undue negative consequences*'. '**Susceptibility**' is derived by combining the '**Character**' of the area or type of ranking of the receptor experiencing the view with an assessment of its '**Condition**' of the landscape or the '**nature of the view**'.

### 1. DETERMINING SUSCEPTIBILITY TO CHANGE

#### 1a. Assessing Landscape/Townscape Character:

The '**Character**' of an area is defined using the following criteria:

Character	Criteria
<b>High</b>	Where the area is wholly/predominately intact, may have no/few incongruous elements or forms part of a wider distinct pattern/coherent landscape/townscape and has a highly recognisable or distinct sense of place.
<b>Moderate</b>	Where the area has a recognisable pattern, may have some incongruous elements that detract from/only make a moderate contribution to the intactness of the area, and provide some sense of place.
<b>Low</b>	Where the area has no recognisable pattern/structure, or may have few similar coherent/a disparate collection of elements that make little/no contribution to the intactness of the area, and result in a limited/no sense of place.

The '**Condition**' of the **Landscape/Townscape** is **defined** using the following criteria:

Condition	Criteria
<b>Good</b>	Where the area is highly managed/excellent good repair/quality
<b>Moderate</b>	Where the area is reasonably managed/average repair/quality
<b>Poor</b>	Where the area is un-managed/poor repair/quality



### 1b. Assessing Visual Amenity:

'Visual Receptor Types' are ranked in accordance with the land use of the viewpoint from which people (the receptors) will experience the view. These are defined using the following criteria:

Visual Receptor Type Ranking	Criteria
<b>Type A - High</b>	<ul style="list-style-type: none"> <li>- Residents at home or using their gardens;</li> <li>- People engaged in outdoor recreation, including the use of public rights of way, whose attention or interest is likely to be focused on the landscape or particular views;</li> <li>- Visitors to heritage assets, and/or to other attractions, where views of the surroundings are an important contributor to the experience;</li> <li>- Communities where views contribute to the landscape setting enjoyed by local residents.</li> </ul>
<b>Type B - Moderate</b>	<ul style="list-style-type: none"> <li>- Users of outdoor sport or recreation facilities that do not involve or depend on an appreciation of views in the landscape;</li> <li>- People at their place of work whose attention may be focussed on their work or activity, not on their surroundings.</li> <li>- Users of retail and employment sites, sports and recreational facilities where the views are secondary to the activity at hand;</li> <li>- Users of public roads and transport routes where views add to the travel experience.</li> </ul>
<b>Type C - Low</b>	<ul style="list-style-type: none"> <li>- Users of Industrial sites, agricultural land, derelict or abandoned land, or busy commuter links where there is little appreciation of the view.</li> </ul>

The 'Nature of the View' is defined as follows and considers the extent to which the site can be seen from a particular receptor:

Nature of View	Criteria
<b>Good</b>	Where there is an open view/panoramic view to or from the site and/or is not enclosed or interrupted by natural/man-made features.
<b>Moderate</b>	Where the view to or from the site is largely open and/or partially screened/enclosed and is interrupted by some natural/man-made features and/or the site is in the distance.
<b>Poor</b>	Where the view to or from the site is largely screened/obscured by intervening features, or is enclosed and/or only forms a minor part of the view, or the site is difficult to perceive in the distance.

### 1c. Quantifying Susceptibility to Change

Combining the 'Character' with 'Condition' or 'Visual Receptor Ranking' with 'Nature of the View' determines the 'Susceptibility to Change' of an area or view:

**MATRIX TABLE: LANDSCAPE & VISUAL SUSCEPTIBILITY TO CHANGE**

Character/Receptor Ranking	LANDSCAPE/TOWNSCAPE & VISUAL SUSCEPTIBILITY		
	<b>High/Type A</b>	High	High
<b>Moderate/Type B</b>	High	Medium	Low
<b>Low/ Type C</b>	Medium	Low	Low
	<b>Good/High</b>	<b>Moderate/Medium</b>	<b>Poor/Low</b>
	<b>Condition/Nature of View</b>		

The **definition** of the landscape/townscape or visual ‘**Susceptibility to Change**’ is:

Susceptibility	Criteria
<b>High</b>	Where the components and qualities of an area/view could be easily affected and would have a low ability/capacity to accommodate the proposed change.
<b>Medium</b>	Where the components and qualities of an area /view could be moderately affected and would have a medium ability/capacity to accommodate the proposed change.
<b>Low</b>	Where the components and qualities of an area /view could be affected in a minor/negligible manner and would have a high ability/capacity to accommodate the proposed change.

## 2. DETERMINING SENSITIVITY

### 2a. Assessing the Landscape / Townscape Value

The ‘**Value**’ of an area is defined as follows and considers any relevant designation or local recognition. For landscapes which are not designated the assessment considers the criteria set out in Table 1 of the Landscape Institute’s Technical Guidance Note TGN 21/02 ‘Assessing Landscape Character outside of Designated Landscapes’.

Value	Criteria	Examples	Level of importance/rarity
<b>Exceptional</b>	Very high importance and rarity.	World Heritage Site	International
<b>High</b>	High importance and rarity.	National Park, AONB, Broads or other statutory/inalienable area designations	National, Regional
<b>Moderate</b>	Moderate importance.	Non-statutory landscape (SLA, AGLV), Conservation Area, Heritage Coast, or valued undesignated area recognised through use/association/ publications. Valued locally for one or more of the criteria listed in Table 1 of TGN 21/02: Natural Heritage; Cultural Heritage; Landscape Condition; Associations; Distinctiveness; Recreational; Perceptual (scenic); Perceptual (wildness and tranquility); Functional.	County, Local
<b>Low</b>	Low importance with positive characteristics.	Undistinguished and undesignated area with some redeeming feature/features and possibly identified for or being improved.	Local
<b>Poor</b>	Low importance but with negative characteristics.	Area having few/no redeeming features and/or possibly identified for recovery.	Local

### 2b. Assessing the Value of the View

The ‘**Value of a view**’ is defined as follows and considers the relationship between specific features or locations with local residents and visitors and their enjoyment or quality of the view:

Value of View	Criteria
<b>Exceptional</b>	A view of high scenic value, natural/man-made beauty, and/or is uninterrupted by incongruous elements, and/or is an important recognised view within/towards or across a statutory designated landscape or heritage/locally important feature/viewpoint.
<b>High</b>	A view of good scenic value, natural/man-made beauty, and/or uninterrupted by incongruous elements, and/or is a recognised view within/towards or across a designated landscape or heritage/locally important feature/significant viewpoint.

<b>Moderate</b>	A view of some scenic value or intrinsic merit/natural/man-made beauty with some incongruous elements within, towards or across a locally important landscape/view or towards a locally recognised feature or reference point.
<b>Low</b>	A view of little/no intrinsic merit and contains some positive attributes and/or a view which is not rare and does not have any local value attached to it.
<b>Poor</b>	An open or partially screened view which is unsightly with no positive attributes and/or a view which is not rare and does not have any local value attached to it.

## 2c. Quantifying Sensitivity

### MATRIX TABLE: SENSITIVITY

Combining the 'Value' and the 'Susceptibility to Change' determines landscape/townscape character and visual sensitivity to change:

Landscape/ Visual Value	SENSITIVITY TO CHANGE		
	<b>Exceptional/High</b>	High	High
<b>Moderate</b>	High	Moderate	Low
<b>Poor/Low</b>	Moderate	Low	Low
	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>Landscape or Townscape/Visual Susceptibility</b>			

The definition of 'Landscape/Townscape or Visual Sensitivity' is as follows:

Landscape/Visual Sensitivity	Criteria
<b>High</b>	Where the elements that make up a character area or view are of considerable merit and/or would be difficult to restore or could not be replaced/removed without substantial detriment to the overall character area or view.
<b>Moderate</b>	Where the elements that make up a character area or view are of merit and/or could in part be restored or replaced/removed without a notable detriment to the overall character area or view.
<b>Low</b>	Where the elements that make up a character area or view are of little merit and/or could be restored or replaced/removed without detriment to the overall character area or view.

---

## **STAGE 2: ASSESSMENT OF THE SIGNIFICANCE OF THE EFFECTS OF DEVELOPMENT**

The assessment of ‘**Magnitude**’ and ‘**Significance**’ of the effects on both **Landscape/Townscape Character**’ and ‘**Visual Receptors**’ is undertaken during three periods to identify the temporary operational and residual effect of the proposed development:

- **Construction** (temporary effects)
- **Year 1 - Operational Period** (temporary effects with landscape/mitigation treatments established in part)
- **Year 15 – Operational Period** (residual effects after landscape/mitigation treatments established in full)

The ‘**Significance of the Effects**’ on landscape character and visual receptors can be positive or negative (**the ‘Direction’**) and are described as being either ‘**Beneficial**’ or ‘**Adverse**’. Where the development is unlikely to have any discernable influence the ‘**Direction**’ is described as being ‘Neutral’.

### **DETERMINING THE SIGNIFICANCE OF THE EFFECTS OF DEVELOPMENT**

The ‘**Significance**’ of the effects of development on landscape character and visual receptors is determined by combining the assessment of:

- the ‘**Sensitivity**’ of the landscape or view, as established in the (Stage 1) baseline assessment; and
- the potential ‘**Magnitude of Change**’ resulting from the proposed development.

#### **2a. Assessment of Magnitude of Change**

The following criteria are considered when assessing the ‘**Magnitude of Change**’ on landscape/townscape character or views:

- Scale, duration and/or reversibility of development;
- Effect of any components of the landscape that are likely to be affected by the scheme;
- The change in and/or partial or complete loss of elements, features or aspects that contribute to the character and distinctiveness of the landscape/townscape;
- The addition of new features or elements that will influence the area’s character; and,
- The landscape proposals and/or mitigation treatments.

The ‘**Magnitude of Change**’ on landscape/townscape character or view is **defined** using the following criteria:

<b>Magnitude of Change</b>	<b>Criteria</b>
<b>High</b>	Where the scale/type/extent of the proposed scheme (or works to facilitate it) would be the dominant element in or adjacent to a character area or view.
<b>Medium</b>	Where the scale/type/extent of the proposed scheme (or works to facilitate it) would be one of a number of important elements in or adjacent to a character area or view.
<b>Low</b>	Where the scale/type/extent of the proposed scheme (or works to facilitate it) would be a minor element in or adjacent to a character area or view.
<b>Negligible/None</b>	Where the scale/type/extent of the proposed scheme (or works to facilitate it) would be remote and/or be an inconsequential element in or adjacent to a character area or view.

#### **2b. Quantifying the Significance of Effects**

Combining the ‘**sensitivity**’ (from the Baseline Assessment) with the ‘**magnitude of change**’ including the contribution of the landscape proposals and/or mitigation measures determines the ‘**significance of effects**’ on landscape/townscape character or views/visual receptors:

**MATRIX TABLE: SIGNIFICANCE OF EFFECTS**

Sensitivity	SIGNIFICANCE OF EFFECTS			
	High	Substantial	Substantial	Moderate
Moderate	Substantial	Moderate	Minor	Neutral
Low	Moderate	Minor	Minor	Neutral
	High	Medium	Low	Negligible/None
	Magnitude of Change			

The ‘Significance of Effects’ to the temporary or residual changes in landscape/townscape character or for a view/visual receptor are defined as follows:

Effects on Character/Views	Criteria
<b>Substantial</b>	Where the scheme would cause a substantial change in the quality, condition and/or nature of the existing character area or view and the new development (or works to facilitate it) would be the dominant element.
<b>Moderate</b>	Where the scheme would cause a notable change in the quality, condition and/or nature of the existing character area or view and the new development (or works to facilitate it) would be one of a small number of elements in the overall setting.
<b>Minor</b>	Where the scheme would cause a slight change in the quality, condition and/or nature of the existing character area or view and the new development (or works to facilitate it) would be one of many elements in the overall setting.
<b>Neutral</b>	Where the scheme would cause a negligible or no change in the quality, condition and/or nature of the existing character area or view and the new development (or works to facilitate it) would be obscured or hidden by many other elements in the overall setting.

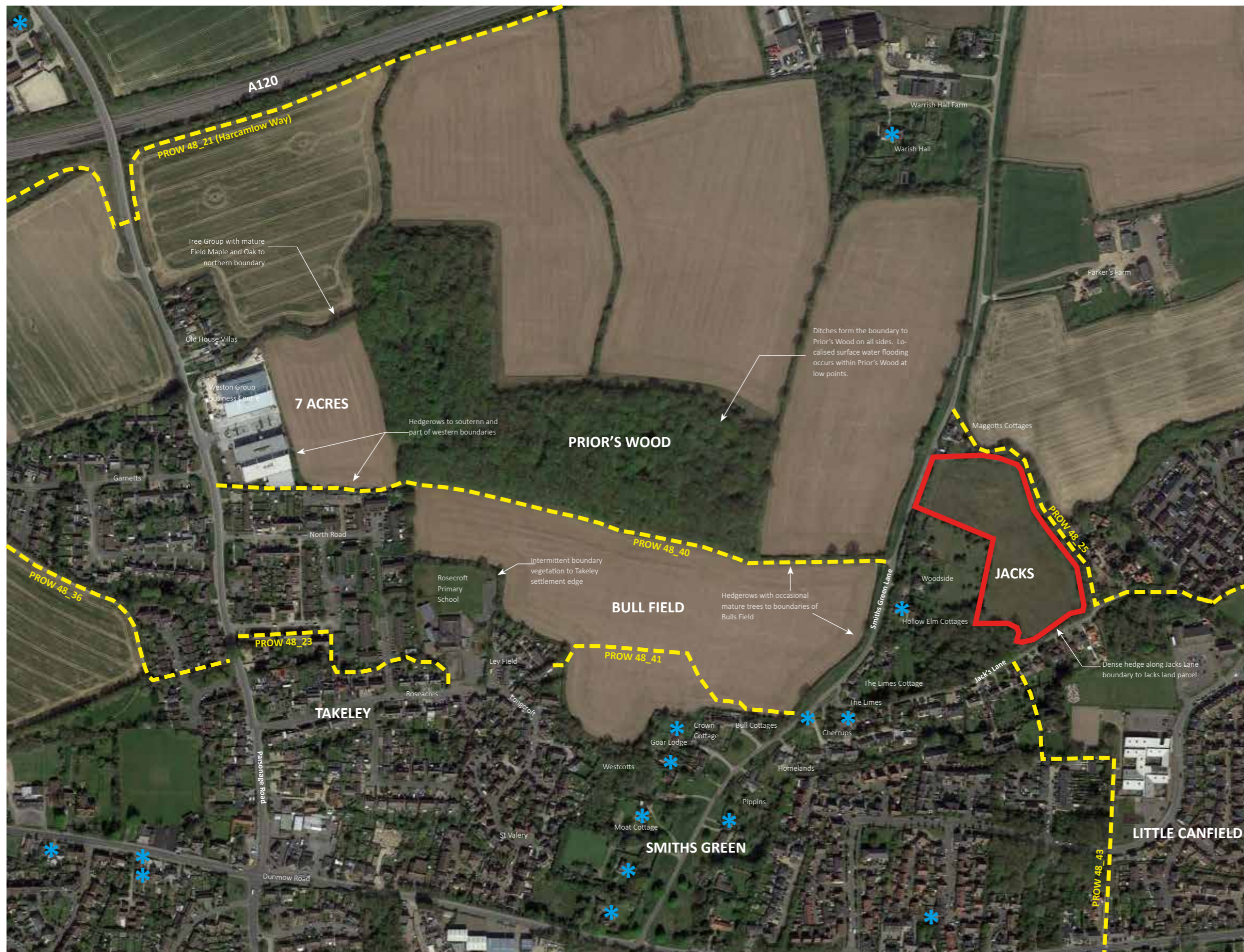
**2c. Quantifying the Direction of the Significance of Effects**

The ‘effects’ of change can be either **beneficial** (positive), **adverse** (negative) or **neutral** and is determined by weighting a combination of the following criteria:

<b>Beneficial Criteria (+)</b>
<ul style="list-style-type: none"> <li>• Fits well with scale of landform &amp;/or pattern of an area/view</li> <li>• Increases attributes or enhances in contribution to an area/setting/view</li> <li>• Enhances balance of elements in an area/view or sense of tranquillity</li> <li>• Provides ability to include adequate or appropriate mitigation</li> <li>• Complements local/national planning policies or guidance to protect an area’s character or a view</li> </ul>
<b>Adverse Criteria (-)</b>
<ul style="list-style-type: none"> <li>• Out of scale with landform &amp;/or pattern of an area/view</li> <li>• Loss of attributes or deterioration in contribution to an area/setting/view</li> <li>• Disrupts balance of elements in an area/view or sense of tranquillity.</li> <li>• Lacks ability to include adequate or appropriate mitigation</li> <li>• Conflicts with local/national planning policies or guidance to protect an area’s character or a view</li> </ul>
<b>Neutral</b>
<ul style="list-style-type: none"> <li>• Where there is no discernable change to an area’s character or a view</li> <li>• Where there is no positive or negative affect on an area’s character or a view</li> </ul>

**APPENDIX B**





APAL FILE REFERENCE  
2951-AS-7.1



**LEGEND**

- Site Boundary
- Public Rights of Way
- \* Listed Buildings / features

Properties referenced in the LVIA are labelled for ease of reference.

Rev	Description	Date	Drawn	Checked

Drawing Status  
**PLANNING**

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Client <b>Weston Homes</b>	Scale <b>See scalebar</b>
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Project <b>Jacks Field, Takeley</b>	By/Ckd <b>CR/CR</b>
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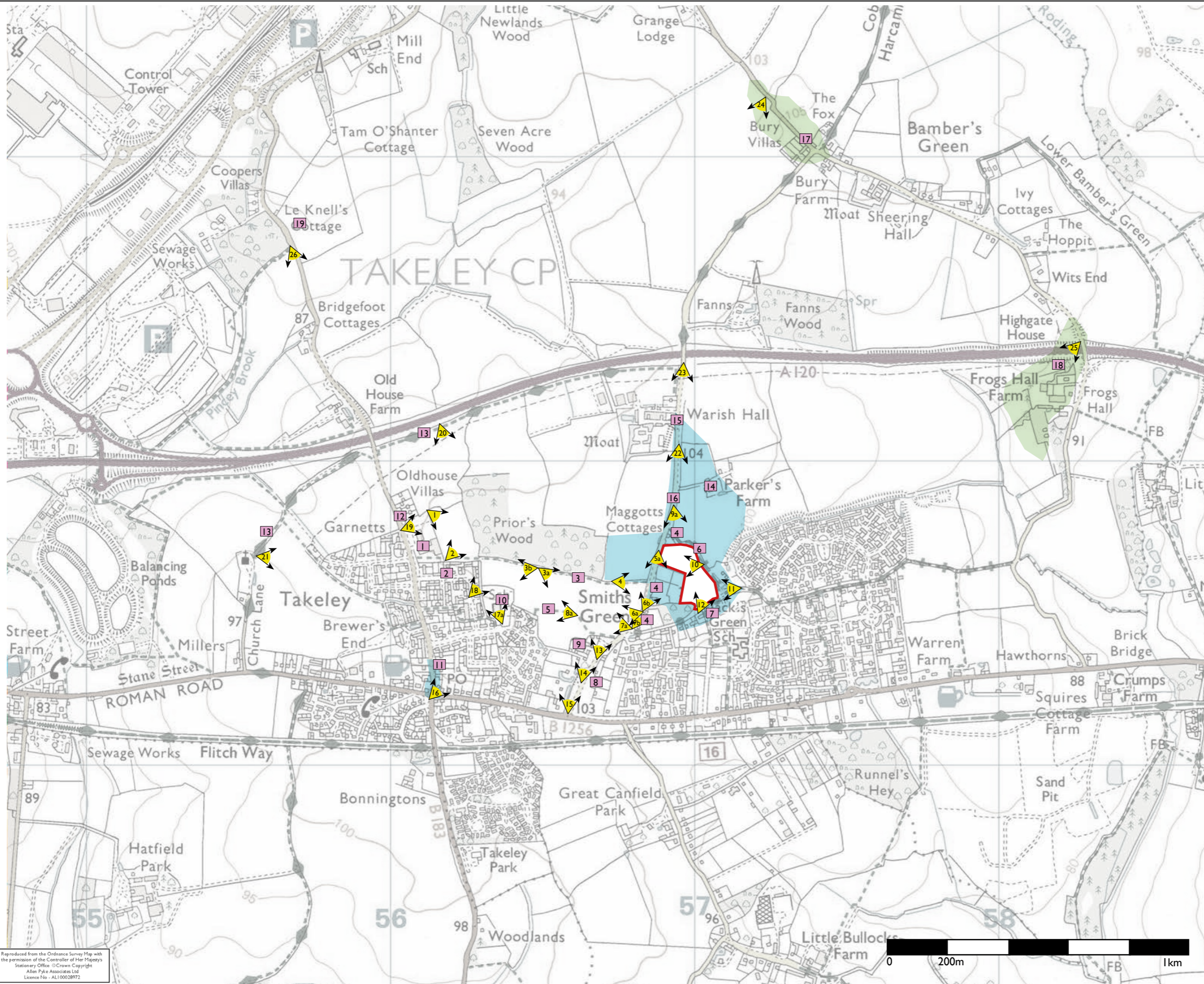
Drawing Title <b>Aerial Photograph</b>	Date <b>30/11/2022</b>
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Figure Number: <b>FIGURE 7.1</b>	Revision <b>PI</b>
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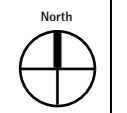
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






APAL FILE REFERENCE  
2953-AS-7.2



**LEGEND**

-  Site Boundary
-  Photograph Location
-  Visual Receptor (people with the potential to experience a change in their view)
-  Zone of Visual Influence (Land from which the proposed development may be visible)
-  Potential distant glimpses towards the Site

- Visual Receptors:
- VR1: Visitors to Weston Group Business Centre and Innovation Centre
  - VR2: Residents at North Road
  - VR3: Walkers on PROW 48\_40
  - VR4: Residents at Smith's Green (east of)
  - VR5: Walkers on PROW 48\_41
  - VR6: Walkers at PROW 48\_25
  - VR7: Residents at Jack's Lane
  - VR8: Motorists / walkers at Smith's Green (S)
  - VR9: Residents at Smith's Green (west of)
  - VR10: Residents at Longcroft and Roseacres
  - VR11: Residents at central Takeley
  - VR12: Residents at Parsonage Road
  - VR13: Walkers at PROW 48\_21
  - VR14: Residents at Parker's Farm
  - VR15: Workers / Residents at Warish Hall
  - VR16: Motorists / walkers at Smith's Green (N)
  - VR17: Residents at Bamber's Green
  - VR18: Residents / workers at Frog Hall Farm
  - VR19: Motorists at Parsonage Road (N)

Rev	Description	Date	Drawn	Checked

Drawing Status  
**PLANNING**

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Client	Scale
Weston Homes	See scalebar
Project	By/Ckd
JacksField, Takeley	CR/CR
Drawing Title	Date
Representative View Locations	30/11/22

Figure Number:	Revision
FIGURE 7.2	PI

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Approximation location  
of the Site beyond Prior's  
Wood and Smiths Green

Prior's Wood

Properties at North Road

Weston Group Business Centre




**VIEW 1** - View from the north western corner of the 7 Acres Site, looking south towards Prior's Wood. (The Site is not visible).

Weston Group  
Business Centre and  
innovation Centre

Prior's Wood



**VIEW 2** - View from PROW 48\_40 to rear of properties at North Road, at south western corner of the Site. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes				Scale NTS@A3
Project Jacks Field, Takeley				By/Ckd CR/CR
Drawing Title Representative Views 1 and 2				Date 30/11/22
Drawing Number: 2953-PS-7.1				Revision P1






**VIEW 3a** - View from the PROW 48\_40 looking south east. (The Site is not visible).



**VIEW 3b** - View from the PROW 48\_40 looking south west. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 3		30/11/22		
Drawing Number:		Revision		
2953-PS-07.2		P1		



Vegetation along Smiths Green filters  
views towards the Site

Maggotts Cottages

PROW 48\_40

Properties east of  
Smith's Green



**VIEW 4** - View from PROW 48\_40 looking east across the Site towards Smiths Green.


Vegetation along Smiths Green filters  
views towards the Site

Smiths Green

PROW 48\_40



**VIEW 5a** - View from Smiths Green looking south

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes				Scale NTS@A3
Project Jacks Field, Takeley				By/Ckd CR/CR
Drawing Title Representative Views 4 and 5				Date 30/11/22
Drawing Number: 2953-PS-07.3				Revision P1






**VIEW 6a** - View from Smiths Green looking south west. (The Site is not visible).



**VIEW 6b** - View from Smiths Green looking north.

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes		Scale NTS@A3		
Project Jacks Field, Takeley		By/Ckd CR/CR		
Drawing Title Representative View 6		Date 30/11/22		
Drawing Number: 2953-PS-07.4		Revision P1		






**VIEW 7a** - View from Smiths Green looking south west. (The Site is not visible).



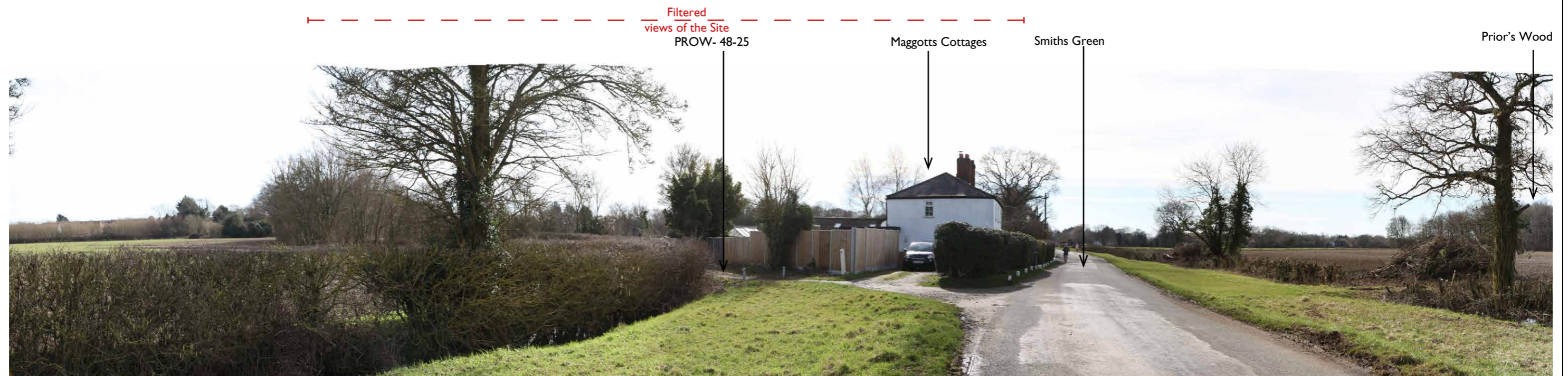
**VIEW 7b** - View from Smiths Green looking north.

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE A registered practice of the Landscape Institute				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative View 7		30/11/22		
Drawing Number:		Revision		
2953-PS-07.5		P1		






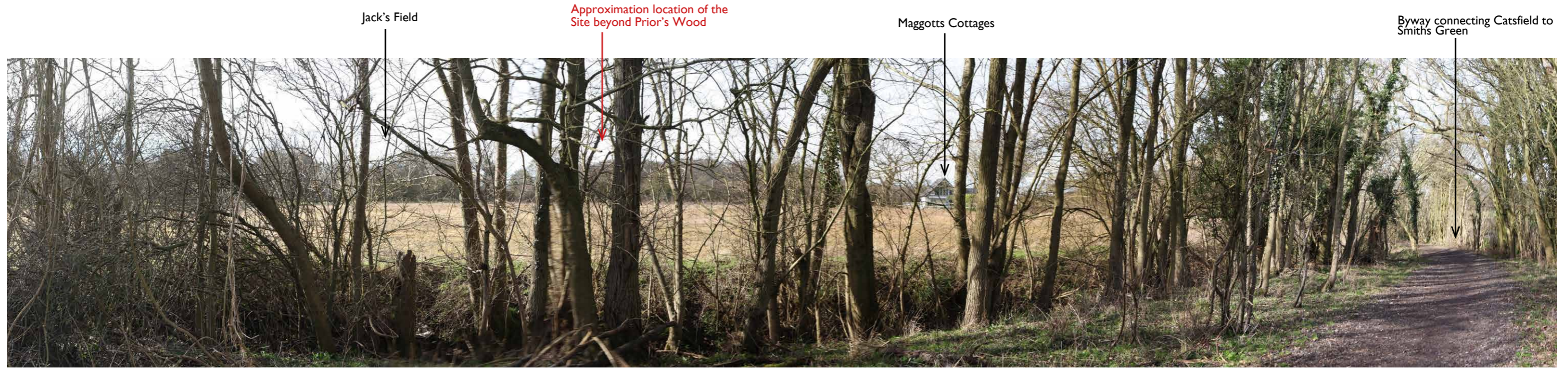
**VIEW 8a:** View from the public footpath PROW 48\_41 within Bull Field looking east



**VIEW 9:** View from Smiths Green looking south west

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 8 and 9		30/11/22		
Drawing Number:		Revision		
2953-PS-07.6		P1		






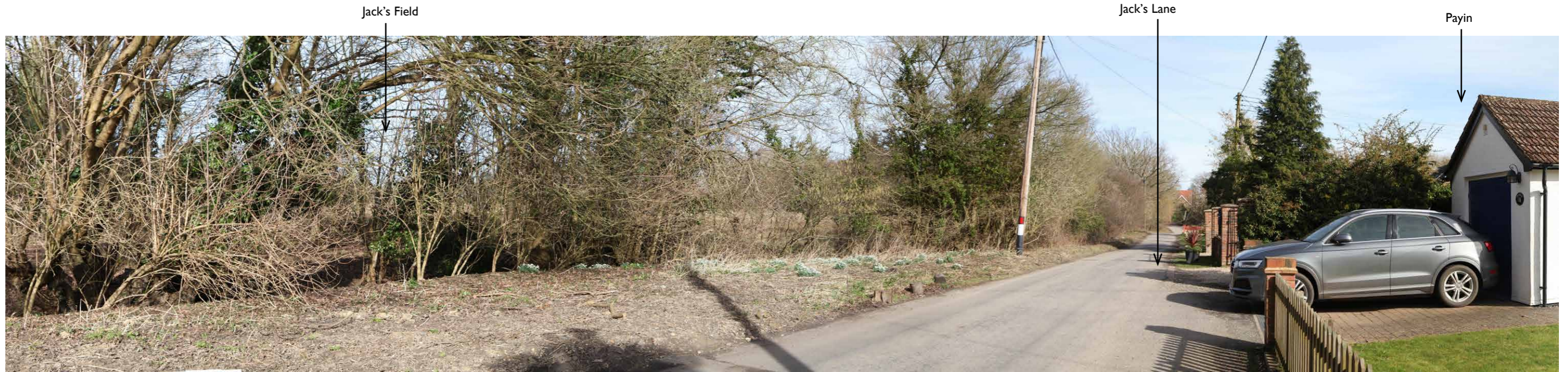
**VIEW 10:** View into Jack's Field from the public byway connecting Catsfield to Smiths Green. (The Site is not visible).



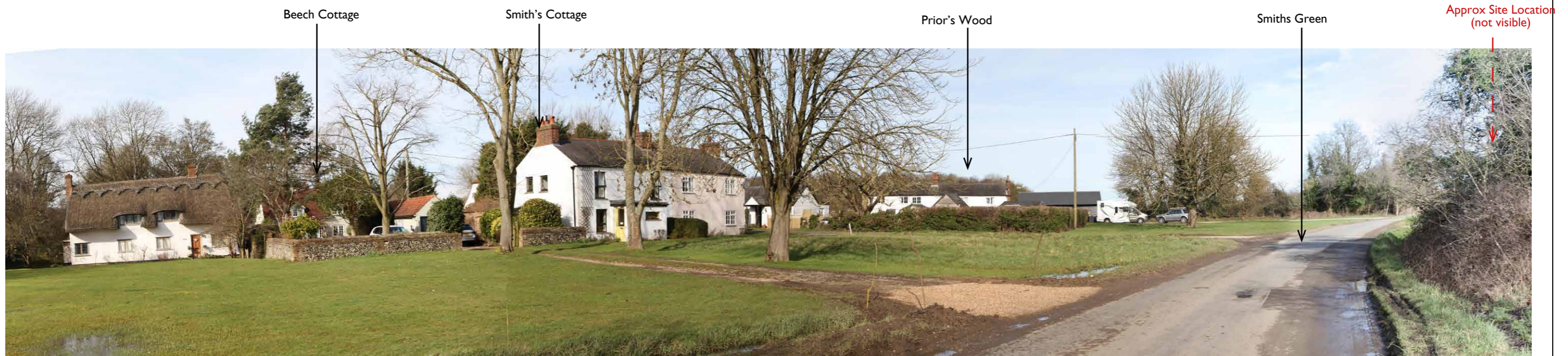
**VIEW 11:** View from byway at Catsfield looking west towards Jack's Field.

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 10 and 11		30/11/22		
Drawing Number:		Revision		
2953-PS-07.7		P1		






**VIEW 12:** View from Jack's Lane looking towards Jack's Field.



**VIEW 13:** View from Smiths Green, looking north towards Bull Field. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes		Scale NTS@A3		
Project Jacks Field, Takeley		By/Ckd CR/CR		
Drawing Title Representative Views 12 and 13		Date 30/11/22		
Drawing Number: 2953-PS-07.8		Revision P1		






**VIEW 14:** View from Smiths Green, looking north towards Bull Field. (The Site is not visible).



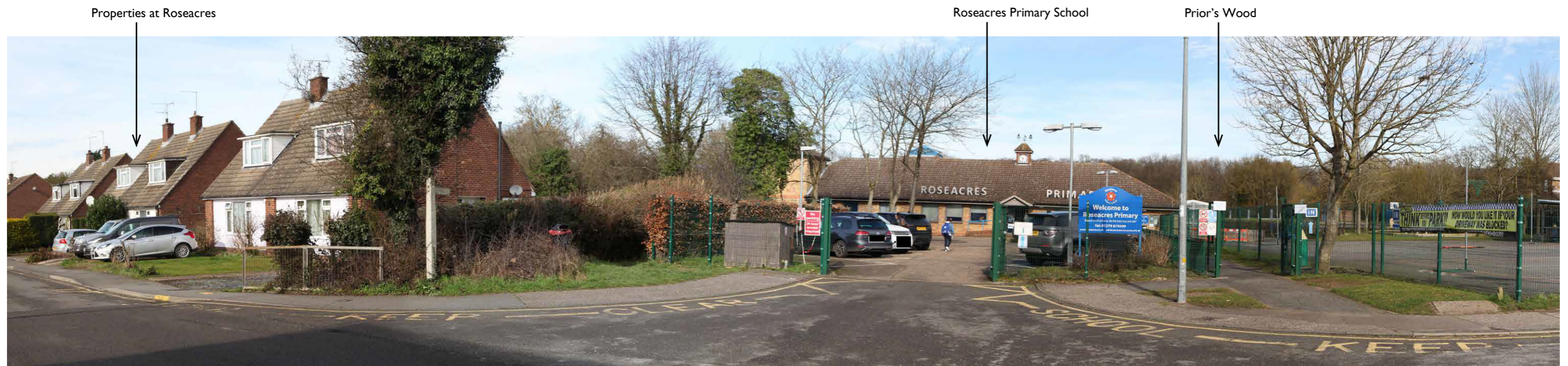
**VIEW 15:** View from Smiths Green at the junction with the B1256, looking north. Prior's Wood and Bull Field are not visible. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE A registered practice of the Landscape Institute				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 14 and 15		30/11/22		
Drawing Number:		Revision		
2953-PS-07.9		P1		






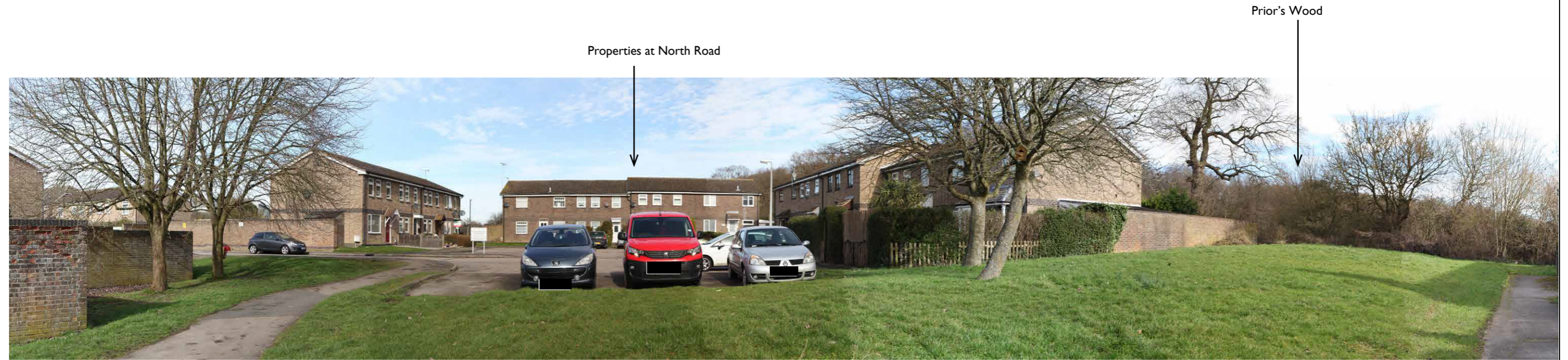
**VIEW 16:** View the centre of Takeley, looking north east. (The Site is not visible).



**VIEW 17a:** View from outside Roseacres Primary School, looking towards Prior's Wood. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE A registered practice of the Landscape Institute				
Client Weston Homes		Scale NTS@A3		
Project Jacks Field, Takeley		By/Ckd CR/CR		
Drawing Title Representative Views 16 and 17		Date 30/11/22		
Drawing Number: 2953-PS-07.10		Revision P1		






**VIEW 18:** View from footpath from Prior's Wood Road to North Road. (The Site is not visible).



**VIEW 19:** View from Parsonage Road looking towards the Site, behind Old house Villas and the Weston Business Centre. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 18 and 19		30/11/22		
Drawing Number:		Revision		
2953-PS-07.11		P1		



Approx Site Location  
(not visible)

Prior's Wood

Skyway House

Old House Villas




**VIEW 20:** View from Harcamlow Way (National Trail) from Prior's Wood Road to North Road. (The Site is not visible).

Approx Site Location  
(not visible)

Prior's Wood Skyway House



**VIEW 21:** View from Harcamlow Way at the Holy Trinity Church. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes		Scale NTS@A3		
Project Jacks Field, Takeley		By/Ckd CR/CR		
Drawing Title Representative Views 20 and 21		Date 30/11/22		
Drawing Number: 2953-PS-07.12		Revision P1		



Appr. extent of Site (not visible)

Parker's Farm

Smiths Green

The Site

Prior's Wood

Approx Site Location  
(not visible)



VIEW 22: View from Smiths Green looking south.

Appr. extent of Site (not visible)

Little Canfield


Parker's Farm

Warish Hall

Approx Site Location  
(not visible)



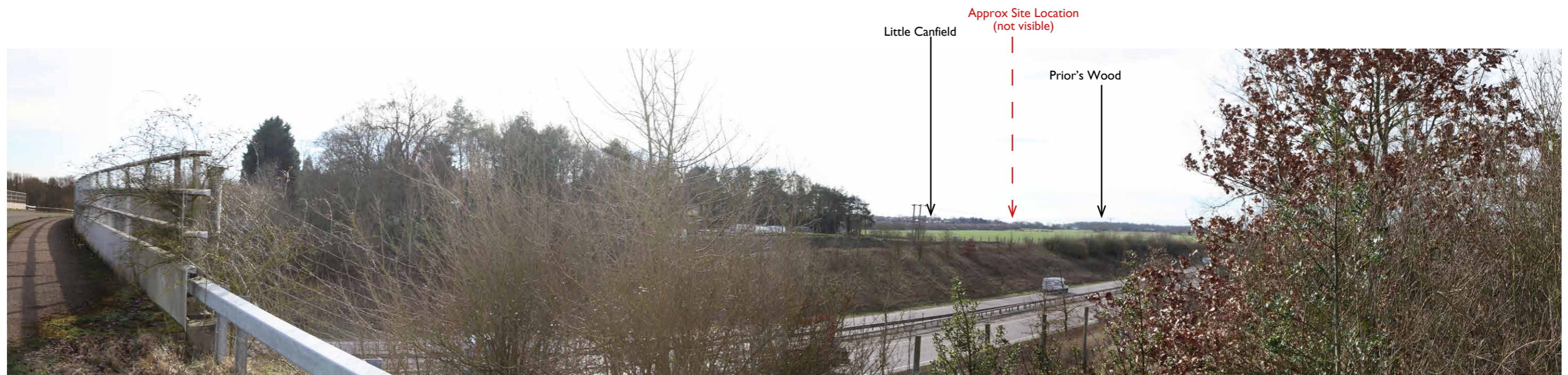
VIEW 23: View from Smiths Green as crosses the A120.

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE A registered practice of the Landscape Institute				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 22 and 23		30/11/22		
Drawing Number:		Revision		
2953-PS-07.13		P1		






**VIEW 24:** View from Bamber's Green looking south. (The Site is not visible).




**VIEW 25:** View from A120 crossing near Frogs Hall, looking west. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client Weston Homes		Scale NTS@A3		
Project Jacks Field, Takeley		By/Ckd CR/CR		
Drawing Title Representative Views 24 and 25		Date 30/11/22		
Drawing Number: 2953-PS-07.14		Revision P1		





**VIEW 26:** View from Parsonage Road looking south. (The Site is not visible).

Rev	Description	Date	Drawn	Checked
Drawing Status <b>PLANNING</b>				
 The Factory, 2 Acre Road, Kingston upon Thames, Surrey KT2 6EF T 020 8549 3434 KINGSTON UPON THAMES • CAMBRIDGE <small>A registered practice of the Landscape Institute</small>				
Client		Scale		
Weston Homes		NTS@A3		
Project		By/Ckd		
Jacks Field, Takeley		CR/CR		
Drawing Title		Date		
Representative Views 26		30/11/22		
Drawing Number:		Revision		
2953-PS-07.15		P1		

**APPENDIX C**





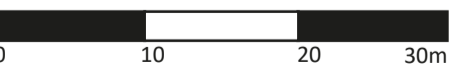
Legend

-  Application Boundary
-  Existing vegetation
-  Proposed trees
-  Proposed planting
-  Proposed amenity grass areas
-  Private rear gardens
-  Raised table crossing
-  Play area
-  Picnic benches
-  Bollards as vehicular barrier
-  3.5m wide foot and cycle path
-  Permeable paving access
-  Permeable paving to loop road



Jacks, Takeley

# Illustrative Landscape Masterplan





**APPENDIX D**



## Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper<sup>1</sup>, Biodiversity 2020<sup>2</sup> and the European Landscape Convention<sup>3</sup>, we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

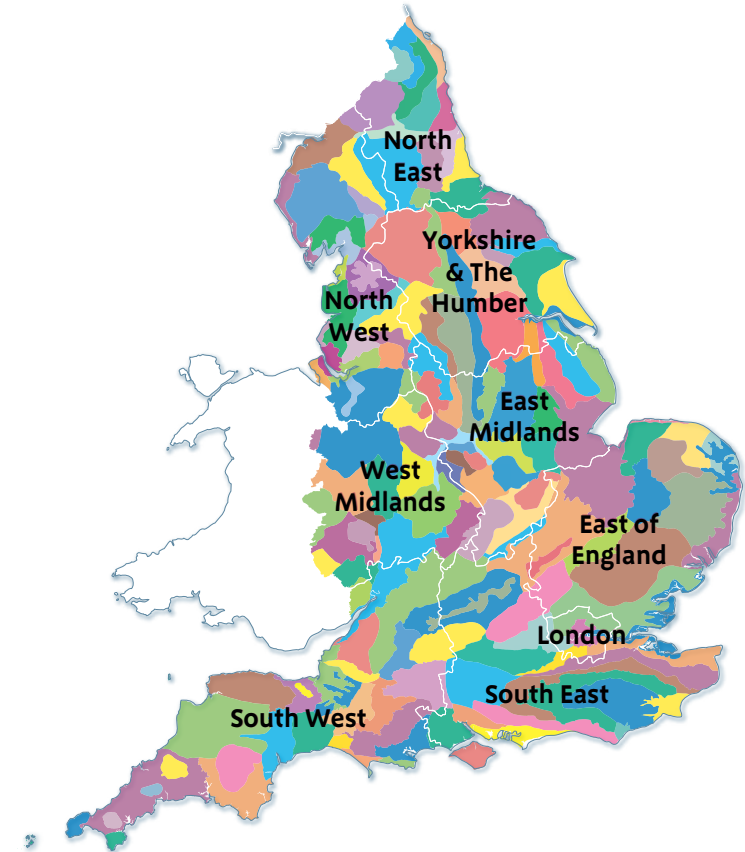
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing [ncaprofiles@naturalengland.org.uk](mailto:ncaprofiles@naturalengland.org.uk)

## National Character Areas map



<sup>1</sup> The Natural Choice: Securing the Value of Nature, Defra (2011; URL: [www.official-documents.gov.uk/document/cm80/8082/8082.pdf](http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf))

<sup>2</sup> Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: [www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf](http://www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf))

<sup>3</sup> European Landscape Convention, Council of Europe (2000; [redacted])



## Summary

The South Suffolk and North Essex Clayland National Character Area covers the four counties of Suffolk, Essex, Hertfordshire and Cambridgeshire. It stretches from Bury St Edmunds in the north-west to Ipswich in the north-east, roughly following the line of the A14 trunk road through the Gipping Valley. It then embraces the Colchester hinterland before encompassing the urban areas of Braintree and Chelmsford in the south and stretching to Bishop's Stortford and Stevenage in the west.

It is an ancient landscape of wooded arable countryside with a distinct sense of enclosure. The overall character is of a gently undulating, chalky boulder clay plateau, the undulations being caused by the numerous small-scale river valleys that dissect the plateau. There is a complex network of old species-rich hedgerows, ancient woods and parklands, meadows with streams and rivers that flow eastwards. Traditional irregular field patterns are still discernable over much of the area, despite field enlargements in the second half of the 20th century. The widespread moderately fertile, chalky clay soils give the vegetation a more or less calcareous character. Gravel and sand deposits under the clay are important geological features, often exposed during mineral extraction, which contribute to our understanding of ice-age environmental change.

Some 2 per cent of the area is designated as the Dedham Vale Area of Outstanding Natural Beauty (AONB), which sits on the borders of Essex and Suffolk. The area was made famous worldwide through the paintings of the landscape artist John Constable. Many of the scenes that brought him inspiration two centuries ago can still be seen today, especially at Flatford and along the banks of the River Stour. This area, now known as 'Constable Country', is a popular visitor destination, particularly during the summer months.

The area's rich archaeology provides evidence of a long history of settlement and significant past wealth and importance, including Palaeolithic finds, Roman sites, medieval monasteries and castles, isolated moated farmsteads, barns and a number of large country houses. It is an area of notable medieval towns and villages, such as Lavenham, Cavendish and Thaxted, which support many vernacular buildings dating from the 13th to 17th centuries, when the wool and cloth trade brought considerable wealth to the area. Traditional settlements are characterised by organic street patterns, large churches – sometimes, as at Long Melford, overlooking village greens – and groups of colour-washed medieval houses with pegtile roofs interspersed with ones refronted with brick facades in Georgian or Victorian times. An intricate maze of narrow, winding lanes links settlements. Some 6.5 per cent of the area is urban, with most major settlements being located along the southern border, including Ipswich, Chelmsford and the new towns of Harlow and Stevenage. Major transport infrastructure includes the A14 and A12 and the M11, which links to Stansted Airport.

## Summary continued...

Semi-natural habitats of particular importance include sparsely scattered, small lowland meadows and ancient woodlands. These include Hatfield Forest and Bradfield Woods, which are important for rare species including the dormouse, nightingale and stag beetle, as well as being among the richest in the country for flowering plants such as bluebells, which often carpet the ground in spring. Parts of the river valley floors contain pasture and willow pollards, which contribute an uncommon pastoral quality. Mosaics of valley floor habitats such as grazing marsh, fen and wet woodland support European protected species including great crested newt, otter and pipistrelle bats, as well as the rare black poplar tree.

Farming, predominantly for arable crops, utilises 84 per cent of the land area, supported by the moderately fertile soils and equable climate. Recent changes in farming methods have had an impact on farmland habitats such as hedges and ponds, and once-common species of arable land such as tree sparrow, grey partridge, cornflower and brown hare have declined in numbers. Over recent years the uptake of agri-environment options for land management has increased the potential to restore much of the lost in-field wildlife of the area.

Click map to enlarge; click again to reduce.

## Statements of Environmental Opportunity

- **SEO 1:** Maintain and enhance the character of this gently undulating, rural landscape by maintaining agricultural productivity and encouraging sustainable land management practices that protect and enhance the landscape, geodiversity and biodiversity assets and benefit carbon storage and water quality, as well as the over-riding sense of place.
- **SEO 2:** Protect and enhance the area's ancient woodland cover, parkland trees, river valley plantations and ancient hedgerows, through the management of existing woods and the planting of new woods, hedgerows and hedgerow trees to benefit landscape character, habitat connectivity and a range of ecosystem services, including timber provision, the regulation of soil erosion and the strengthening of the sense of place and history.
- **SEO 3:** Enhance the slow-flowing, winding rivers and their pastoral valley flood plains that provide linkages through the landscape, including redundant sand and gravel extraction sites, for their ecological, historical and recreational importance. This will support the operation of natural processes and their contribution to biodiversity, geodiversity, soil quality, water availability, regulating water flow and the character of the area.
- **SEO 4:** Conserve and enhance the distinctive character of the Dedham Vale Area of Outstanding Natural Beauty with its much-visited 'Constable Country' and improve opportunities for people to enjoy and understand the distinctive assemblage of historic landscapes outside the AONB. Ensure that access and recreational resources are managed to be compatible with the tranquillity of the area and the special qualities of protected landscapes, while providing a valuable health, education and access resource.



The gently undulating rural landscape characterised by arable fields within a network of hedgerows, copses, fragmented woodlands and isolated farmsteads.

## Description

### Physical and functional links to other National Character Areas

The South Suffolk and North Essex Clayland National Character Area (NCA) shares a boundary with six other NCAs: Suffolk Coast and Heaths, South Norfolk and High Suffolk Claylands, The Brecks, East Anglian Chalk, Chilterns and the Northern Thames Basin. They all share a generally flat topography, with underlying bedrock geology of Late Cretaceous Chalk overlain by sand and gravel deposits as well as glacial tills. The underlying chalk aquifer supplies the population of East Anglia, functionally linking these areas.

To the north-east the landscape flows seamlessly into the flatter and more open South Norfolk and High Suffolk Claylands NCA, which forms part of the same boulder clay arable plateau. Intervisibility between the NCAs is varied due to the claylands' low, undulating nature. Transport links include the A140 to Norwich and the Great Eastern Main Line between London and Norwich.

To the north-west the NCA abuts the dry, open landscape of the Brecks. Views from the elevated plateau extend across the Brecks to 'the ship of the Fens', Ely Cathedral. In dry years the rivers in the Ely Ouse catchment supply water via the Ely Ouse to Essex Transfer Scheme to the headwaters of the Suffolk and Essex rivers, the Stour and the Pant/Blackwater. Water is then abstracted from the rivers to the reservoirs of Abberton and Hanningfield in the Northern Thames Basin NCA, to supply the increasing demand for potable water from south Essex and London.

To the west, the broad-scale character of the East Anglian Chalk NCA rises away from the claylands. Intervisibility is often framed by beech shelterbelts, although generally views are open and panoramic. The Wadlow Wind Farm,

north of Balsham, is a prominent feature across the NCAs' dividing boundary. The River Granta flows westwards from the claylands, forming the River Cam in Cambridge. The M11 and A10 dissect the western claylands, linking the East Anglian Chalk to the Northern Thames Basin, while in the north the A14 and the Ipswich to Cambridge rail line create functional links.

Links to the Northern Thames Basin NCA are created by the rivers Rib, Ash and Stort, which flow south along watercourses incised into heavy boulder clays, while to the south-east the rivers Colne, Blackwater, Brain, Ter and Chelmer flow from the clay plateau eastwards to the North Sea. Flood storage areas such as the Sible Hedingham lagoons ease flood risk further downstream in the Northern Thames Basin and Greater Thames Estuary NCAs. Views extend to the shallow wooded ridgeline that swings round in an arc from Tiptree to Epping Forest, enclosing the area.

In the east along the lower part of the Stour Valley, the Dedham Vale Area of Outstanding Natural Beauty (AONB) extends into the adjoining Suffolk Coast and Heaths and Northern Thames Basin NCAs. The River Gipping flows into the River Orwell at Ipswich, which straddles the boundary between the NCAs. The East Coast Main Line and the A14 and A12 trunk roads also create functional links.

### Distinct areas

- The lower half of the Stour Valley – the Dedham Vale.

## Key characteristics



Large, often ancient hedgerows link woods and copses to form wooded skylines, that are a key characteristic of the area.

- An undulating chalky boulder clay plateau is dissected by numerous river valleys, giving a topography of gentle slopes in the lower, wider valleys and steeper slopes in the narrower upper parts.
- Fragments of chalk give many of the soils a calcareous character, which also influences the character of the semi-natural vegetation cover.
- South-east-flowing streams and rivers drain the clay plateau. Watercourses wind slowly across flood plains, supporting wet, fen-type habitats; grazing marsh; and blocks of cricket-bat willows, poplars and old willow pollards. Navigation locks are present on some rivers.
- Lowland wood pasture and ancient woodlands support the dormouse and a rich diversity of flowering plants on the clay plateau. Large, often ancient hedgerows link woods and copses, forming wooded skylines.
- The agricultural landscape is predominantly arable with a wooded appearance. There is some pasture on the valley floors. Field patterns are irregular despite rationalisation, with much ancient countryside surviving. Field margins support corn bunting, cornflower and brown hare.
- Roman sites, medieval monasteries and castles and ancient woodlands contribute to a rich archaeology. Impressive churches, large barns, substantial country house estates and Second World War airfields dot the landscape, forming historical resources.

**Continued on next page...**



## Key characteristics continued...

- There is a dispersed settlement pattern of scattered farmsteads, parishes and small settlements around 'tyes' (commons) or strip greens and isolated hamlets. The NCA features a concentration of isolated moated farmsteads and numerous well-preserved medieval towns and large villages.
- Larger 20th-century development has taken place to the south and east around Chelmsford, Ipswich and the new towns of Harlow and Stevenage.
- Traditional timber-frame, often elaborate buildings with exposed timbers, colour-washed render, pargeting and steeply pitched roofs with pegtiles or long straw thatch. Sometimes they have been refronted with Georgian red brick or Victorian cream-coloured bricks ('Suffolk whites'). Clay lump is often used in cottages and farm buildings.
- Winding, narrow and sometimes sunken lanes are bounded by deep ditches, wide verges and strong hedgerows. Transport infrastructure includes the A14, A12, M11 and Stansted Airport.
- A strong network of public rights of way provides access to the area's archetypal lowland English countryside.

## South Suffolk and North Essex Clayland today

The South Suffolk and North Essex Clayland's chalky, boulder clay plateau is dissected by small-scale undulating river valley topography. Views from the plateau, which rises to 161 m above sea level, are often extensive, with large, open skies. The winding river valleys are smaller in scale, with an intimate sense of enclosure, particularly in their upper reaches.



Carpets of bluebells add spring colour to the ancient woodlands that are found across the plateau.

The area is underlain by Late Cretaceous Chalk that is exposed in redundant chalk quarries and pits that feature throughout the area, such as at Little Blakenham and Claydon. In places, London Clay and other Palaeogene deposits overlie the Chalk. Sand and gravel deposits are often exposed on the sides of the many deeply incised river valleys, particularly in the upper reaches of the Stour and its tributaries, as well as flanking the valley flood plains in the form of river terraces. They are often exploited by quarrying, which exposes important geological sequences. The overlying glacial till gives rise to heavy clay soils full of flints. The Chalk strongly influences the calcareous nature of many of the area's soils, and consequently the semi-natural vegetation character.

Rivers including the Colne, Blackwater, Brain, Ter, Chelmer and Stour all have their headwaters on the clay plateau. Some streams are so close together that the interfluvium is no more than a narrow ridge in many places. As they flow slowly south-east towards the North Sea, their gently winding courses, often lined with old willow pollards, form lush riparian corridors.

The area's open yet wooded character is sufficiently endowed with copses and small woods to have wooded horizons, which give a large, distantly wooded character to the landscape – an impression that is sometimes missing at close quarters due to the loss of hedges and hedgerow trees. Larger woods are typically confined to the north and south of the area. Within the valleys, the main impression is of the blocks of willows and poplars planted on the valley floor and sides. Hedgerow trees are typically young elm (with hornbeam and field maple) in Essex. In Suffolk, oaks and ash, with some cherry and holly, give a more treed and hedged character. Many examples of ancient woodland survive, providing a strong sense of history – especially those with small-leaved limes. They include the National Nature Reserves of Hatfield Forest and Bradfield Woods; the latter is a working wood that has been under continuous traditional coppice management since at least 1252.



It is ancient countryside, and appears in many areas to have undergone little 20th-century rationalisation to excessively large fields. Close-grained irregular medieval enclosures, bounded by ancient, species-rich high hedgerows, are predominant in the north and east and in the numerous narrow river valleys, whereas later, larger fields are more characteristic in the south and west, where post-medieval Parliamentary enclosure has occurred. Farming utilises 84 per cent of the land area. It is primarily agricultural, except on parts of the river valley floors, where pasture contributes to a pastoral quality that is uncommon elsewhere in East Anglia. The moderately fertile soils along with an equable climate support profitable arable crops including, oilseed rape and sugar beet. Outdoor pig units are typical on the lighter soils in the north-east, while sheep with some cattle graze the valley pastures and wood pasture of estates such as Ickworth. Fruit farms and orchards are also found on the lighter land.

Semi-natural habitats of particular importance include sparsely scattered small lowland meadows and ancient woodland remnants that are among the richest in the country for flowering plants, including pignut, oxlip, moschatel and orchids such as the greater butterfly orchid (a Suffolk rarity) and the nationally scarce bird's-nest orchid. Carpets of bluebells in the spring are a strong characteristic of the woodlands. These woodlands are also important for the dormouse and birds such as nightingale, blackcap and willow warbler. The mosaic of valley floor habitats (for example grazing marsh, fen and wet woodland) support European protected species including great crested newt, otter and pipistrelle bats, as well as the rare black poplar tree, which can still be found along the Suffolk–Essex border.

The area's rich archaeology provides evidence of a long history of settlement and significant past wealth and importance, including the stone tools evident of a Palaeolithic presence, Roman sites, ruined medieval monasteries, Norman castles (for example, Hedingham Castle), medieval moated farmstead sites and a rich heritage of timber-frame barns. There are a few substantial houses and estates, such as Audley End, with its landscaped parklands designed by Lancelot

'Capability' Brown, Ickworth, Kentwell, Melford Hall, Chadacre and Shrubland Hall; the Repton-enhanced landscape and Italianate gardens of the latter were designed by Charles Barry. Relics of the once-numerous Second World War airfield sites are also dotted across the landscape, underlining the NCA's strategic wartime importance. Pillboxes of the 1940 military 'stop lines' also snake along this countryside as a further reminder of this tense wartime period.



**A countryside of close-grained irregular Medieval enclosures, bounded by ancient, species-rich high hedgerows and grass margins.**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Recreation</b>	<p>Public rights of way network</p> <p>Stour Valley Path</p> <p>Essex Way and the Flich Way long distance footpaths</p> <p>Dedham Vale AONB</p> <p>Rivers</p> <p>Historic features</p> <p>Colne Valley Railway</p> <p>The Museum of East Anglian Life</p>	<p>The NCA attracts a diversity of visitors such as local ramblers, cyclists, artists, anglers, bird-watchers, day trippers and tourists.</p> <p>Recreation is supported by the gentle topography of the landscape and 6,375 km of public rights of way, although only 1 per cent (3,628 ha) of the NCA is classified as being publically accessible.</p> <p>The AONB allows easy access to the working farmed countryside. It provides opportunities to see rare wildlife such as bats, water voles, otters, bluebells and various orchids as well other wildlife such as badgers and foxes and many species of farmland bird, butterflies and invertebrates, all of which enhance the visitor experience.</p> <p>Rivers provide recreational resources for low impact activities such as coarse fishing, while providing green infrastructure links from urban to rural areas.</p> <p>Ancient woodlands including Hatfield Forest NNR and Bradfield Woods are open to the public allowing people to experience these ancient landscape features.</p> <p>Large estates and country houses that are open to the public.</p>	Regional	<p>Recreation in the area is on the increase as the population of the south east increases. Increased numbers of people visiting the AONB and other popular locations such as the historic town of Lavenham can cause adverse impacts to local residents and increasing pressure on local resources.</p> <p>Increasing recreational access to local areas, particularly in the summer months, can impact on tranquillity.</p> <p>Increasing the potential recreation opportunities close to areas of growth may have the potential to relieve recreational pressure at the AONB sites.</p> <p>An increase in horse riding has lead to a slow growth in equestrian grazing leading to the development of some 'pony paddocks' that can bring intrusive infrastructure and little biodiversity gain.</p>	<p>Support the development of a strategy for public access management particularly within the AONB.</p> <p>Improve people's understanding of landscapes through educational access, providing interpretation of local features at key sites.</p> <p>Support well planned green infrastructure to provide sustainable access routes.</p> <p>Increase people's engagement with the natural environment to further benefit physical and mental health, by developing improved public access.</p>	<p><b>Recreation</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p> <p><b>Tranquillity</b></p> <p><b>Regulating water quality</b></p> <p><b>Regulating soil erosion</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Water availability</b></p>



The strong sense of history is reinforced by the dispersed settlement pattern of scattered farmsteads and small villages near the top of the valley slopes. They are often located around 'tyes' (commons) or strip greens, with isolated hamlets linked by an intricate maze of narrow, often sunken lanes with wide verges, deep ditches and strong hedgerows. Medieval towns and villages such as Lavenham, Cavendish and Thaxted retain a strong sense of character, with their idiosyncratic street patterns and the juxtaposition of a large, ornate church with a village green and groups of colour-washed medieval houses with their steeply pitched long straw thatch or pegtile roofs. Timber is the main traditional building material of the area, often with a pink-buff Georgian brick-facing to an older timber frame. Ornamental exterior plasterwork or pargeting is also characteristic, with good examples to be seen in Clare, Ipswich and Saffron Walden.

Much of the rural part of the NCA has a residual tranquillity, with much of the central part remote from main roads (for example around Great Bardfield, Thaxted and Cavendish; in the villages south of Bury St Edmunds; or even further south in Essex around Pleshey, north of Chelmsford). The sense of remoteness is enhanced by the woody nature of the plateau and the deep incision of the valleys. However, tranquillity is reduced close to the main transport infrastructure (for example the A12, the A120, the A14, the M11 and the airport at Stansted). The major towns (Chelmsford, Ipswich, Stowmarket, Bury St Edmunds, Bishop's Stortford, Harlow and Stevenage) make the boundaries of the NCA less tranquil than its centre.

The area's rural character makes it popular with tourists and day-trippers, particularly the Stour Valley, which sits on the Suffolk–Essex border. The variable topography of rolling hills and gentle valleys and the combination of features – trees, river bank willows, flood plain meadow, ancient lanes, traditional villages and farm buildings and the meandering river – produce a classic English lowland character that is quite distinct from the rest of Suffolk and Essex. This exceptionally picturesque landscape was made famous worldwide through the

paintings of the landscape artist John Constable (1776–1837) and the lower half of the valley is designated as the Dedham Vale AONB. Many of the scenes that brought John Constable inspiration can still be seen today, especially at Flatford and along the banks of the River Stour.



The medieval town of Cavendish with its traditional buildings including the pink almshouse cottages and St Mary's Church set around the central green.

## The landscape through time

The underlying bedrock of the South Suffolk and North Essex Clayland is Cretaceous 'Middle' and 'Upper' Chalk, deposited as a pure limestone in tropical seas between 100 and 65 million years ago. Another mineral, silica, was left behind at this time and formed nodules of hard flint within the Chalk.

Sands and clays of the Lambeth Group and London Clay were deposited over the Chalk in the Palaeocene and Eocene Periods that followed. They have been exposed by river erosion in the lower slopes and floors of the major valleys such as the Chelmer and Stour, where the impermeable London Clay gives rise locally to many springs.

The ancestral River Thames flowed north-eastwards across the area about a million years ago, depositing a distinctive suite of gravels known as the Kesgrave Formation. The course of this pre-diversion Thames is picked up at several Sites of Special Scientific Interest (SSSI), such as Downfield Pit SSSI, and contributes locally to sandy soils.

The Anglian glaciation around 450,000 years ago covered the area with thick ice sheets and deposited vast amounts of chalk and clay on the land as glacial till (boulder clay) and associated outwash sands and gravels; these capped the bedrock. These unconsolidated glacial deposits made erosion by rivers 'easy', allowing well-developed valleys to form, as well as river terraces in them. As a result, many of today's rivers and streams appear too small for their valleys. Where exposed, the sand and gravel deposits associated with the rivers have yielded significant evidence of Pleistocene vertebrates and Palaeolithic human life, as at Brundon.

The earliest occupation of this NCA is likely to pre-date the Anglian glaciations, with occasional finds of stone tools in deposits beneath the till, as well as well-documented sites being found in neighbouring NCAs. Later settlement focused on the river valleys, which were extensively cleared and occupied in the prehistoric period. The muddy ice-laid material on the plateau tops made these areas very difficult to farm, leading to a history of thick tree cover on the higher ground. Archaeological remains associated with prehistoric and Roman settlement sites are visible as cropmarks and earthworks, such as the Bartlow Hills Roman tumuli (burial mounds). Roman occupation from 43 AD lasted for some 350 years and contributed trading settlements, such as Chelmsford, and roads that still provide the backbone of today's transport links, for example Ermine Street, which now forms part of the A10.

Wealth within the area developed during the Anglo-Saxon period. This is evidenced by the establishment of Ipswich as a major early trading port and by the important 'princely' burial site at Broomfield to the north of Chelmsford.

The existing pattern of towns and villages was laid down by the time of the Domesday Book in 1086. Bury St Edmunds' late 11th-century gridiron street pattern is an advanced example of town planning from this period. From the time of the Norman Conquest until the 19th-century spread of London, the north-western part of Essex was the most densely populated part of the county.

Early medieval enclosure divided up the land into mostly small fields with wide borders that were grazed or cut for hay crops. There were also some much larger fields, particularly on demesnes (manorial land). Large estates were unusual, as small freeholders dominated. Where the land was too wet and heavy to farm, woodland was not cleared but instead managed for timber, as were hedges.





The half-timbered Guildhall, Dick Turpin cottage and the magnificent Parish Church in Thaxted, are typical of the local vernacular found within the 'wool towns'.

Today's ancient deciduous woodlands provide a historic landscape record from this time. The unique Hatfield Forest, established in the late 11th century and the only remaining intact Royal Hunting Forest, is a prime example. It is thought to be the largest area in the east of England never to have been ploughed, and so provides a direct link back to the wildwood that was once extensive across the whole of the area. The river valleys contained the best soils and the low-lying valley bottoms supported rich pasture, while mixed arable farming dominated the valley sides. Where the heavy, wet land was ploughed it was mainly used for fodder crops such as cabbages and beans. From the 17th century, turnips were commonly grown on the slightly drier land, and a dairy-based industry remained important up until the end of the 18th century. Settlement was normally dispersed about the parishes, with scattered moated farmsteads and small villages around open 'tyes' (commons) or strip greens, which remained open until the 19th century.

The densely settled pattern intensified with the development of the wool and cloth trade from the 13th to 17th centuries, which had the dominant historical impact on this area. The wealth generated by the industry is manifested in the timber-frame houses clustered in the towns and villages (for example, Long Melford, Lavenham, Thaxted, Halstead and Coggeshall), and in the ostentatious but magnificent churches such as Thaxted Church, with its 181-foot (c. 50-metre) spire. Sudbury was a centre for weaving and silk, while Thaxted prospered from its cutlery trade and Saffron Walden enjoyed the rewards of both cloth and locally produced saffron (used as a spice, a medicine and to dye cloth) until the 19th century, when artificial substitutes destroyed this latter trade. Towns such as Braintree, Great Dunmow, Halstead and Coggeshall were 'bays and says' towns, so called because of their production of baize or serge-like cloths from the 16th century onwards. Between the 15th and early 17th centuries this was the wealthiest part of England. The peak of prosperity was 1450–1550, with a minor boom in the 17th century. The woollen/cloth trade declined in the 17th century to focus on northern and western England, and development in the area stopped. There was little post-17th century architecture until the advent of 20th-century housing and commercial estates.

Most of the area was already enclosed into hedged fields by the medieval period, but westward of a line extending southwards from Bury St Edmunds to Haverhill, Saffron Walden, Bishop's Stortford and Harlow (and to a limited extent in the Stour Valley) there were considerable amounts of open common fields that were the subject of Parliamentary enclosure in the 18th and 19th centuries. At the beginning of the 18th century the golden age of local agriculture commenced. The average landholding was probably 60 ha (150 acres), but increased grain prices, improved drainage techniques, mechanisation and the influence of the proximity of the London market spread throughout the area and resulted in the ploughing-up of pasture and the reduction in dairies. By late Georgian times, increases in wealth saw the building of grand houses such as Ickworth and Shrubland Hall. River courses were modified and opened up to traffic to help transport food and goods from Suffolk to meet the demand in London. The Stour Navigation (between Sudbury and Manningtree) opened in 1713, the Stort Navigation opened in 1769 and the Stowmarket Navigation, along the Gipping, opened in 1793. In the 1840s the railway arrived, and with it a large decline in water-borne trade. The historic industrial influence of the river navigations is now mostly lost amid today's rural landscape.

The agricultural depressions of the mid- and late 19th century and the interwar period of the 20th century took their toll on agriculture here as elsewhere. There was a drift of labour to the capital, balanced during the last century by the southern drift of Scottish farmers who were prepared to take on derelict farms.

The onset of the Second World War saw military 'stop lines' drawn across the rural countryside, with pillboxes at key locations. Numerous airfields were constructed across the open plateau, such as Wattisham, Sudbury, Stradishall and Castle Camps.

Since 1945 this region has been well farmed, producing a wide range of food crops, often for the London, and latterly the European, market. Agricultural improvements resulted in changes to the structure of the countryside, which was defined by a dense network of fields, meadows, hedges and woods. Although rationalisation was not as extreme as in other areas of East Anglia, it resulted in losses of semi-natural vegetation, especially lowland grassland, ancient woodland and hedgerows. Although many villages and towns have accommodated significant post-war housing, the historic cores remain intact; little local industry has developed, and the character of these towns and villages has ensured their preservation.



Although not as extensive as in other parts of East Anglia, the removal of field boundary hedgerows since 1945 has enlarged many fields, as seen to the south-west of Haverhill.



After the Second World War, the Abercrombie Plan called for the establishment of a ring of new towns around London to ease overcrowding in the capital and the surrounding areas due to the mass devastation caused by the bombing during the Blitz. Stevenage was designated the first New Town on 1 August 1946, followed closely by Harlow. Twentieth-century development in Chelmsford followed the sale of land for railways, and the broad, shallow Chelmer Valley is now obliterated by recent development. The north-western part of Essex has largely avoided the massive 20th-century outward migration from London, which is a pronounced feature of the London Clay to the south. This is largely due to the effectiveness of Green Belt policy in preventing the coalescence of towns. South Suffolk has seen very little recent development, except significant expansions of both Sudbury and Ipswich and around Stowmarket, which, being on the main line railway line, now has some characteristics of a commuter town.

The lower half of the Stour Valley with its preserved, archetypal lowland English countryside, coupled with attractive vernacular buildings, was designated as the Dedham Vale AONB in 1970. From the 1970s onwards, Dutch elm disease had a profound effect by removing one of the most common hedgerow and field trees from the landscape. The peripheries of the area continue to change, with increasing pressure for housing, infrastructure and industrial growth associated with, for instance, the Haven Gateway and other strategic growth points such as Chelmsford and Stevenage.

## Ecosystem services

The South Suffolk and North Essex Clayland NCA provides a wide range of benefits to society. Each is derived from the attributes and processes (both natural and cultural features) within the area. These benefits are known collectively as 'ecosystem services'. The predominant services are summarised below. Further information on ecosystem services provided in the South Suffolk and North Essex Clayland NCA is contained in the 'Analysis' section of this document.

### Provisioning services (food, fibre and water supply)

- **Food provision:** Some 84 per cent of the land area is farmed, with the widespread chalky clay soils (mostly Grades 2 and 3) supporting predominantly arable farming with large areas of cereals and oilseed rape. The area also provides dairy products and sugar beet, with peas, fruit farms and market gardening on areas of lighter land. Livestock farming includes pigs, poultry, sheep and lowland cattle. Value-added food producers (for example, organic producers, pork butchers and brewers) cluster around urban areas such as Bury St Edmunds and Ipswich<sup>4</sup>, as do several 'pick your own' farms.
- **Water availability:** The major underground chalk aquifer is overlain by London Clay, which confines the chalk aquifer, restricting the flow of groundwater in and out. These are overlain by locally important sand and gravel minor aquifers. Groundwater resources within the chalk aquifer are currently committed, and new groundwater abstraction applications are only considered from drift deposits. Groundwater and surface water river abstractions are primarily for public water supply for the major areas of population (for example Ipswich, Chelmsford, Braintree, Bury St Edmunds and the Harlow/Stansted corridor). Agricultural use for spray irrigation to support food production is also a high user. The highest priority catchments in terms of water abstraction control include the Stour, the Colne and the Gipping. During low flow conditions, the rivers Stour and

<sup>4</sup> URL: [REDACTED]

Pant/Blackwater can have their flows increased through the Ely Ouse to Essex Transfer Scheme. This maintains flows at a level that is high enough to protect the natural ecology of the system without restricting abstraction for public water supply<sup>5</sup>. The River Stour is further supported by the Stour Augmentation Groundwater Scheme. The requirement for these schemes highlights the scarcity of water in the area, with Essex being a net importer of water to meet the needs of its population.

- **Genetic diversity:** The Large Black Pig, the rarest historic pig breed and one of the oldest in Britain, is associated with the area. It is considered by some to be the fourth member of the Suffolk Trinity (Suffolk Punch horse, Black Faced Sheep and Red Poll cattle), all of which can be found in the area. Herds of Red Poll cattle graze Hatfield Forest, with sheep (Speckled Faced Beulah, Wiltshire Horn and Manx Loaghtan) used as 'conservation grazers'. Rare breeds are kept in the north-east at the Baylham House Rare Breeds Farm. Breeds include Norfolk Horn, Greyface Dartmoor, Balwen, Llanwenog, Herdwick and Ouessant sheep; White Park cattle; Pygmy and Golden Guernsey goats; and Middle White and Berkshire pigs. Remnant traditional orchards provide a genetic stock of old local fruit varieties including Red Miller's Seedling, St Edmunds Russet, Honey Pippin, Clopton Red, Maxton, Maclean's Favourite, Catherine, Suffolk Styles Pippin and Sturmer Pippin apples, and Coe's Golden Drop gage.

#### Regulating services (water purification, air quality maintenance and climate regulation)

- **Regulating water quality:** Water quality is important for biodiversity, agriculture and public drinking water. Both groundwater and surface water quality is critically dependent on the land management in the NCA. Woodlands, hedgerows, grasslands, riparian vegetation and the filtering qualities of the underground sand and gravel and chalk deposits all contribute to the service.

<sup>5</sup> *The Combined Essex Catchment Abstraction Management Strategy*, Environment Agency (February 2007)

The chemical status of groundwater is, however, generally good, as is that of the surface waters. Only 33 per cent of surface waters achieve at least good biological status. The ecological status of the rivers is generally moderate, although the status is poor in the Gipping, Cam, Blackwater, Chelmer, Ter and Quin<sup>6</sup>. The highest priority catchments in terms of water pollution control are the Stour, the Colne and the Gipping. The Little Ouse (Thetford Ouse) and the Gipping and Orwell catchments are priority catchments under the Catchment Sensitive Farming Project.

- **Regulating water flow:** A large number of rivers drain the clay plateau, their natural flows increased by flood plain drainage and increasing amounts of non-permeable surfacing within settlements. During low flow conditions, the rivers Stour and Pant/Blackwater can have their flows recharged through the Ely Ouse to Essex Transfer Scheme. The River Stour is further supported by the Stour Augmentation Groundwater Scheme. Woodlands, hedgerows, flood plain wet fen-type habitats, grazing marsh and riparian vegetation all contribute to this service by holding water within the system.

Chelmsford is currently at a high risk from flooding, although some protection is provided by its ageing flood alleviation scheme. Braintree, Great Dunmow and Bocking are at risk from the rivers Blackwater and Chelmer. The Mid Colne and River Stour present a flood risk in villages including Bures, Bures St Mary, White Colne and Chappel. A combination of flood banks, a bypass channel on the River Stour and a flood storage area upstream of Halstead has reduced the flood risk<sup>7</sup>. Meldham Washlands flood alleviation scheme on the River Stour provides a high standard of protection to Haverhill, and the creation of flood storage lagoons as at Sible Hedingham eases flood risk further downstream. The River Gipping has the potential to flood parts of western Ipswich, although a flood alleviation scheme at Stowmarket helps to reduce the risk both in Stowmarket and Ipswich<sup>8</sup>.

<sup>6</sup> *River Basin Management Plan, Anglian River Basin District*, Environment Agency (2009)

<sup>7</sup> *North Essex Catchment Flood Management Plan Summary Report*, Environment Agency (December 2009) <sup>8</sup> *East Suffolk Catchment Abstraction Management Plan Summary Report*, Environment Agency (December 2009)



## Cultural services (inspiration, education and wellbeing)

- **Sense of place/inspiration:** A strong sense of place is provided by the underlying Chalk geology that influences the calcareous nature of many of the soils and much of the vegetation character. The many steep-sided, small-scale, intimate river valleys, along with their mixed land use patterns, contribute to the archetypal English countryside character. Small woodlands linked by large hedgerows along ridgelines create a wooded character. Large, ornate churches, timber-frame buildings often rendered and colour-washed, with pegtiles or long straw thatch, either as scattered farmsteads or as whole streets in well-preserved medieval villages or towns (such as Kersey and Lavenham), also contribute to the strong sense of place.

Feelings of inspiration are associated with the strong historic character of the medieval settlements, while the surrounding landscape with its wide views, open skies and unspoilt rural tranquillity has provided inspiration for many artists, including John Constable and Thomas Gainsborough and, more recently, Cedric Morris and John Nash.

- **Sense of history:** The many historical assets, clearly visible throughout this landscape, provide a strong sense both of history and of how the landscape has developed over time. These include Roman roads, medieval villages such as the Rodings, Norman castles, ruined abbeys and ancient woodlands, including the unique Hatfield Forest. The magnificent 'wool' churches (as at Long Melford and Lavenham) and country houses with historic parklands (such as Audley End, Kentwell Hall and Ickworth) illustrate past wealth.

Some rivers, including the Gipping, Stour and Stort, have an industrial past revealed by historic navigation locks and water mills. The area's wartime importance remains visible, with numerous Second World War airstrips, some of which are still used for flying while others are just remnants alongside hangars and pillboxes. Distinctive historic features include close-grained medieval enclosures, medieval moated farmsteads, villages around 'tyes' (commons) or strip greens, historical barns, and small medieval towns such as Lavenham, Finchingfield, Cavendish and Thaxted, which contain many Grade I Listed Buildings in the vernacular style. The Dedham Vale AONB, a preserved archetypal lowland pastoral English countryside, with its strong association with John Constable, and the 20th-century new towns of the south-west, such as Harlow, provide further, strongly contrasting historical elements.

- **Recreation:** The NCA offers a network of rights of way totalling 6,375 km, as well as a small amount of open access land covering 3,628 ha. Large numbers of tourists and day-trippers are attracted to the 'honeypot' destinations of the Dedham Vale and the picturesque 'wool' towns such as Lavenham, together with popular access routes such as the Stour Valley Path, the Stort Valley Way, the Essex Way and the Flitch Way. Key green space and heritage venues are popular all year round with visitors and locals, and include Hatfield Forest, which has many miles of walks; the Colne Valley heritage railway; Stowmarket's Museum of East Anglian Life; Hedingham Castle; Audley End in Uttlesford; and Ickworth House near Bury St Edmunds. Water recreation opportunities are available on the River Stour Navigation and Chelmer Navigation reservoirs and are popular with locals.

## Statements of Environmental Opportunity

**SEO 1: Maintain and enhance the character of this gently undulating, rural landscape by maintaining agricultural productivity and encouraging sustainable land management practices that protect and enhance the landscape, geodiversity and biodiversity assets and networks to benefit geodiversity, biodiversity, carbon storage and water quality, as well as the over-riding sense of place.**

**For example, by:**

- Encouraging sustainable farming practices and the diversification of cropping and livestock to support the continued production of food supplied to local and national markets and the financial security of rural businesses.
- Working with farmers and landowners to create ecological networks through the farmed landscape to benefit biodiversity (for example by increasing farmland bird populations) and to enhance ecosystem services, such as by intercepting surface water to improve water quality and by providing more habitats for pollinator and pest-regulating species.
- Restoring important characteristic ancient field boundary patterns and parish boundaries with substantial hedges, together with the historical pattern of farmsteads (many with 17th-century or earlier buildings), through recording, promoting, understanding and recognising their historic significance.
- Encouraging farmers to protect watercourses from water quality deterioration, reducing diffuse pollution by encouraging soil management improvements and the uptake of beneficial agri-environment schemes and options. Ensure compliance with regulations on nitrate vulnerable zones to manage fertiliser inputs.
- Encouraging the reversion from arable to permanent grassland and the creation of grass margins in arable fields on valley sides, to help reduce soil erosion and sedimentation of watercourses, especially within the priority catchments.
- Enhancing soil condition through good soil management techniques that reduce erosion, improve productivity and have a positive effect on water quality. This can be achieved through reducing cultivation and soil compaction, creating grass margins in arable fields and restoring boundary hedgerows, which will also increase habitats for pollinators and pest-regulating species.
- Facilitating the ability of viable agricultural businesses to undertake more tailored agricultural and conservation management, incorporating uncultivated margins to arable fields in order to support rare arable weeds and farmland bird species (for example yellowhammer, grey partridge and tree sparrow).
- Ensuring that land management practices maintain and, where necessary, improve the condition of the Sites of Special Scientific Interest.
- Working in partnership with farmers to encourage the appropriate design and sensitive siting of new on-farm water storage, which will help to reduce the impact of water abstraction and enhance biodiversity and landscape character.
- Ensuring that advice is provided to support and enable sustainable farming practices to be carried out efficiently, including follow-up monitoring and advice, to help inform future land management decisions.



**SEO 2: Protect and enhance the area's ancient woodland cover, parkland trees, river valley plantations and ancient hedgerows, through the management of existing woods and the planting of new woods, hedgerows and hedgerow trees to benefit landscape character, habitat connectivity and a range of ecosystem services, including timber provision, the regulation of soil erosion and the strengthening of the sense of place and history.**

**For example, by:**

- Seeking opportunities to restore and enhance ancient woodland habitats, particularly using techniques such as coppicing, to enhance landscape character and biodiversity, especially assemblages of flora, invertebrates and woodland birds.
- Encouraging the reinstatement of active management of existing farm woodlands where they have been neglected, re-introducing sustainable traditional management techniques such as selective felling, pollarding and coppicing, to strengthen the historic landscape character and support biodiversity. Where appropriate, exploit commercial opportunities for resulting wood fuel.
- Encouraging local businesses to increase appropriate-scale generation of heat, utilising woody biomass for woodchip boilers, where it is sustainable to do so. This will in turn bring further opportunities for improved woodland management, while being mindful of locally valued landscape characteristics, habitats and species.
- Encouraging the planting of new woodlands on former woodland sites or adjacent to existing sites using local native species, where this results in enhanced ecological connectivity and benefit to the traditional wooded appearance and character.
- Encouraging communities and schools to become involved in creating, conserving and enhancing local woods and orchards, by working with partners to promote volunteering opportunities.

**Continued on next page...**



**Conserving historic parklands, with their important veteran trees with ancient woodland habitats is particularly important for saproxylic species and hole-nesting birds.**

**SEO 2: Protect and enhance the area's ancient woodland cover, parkland trees, river valley plantations and ancient hedgerows, through the management of existing woods and the planting of new woods, hedgerows and hedgerow trees to benefit landscape character, habitat connectivity and a range of ecosystem services, including timber provision, the regulation of soil erosion and the strengthening of the sense of place and history.**

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- Increasing poplar and willow plantations where appropriate and where there is no conflict with the historic landscape; that is, particularly along the River Blackwater between Witham and Kelvedon. This will enhance woodland character.
- Conserving historic parklands, with their important veteran trees (for example those at Ickworth), in particular focusing on the continuity of the mature and veteran tree resource in the parklands and in the surrounding landscape.
- Restoring traditional orchards, once a feature of many settlements, which contribute to the area's sense of place and genetic diversity.
- Conserving, managing and replanting hedgerows, especially those that are ancient and species rich, in a manner consistent with the historical patterns, particularly in areas that will help to regulate soil erosion.
- Encouraging the planting of characteristic hedgerow trees from existing hedgerow stocks; that is, oak in Suffolk and field maple and hornbeam in Essex. This will enhance landscape diversity and ecosystem services, including carbon storage. It will also help to counteract the threats to landscape character and biodiversity from tree diseases such as ash die-back.
- Protecting ancient hedgerow pollards, which are an important habitat for saproxylic beetles and hole nesting birds.
- Ensuring that new hedgerow planting on the plateau does not block important views and overly enclose the landscape. Planting characteristic species mixes will support biodiversity and landscape character and should include hawthorn, blackthorn, hazel, field maple, dogwood, spindle and small-leaved lime (derived from woodland).
- Extending and linking woodland sites, including orchards, through the expansion and enhancement of semi-natural linear features such as hedgebanks, streams, sunken hedged lanes, grass verges and farm woodlands, enhancing biodiversity and landscape character.



**SEO 3: Enhance the slow-flowing, winding rivers and their pastoral valley flood plains that provide linkages through the landscape, including redundant sand and gravel extraction sites, for their ecological, historical and recreational importance. This will support the operation of natural processes and their contribution to biodiversity, geodiversity, soil quality, water availability and regulating water flow and their function in contributing to the character of the area.**

**For example, by:**

- Working with watercourses to support the operation of natural processes to help reduce bank erosion and improve water quality.
- Conserving and managing the range of riverine and wetland habitats and landscapes, incorporating uncultivated margins and established habitat to protect watercourses in order to support rare species such as otters.
- Working with landowners to protect, enhance and reinstate fen-type flood plain habitats and to maximise opportunities to expand and link these habitats and their connections to rivers for breeding waders (for example, lapwing and snipe) and overwintering wildfowl. These habitats also make an important contribution to the landscape character.
- Restoring, repairing and enhancing river valley grasslands (where appropriate), supporting and reinstating grazing regimes. Where possible, manage livestock access to rivers and streams to prevent bank damage and increased sedimentation in the priority catchments of the Stour, Colne, Gipping, Cam and Stort.
- Protecting the archaeology and history of human settlement in the flood plain areas, by encouraging appropriate non-intensive land management and reinstating permanent pasture and grazing marsh habitats.
- Managing and enhancing the river flood plains for their flood storage capacity and identifying areas where bank and channel management can be altered to improve natural river profiles and connection with the flood plain, supporting the operation of natural processes.
- Managing extraction of the sand and gravel resource within the flood plains to minimise damage to existing habitats, geodiversity features and archaeological sites.
- Conserving and enhancing the network of geological sites that contribute to the understanding of the area's geology, in particular the disused quarries and pits.
- Continuing to restore mineral extraction sites to a variety of wetland habitats, for their multiple benefits for nature conservation, recreation and landscape interests.
- Working in partnership to reduce threats posed by non-native species' colonisation of the open water and riverine habitats.

**SEO 4: Conserve and enhance the distinctive character of the Dedham Vale Area of Outstanding Natural Beauty with its much-visited 'Constable Country' and improve opportunities for people to enjoy and understand the distinctive assemblage of historic landscapes outside the AONB. Ensure that access and recreational resources are managed to be compatible with the tranquillity of the area and the special qualities of protected landscapes, while providing a valuable health, education and access resource.**

**For example, by:**

- Working with the AONB Management Plan and using the special qualities, elements and features of the Dedham Vale AONB to plan landscape restoration, creation and enhancement activities to improve public enjoyment and understanding of the landscape.
- Exploring working with partners and organisations that support volunteering in the natural environment, which provides opportunities for people to increase their knowledge and understanding of the local area, while also benefiting habitats and species.
- Encouraging local schools and community groups to become involved in projects and other educational opportunities to develop a better understanding of their natural and historical environment and help to preserve it for the future.
- Creating access opportunities with consideration to minimising the risk of damage to landforms from recreation, particularly in the valleys, and promoting public appreciation of the geological resource by local communities and visitors.
- Managing and further enhancing the access and recreation opportunities, which centre on enjoyment of the tranquil and deeply rural countryside via the network of quiet lanes, villages, footpaths, bridleways and watercourses, to facilitate and encourage access to the wider countryside for all users.

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The village of Kersey, which although outside of the Dedham Vale AONB, is a popular visitor destination.



**SEO 4: Conserve and enhance the distinctive character of the Dedham Vale Area of Outstanding Natural Beauty with its much-visited 'Constable Country' and improve opportunities for people to enjoy and understand the distinctive assemblage of historic landscapes outside the AONB. Ensure that access and recreational resources are managed to be compatible with the tranquillity of the area and the special qualities of protected landscapes, while providing a valuable health, education and access resource.**

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- Promoting access to, interpretation of and understanding of less well-known sites and features to accommodate and diffuse tourism. This will help to maintain existing levels of tranquillity and manage landscape character pressures, especially in the AONB.
- Enhancing existing sustainable networks and providing links to growth areas and the wider countryside to help to link people with places.
- Enhancing and promoting the access network within, and connecting to, river corridors, for biodiversity, geodiversity, recreation and health benefits.
- Promoting links between geological sites, archaeological evidence and the biological interest of these areas, to achieve wider public understanding and enjoyment.
- Promoting sustainable tourism, such as access to visitor attractions via green infrastructure networks, including cycling and walking (for example, the Stour Valley Path and the Essex Way) and other sustainable transport options, to improve health and wellbeing and enjoyment of the environment, while supporting the local economy.
- Managing visitor pressures at popular and sensitive sites by investing in high-quality infrastructure and interpretation. Ensure that new infrastructure meets the different needs and levels of use of a range of visitors (for example, local communities, recreational day visitors and tourists) without being the cause of damage to or degradation of natural assets.

## Additional Opportunity

**1: Encourage measures that lead to the enhancement of existing historic settlements and sites of archaeological interest and the design and location of new developments and infrastructure. Provide wider associated social and cultural benefits through the provision and management of high-quality green infrastructure networks.**

**For example, by:**

- Conserving the historic environment and key features of 'ancient countryside' such as timber-frame houses, moated farmsteads, historic churches, barns, castles and enclosure patterns, together with sites of archaeological interest.
- Within urban areas creating new multifunctional landscapes and habitats and extending at appropriate scales existing networks that are in character with the area and contribute to biodiversity through green infrastructure planning.
- Working with partners to ensure that water resources and flood risk management issues within areas of settlement can be addressed in a sustainable way, to accommodate future planned growth.
- Conserving and appropriately managing the area's sense of place within the built environment and using this understanding, and the area's traditional settlement patterns, to plan for and inspire new development, particularly around Ipswich, Chelmsford, Harlow and Stevenage.
- Conserving traditional building features that are distinctive to the area, including pargeting, straw thatch, flint-knapped churches, weatherboarded post windmills and the traditional riverside features such as water mills, which have a strong visual impact in the landscape.
- Ensuring that high-quality green infrastructure is considered in all new-build projects, encouraging developers and planners to consider this aspect at the outset of scheme design with the aim of promoting space for wildlife and outdoor recreation.
- Promoting the use of traditional building materials in building restoration or new development where this would be appropriate, to enhance the local character (for example, exposed timbers, colour-washed render (in traditional colours), pargeting, cream bricks ('Suffolk whites') or soft-hued red bricks).

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**1: Encourage measures that lead to the enhancement of existing historic settlements and sites of archaeological interest and the design and location of new developments and infrastructure. Provide wider associated social and cultural benefits through the provision and management of high-quality green infrastructure networks.**

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- Raising the profile of the area by promoting the 'wool towns' as a destination 'brand', which includes distinctive features such as the historic picturesque settlements (for example Lavenham, Cavendish and Thaxted with their large, highly decorated churches), local produce and the area's deeply rural and tranquil character.
- Ensuring that local development frameworks recognise the importance of conserving and enhancing the landscape to help to reduce the likelihood of negative impacts from new developments.
- Working in partnership with businesses within the AONB and nearby to encourage best practice to ensure that measures are taken to control light and noise pollution in order to protect the area's special qualities and high levels of tranquillity.
- Supporting the use of historic and landscape characterisations to inform change, and encouraging their use in community-based planning to help to identify locally valued townscapes, rural landscapes and heritage assets.
- Investigating ways of securing better management of the heritage assets that contribute to the character of the area, particularly those that have been identified as 'Heritage at Risk'.
- Conserving and interpreting historic features in the landscape, including traditional farmsteads and buildings, and geological and archaeological interest features such as ancient wood banks and earthworks, while recognising the potential for undiscovered remains.

## Supporting document 1: Key facts and data

Area of South Suffolk and North Essex Clayland  
National Character Area (NCA): 328,988 ha

### 1. Landscape and nature conservation designations

The Dedham Vale Area of Outstanding Natural Beauty (AONB) covers 7,708 ha (2 per cent) of the NCA.

Source: Natural England (2011)

#### 1.1 Designated nature conservation sites

The NCA includes the following statutory nature conservation designations:

Tier	Designation	Name	Area (ha)	% of NCA
International	Ramsar	Lee Valley; Stour & Orwell Estuaries	156	<1
European	Special Protection Area (SPA)	Lee Valley SPA; Stour and Orwell Estuaries SPA	156	<1
	Special Area of Conservation (SAC)	n/a	0	0

Tier	Designation	Name	Area (ha)	% of NCA
National	National Nature Reserve (NNR)	Hatfield Forest NNR; Bradfield Woods NNR; Hales Wood NNR	464	<1
	Site of Special Scientific Interest (SSSI)	A total of 67 sites wholly or partly within the NCA	2,314	1

Source: Natural England (2011)

Please note: (i) Designated areas may overlap (ii) all figures are cut to Mean High Water Line, designations that span coastal areas/views below this line will not be included.

There are 1,539 local sites in South Suffolk and North Essex Claylands covering 11,039 ha (3 per cent of the NCA).

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at: [redacted]
- Details of Local Nature Reserves (LNR) can be searched at: [redacted]
- Maps showing locations of Statutory sites can be found at: <http://magic.Defra.gov.uk/website/magic/> – select 'Rural Designations Statutory'



### 1.1.1 Condition of designated sites

SSSI condition category	Area (ha)	Percentage of NCA SSSI resource
Unfavourable declining	124	5
Favourable	761	33
Unfavourable no change	270	12
Unfavourable recovering	1,148	50

Source: Natural England (March 2011)

- Details of SSSI condition can be searched at:

## 2. Landform, geology and soils

### 2.1 Elevation

Elevation in the NCA ranges from <1 m below sea level to a maximum of 161 m above sea level. The average elevation of the landscape is 74 m.

Source: Natural England 2010

### 2.2 Landform and process

This NCA is made up of undulating countryside, incised by small river valleys flowing east to the North Sea, with sporadic but narrow interfluvial plateaux. This is an area of chalky boulder clay (glacial till) but with more topographical variation than the area to the north.

Source: South Suffolk & North Essex Claylands Countryside Character Area description

### 2.3 Bedrock geology

The solid geology of the East Anglian plain, of which this NCA forms a part, mainly comprises Upper Cretaceous Chalk. Overlying much of the chalk is a complex sequence of Quaternary sediments.

Source: South Suffolk & North Essex Claylands Countryside Character Area description; Natural England (2010)

### 2.4 Superficial deposits

During the Anglian glaciation ice sheets moving across the area deposited a layer of boulder clay in places tens of metres thick over the Chalk. Pre-glacial river gravels under the clay are an important feature, with evidence of old river channels which were interrupted by the last ice age. As the climate warmed and the ice melted, fast-flowing streams carried sands and gravels and deposited them in valleys where they can be found today.

Source: East Anglian Plain Natural Area profile

### 2.5 Designated geological sites

Tier	Designation	Number
National	Geological Site of Special Scientific Interest (SSSI)	9
National	Mixed Interest SSSI	0
Local	Local Geological Sites	1

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at:

## 2.6 Soils and Agricultural Land Classification

The area is bounded to the north-west by the lighter soils of Breckland and to the east by the clays and sands of the Northern Thames Basin, particularly the Essex Heaths of the Colchester area.

Source: South Suffolk & North Essex Claylands Countryside Character Area description

The main grades of agricultural land in the NCA are broken down as follows (as a proportion of total land area):

Grade	Area (ha)	% of NCA
Grade 1	0	0
Grade 2	199,378	61
Grade 3	109,676	33
Grade 4	2,280	1
Grade 5	0	0
Non-agricultural	4,620	1
Urban	13,034	4

Source: Natural England (2010)

- Maps showing locations of Statutory sites can be found at: <http://magic.Defra.gov.uk/website/magic/> – select 'Landscape' (shows ALC classification and 27 types of soils).

## 3. Key water bodies and catchments

### 3.1 Major rivers/canals

The following major rivers/canals (by length) have been identified in this NCA.

■ River Stour	80 km
■ River Chelmer	50 km
■ River Brett	39 km
■ River Stort	38 km
■ River Colne	31 km
■ River Pant	29 km
■ River Blackwater	28 km
■ River Gipping	27 km
■ River Ash	26 km
■ River Rib	25 km
■ River Ter	24 km
■ River Beane	22 km
■ River Can	16 km
■ River Lark	16 km
■ River Can or Granta	14 km
■ River Brain	14 km
■ River Quin	12 km
■ River Brook	11 km
■ River Kennett	10 km
■ River Lee or Lea	6 km
■ Roman River	5 km
■ River Granta	2 km

Source: Natural England (2010)

Please note: Other significant rivers (by volume) may also occur. These are not listed where the length within the NCA is short.



The Stour rises in Cambridgeshire, north-east of Haverhill at West Wrattling and flows in a south-easterly direction through Wixoe, Clare, Sudbury, Flatford and Dedham (in the Dedham Vale AONB), before it finally reaches the North Sea at Harwich. For much of its length it forms the border between Suffolk and Essex. There are numerous pumping stations and bore holes along the river extracting water for local use. The Stour Navigation was established in the early 18th century and there are restored locks at Dedham, Flatford and Great Cornard.

Since 1971 the Ely-Ouse to Essex Transfer scheme has been used to augment the rivers Stour and Blackwater by up to 1,545 million litres of water per day. A vast amount of this water is then pumped to the reservoirs at Abberton and Hanningfield to supply South Essex and London. Winter rain is stored in these two large reservoirs, which are drawn down in the summer months when river flows are low.

The River Chelmer flows through the county of Essex. It rises close to the source of the River Can near Debden Green, Thaxted. It generally flows south-southeast and is joined by the River Can in Chelmsford. From there it flows east through the neighbouring Northern Thames Basin NCA and into the Greater Thames Estuary NCA where it meets the River Blackwater near Maldon and discharges into the North Sea via the Blackwater Estuary.

The River Brett is a picturesque and peaceful northern tributary of the River Stour, which winds its way through the heart of the Suffolk "Wool Towns" region.

The River Stort is a tributary of the Lea or Lee which it joins at Hoddesdon in Hertfordshire. It is a gentle rural river with a winding course that has remained unaltered. The Stort Navigation runs for 22 km from Bishops Stortford through a drop of 27 m with 15 narrow locks.

The River Pant which rises in the north-west of the NCA becomes the River Blackwater near Braintree in the east. At Little Sampford the river increases in volume courtesy of an outlet of water piped from the Ely – part of the Ouse to Essex water transfer scheme.

The River Gipping in the very north of the NCA flows in a south-easterly direction. It is the source river for the River Orwell that flows to the North Sea from the port of Ipswich through the neighbouring Suffolk Coasts and Heaths NCA. The route of the river was altered for navigation with the addition of 15 locks between Ipswich and Stowmarket in the late 18th century. Parts of the navigation have undergone restoration in recent years, for example at Baylham Lock.

### 3.2 Water quality

The total area of Nitrate Vulnerable Zone is 328,988 ha (all of the NCA).

**Source: Natural England (2010)**

### 3.3 Water Framework Directive

Maps are available from the Environment Agency showing current and projected future status of water bodies at:

[http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=\\_e](http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e)

## 4. Trees and woodlands

### 4.1 Total woodland cover

The NCA contains 20,559 ha of woodland (6 per cent of the total area), of which 7,260 ha is ancient woodland.

**Source: Natural England (2010), Forestry Commission (2011)**

### 4.2 Distribution and size of woodland and trees in the landscape

A shallow wooded ridge sweeps round in a curve from Tiptree to Epping Forest. This area has an open yet wooded character, demonstrating aspects of medieval enclosure, the impact of 20th century field rationalization and Dutch elm disease. Although the north-western part of Essex was historically not as forested as the

ridge, it is sufficiently well-endowed with copses and woods to have wooded horizons which give a distinctly enclosed character to the landscape. This pattern varies slightly in the northern part of the NCA, where hedgerow trees are mostly oak and there are a number of larger woods. Within the Stour valley, the main impression is of modern blocks of cricket-bat willows and poplars planted on the valley floor and sides. The crack willow pollards along the river are also a notable landscape feature, partly reflecting the early 20th century willow industry producing poles and hurdles.

Ancient woodland is strongly represented in the area, though mainly in small parcels. Woods containing small-leaved lime are particularly significant.

Wood pasture and the ancient woodland of Hatfield Forest (formerly a royal hunting preserve) is an important historical and ecological resource.

Source: South Suffolk & North Essex Claylands Countryside Character Area description

### 4.3 Woodland types

A statistical breakdown of the area and type of woodland found across the NCA is detailed below.

Area and proportion of different woodland types in the NCA (over 2 ha)

Woodland type	Area (ha)	% of NCA
Broadleaved	17,108	5
Coniferous	2,229	1
Mixed	355	<1
Other	867	<1

Source: Forestry Commission (2011)

Area and proportion of ancient woodland and planted ancient woodland within the NCA.

Type	Area (ha)	% of NCA
Ancient semi-natural woodland	5,168	2
Planted Ancient Woodland (PAWS)	2,092	1

Source: Natural England (2004)

## 5. Boundary features and patterns

### 5.1 Boundary features

The dominant hedgerow tree in Essex was elm, but Dutch elm disease has had a profound effect on hedgerows and field boundaries which are now lost, gappy or decrepit. In the Suffolk part of the area hedgerow oaks and dense hedgerows continue to give a more treed and hedged character.

Source: South Suffolk & North Essex Claylands Countryside Character Area description; Countryside Quality Counts (2003)

### 5.2 Field patterns

This is largely an area of 'ancient countryside' where the field boundaries are predominantly substantial hedgerows of medieval or earlier date. Fields are frequently irregular in shape and without strong patterning; a character which is still evident despite some 20th century hedgerow removals to increase field sizes. There is a change in character on the western side of the area, roughly on a line running south-westward from Bury St Edmunds to Haverhill, Saffron Walden, Bishop's Stortford and Harlow. To the west of this line there is substantial evidence of 18th and 19th century parliamentary enclosure of former common arable fields. To the east there is very little evidence of former common fields, except in pockets along the Stour valley, notably around Sudbury and Dedham.

Source: South Suffolk & North Essex Claylands Countryside Character Area description; Countryside Quality Counts (2003)



## 6. Agriculture

The following data has been taken from the Agricultural Census linked to this NCA.

### 6.1 Farm type

The area is predominantly arable with some pasture found in the valley floors. The landscape's mixed farming character is supported by the breakdown of farm types: 1,305 cereals (58 per cent of holdings); 319 'other' types (most commonly associated with smallholdings) (14 per cent); 222 lowland grazing livestock (10 per cent); 148 general cropping (7 per cent); 108 horticulture (5 per cent); 86 mixed (4 per cent); 37 specialist poultry (2 per cent); 28 specialist pigs (1 per cent) and 14 dairy (1 per cent). There was a 39 per cent decrease in dairy farms (23 to 14 farms) between 2000 and 2009. Trends also show a decrease in the number of specialist poultry farms (58 to 37 or 36 per cent) as well as a reduction in the number of general cropping holdings (222 to 148 or 33 per cent), mixed holdings (120 to 86 or 28 per cent) and horticulture holdings (148 to 108 or 27 per cent). Lowland grazing livestock holdings increased by 30 per cent (171 to 222 holdings) and the general category of 'other' holdings has also seen a small increase of 3 per cent (310 to 319 holdings). The number of specialist pig farms remained static at 28 holdings.

**Source: Agricultural Census, Defra (2010)**

### 6.2 Farm size

Farms over 100 ha are the most common in the area, 802 accounting for 35 per cent of holdings, followed by farms between 5 and 20 ha, 484 holdings or 21 per cent, farms between 20 and 50 ha, 468 or 21 per cent, and farms between 50 and 100 ha, 338 or 15 per cent. The least common farm size in the area is holdings under 5 ha, just 175 or 8 per cent of holdings. The largest holdings, those over 100 ha, make up 82 per cent of the total farmed area compared to those under 5 ha which cover less than 0.5 per cent of the farmed area. The trends in farm size show a 21 per cent decrease in the number of farms of less than 5 ha (221 to

175). The number of holdings over 100 ha has also decreased by 10 per cent (888 to 802) as has the number of holdings between 5 and 20 ha by 8 per cent (525 to 484). The number of holdings between 20 and 50 ha increased by 9 per cent (429 to 468). The number of farms between 50 and 100 ha remained relatively static, increasing by 1 per cent (334 to 338).

**Source: Agricultural Census, Defra (2010)**

### 6.3 Farm ownership

2009: Total farm area = 254,478 ha; owned land = 194,583 ha

2000: Total farm area = 265,939 ha; owned land = 195,435 ha

**Source: Agricultural Census, Defra (2010)**

### 6.4 Land use

Because of the drainage provided by the rolling nature of the countryside there has always been a significant arable component in the farming of this NCA, subsequently the dominant agricultural land uses are for cereals, accounting for 137,164 ha (54 per cent of the total farmed area). Grass and uncropped land accounts for 38,980 ha (15 per cent). Oilseeds cover 32,008 ha (13 per cent) and 'other' arable crops cover 21,409 ha (8 per cent). Other agricultural land uses each represent less than 5 per cent of the total farmed area. Between 2000 and 2009 there was a 10 per cent decrease in the area of cereals (down by 14,783 ha) and a 22 per cent decrease in the area of grass and uncropped land (down by 11,018 ha). The area under oilseeds increased by 13,003 ha (68 per cent) and the area under 'other' arable crops increased by 4,611 ha (27 per cent). There were also increases in the area of land used for growing stock feed, an increase of 193 ha (140 per cent) and hardy nursery stock, up 13 ha (10 per cent). A decrease was seen in the area of land used for vegetables, down 529 ha (51 per cent). Land used to grow fruit was also down by 344 ha (42 per cent) and land under glasshouses was down 11 ha (33 per cent). Land used for cash roots reduced by 2,347 ha (26 per cent). Other agricultural land uses were relatively static or related to less than five holdings.

**Source: Agricultural Census, Defra (2010)**

### 6.5 Livestock numbers

Pigs are the most numerous livestock within this landscape, numbering 78,600 animals. Sheep are the next most numerous with 45,300 animals while cattle numbered 21,900. All livestock numbers have decreased during the period 2000 to 2009. Pig numbers decreased by 41 per cent (54,600 animals), sheep by 34 per cent (23,700 animals) and cattle by 28 per cent (8,600 animals).

Source: Agricultural Census, Defra (2010)

### 6.6 Farm labour

The majority of holdings are run by principal farmers (including their spouses and business partners) rather than salaried managers (3,177 principal farmers, 419 salaried managers). Together, employed full-time and part-time workers (1,039 FT and 682 PT) are more numerous than casual/gang workers (746). Trends from 2000 to 2009 show a decrease in the number of principal farmers (down by 415) and an increase in salaried managers (up by 70). During this period the number of full-time workers decreased (down by 598) as did the number of part-time workers (down by 108) and the number of casual/gang workers (down by 200).

Source: Agricultural Census, Defra (2010)

Please note: (i) Some of the Census data is estimated by Defra so will not be accurate for every holding (ii) Data refers to Commercial Holdings only (iii) Data includes land outside of the NCA belonging to holdings whose centre point is within the NCA listed.

## 7. Key habitats and species

### 7.1 Habitat distribution/coverage

A breakdown by habitat is included below:

**Wood pasture, parkland and veteran trees** – pollarded willows line some of the rivers, especially the River Stour on the Suffolk/Essex border. Many other veteran trees can be found in hedgerows, on field boundaries, in churchyards, on the boundaries of ancient coppice woods, and in parkland.

**Lowland mixed and broadleaved woodland** – compared to other eastern areas South Suffolk and North Essex is fortunate to have a high density of woodland. This primarily is a wooded arable landscape, except on the river valley floors where arable land, grassland and willow pollards dominate (for example the River Chelmer valley). Hedgerows, copses and blocks of woodland are numerous with many examples of ancient woodland still surviving. The Dedham Vale for example has an open wooded character.

**Ancient and species-rich hedgerows** – a higher than average density of hedgerows can be found in this area giving a well-wooded feel to the landscape. Remnant hedgerows are also common and hedgerow trees persist in many areas. The dominant hedgerow tree in South Suffolk is oak and in Essex it is elm, however elms have been severely affected by Dutch elm disease resulting in the loss of the species from many hedgerows and field boundaries. Largely associated with arable land, hedgerows provide valuable linkages and buffers for a variety of wildlife within the landscape especially when found in conjunction with field margins and ditches.

**Wetland habitats** – numerous small rivers flow east towards the North Sea supporting a range of species and habitats including reedbed and fen. The Stour valley contains blocks of cricket-bat willows and poplars planted on the valley floor and sides, with pollarded crack willows being a notable feature of the riversides.

**Lowland meadow** – only very small fragments of lowland meadow remain. The existing resource is very fragmented and declining in quality and quantity. The survival of some species now relies on the protected road verge systems that run in both Suffolk and Essex.

**Lowland heathland and acid grassland** – The area is bounded to the north-west by the lighter soils of Breckland and to the east by the transition to former heathland on lighter soils. Some small areas of heath are recorded in Great Cornard, Leavenheath and East Bergholt.

Source: East Anglia Plain Natural Area Profile



## 7.2 Priority habitats

The Government's new strategy for biodiversity in England, *Biodiversity 2020*, replaces the previous Biodiversity Action Plan (BAP) led approach. Priority habitats and species are identified in *Biodiversity 2020*, but references to BAP priority habitats and species, and previous national targets have been removed. Biodiversity Action Plans remain a useful source of guidance and information. More information about *Biodiversity 2020* can be found at;

The NCA contains the following areas of mapped priority habitats (as mapped by National Inventories). Footnotes denote local/expert interpretation. This will be used to inform future national inventory updates.

Priority habitat	Area (ha)	% of NCA
Broadleaved mixed and yew woodland (broad habitat)	9,232	3
Coastal flood plain and grazing marsh	1,465	<1
Lowland meadows	316	<1
Lowland calcareous grassland	91	<1
Lowland dry acid grassland	51	<1
Lowland heathland	4	<1
Mudflats	1	<1

Source: Natural England (2011)

Maps showing locations of priority habitats are available at

- <http://magic.Defra.gov.uk/website/magic/select> 'Habitat Inventories'

## 7.3 Key species and assemblages of species

- Maps showing locations of priority habitats are available at: <http://magic.Defra.gov.uk/website/magic/>
- Maps showing locations of S41 species are available at:

## 8. Settlement and development patterns

### 8.1 Settlement pattern

The existing pattern of towns and villages was laid down by the time of Domesday survey of 1086, when the area was already densely settled. This pattern intensified with the development of the medieval woollen trade, which was mainly home-based, backed up by a collection of interdependent trade's people within the towns and major villages with markets. The latter tend to be larger than villages in the South Norfolk and High Suffolk Claylands due to this industrial growth. Otherwise there is a similarity of a dispersed settlement pattern of small hamlets and dispersed farmsteads. Manorial halls, often with a medieval church nearby, form primary settlement clusters of likely late-Saxon origin in the river valleys, with secondary settlements clustering around the edges of greens on the adjacent interfluvial plateaux. Because of the narrowness of the interfluvial greens in this NCA are significantly smaller and narrower than those in the South Norfolk and High Suffolk Claylands. The use of the term 'tye' for a green (as in Barking Tye and Bulmer Tye) is locally distinctive and does not occur to the north of Stowmarket. Most of the dispersed farmsteads are medieval in origin and many display their status by being encircled by water filled moats.

Source: South Suffolk & North Essex Claylands Countryside Character Area description; Countryside Quality Counts (2003)

### 8.2 Main settlements

The main settlements within the NCA are; Bishops Stortford, Braintree, Bury St Edmunds, Chelmsford (northern half), Harlow, Haverhill, Ipswich (western half), Stevenage, Stowmarket, and Sudbury. Both Harlow and Haverhill were developed after the Second World War as overflows for London. Chelmsford was awarded city status in 2012.

**Source: South Suffolk & North Essex Claylands Countryside Character Area description; Countryside Quality Counts (2003)**

### 8.3 Local vernacular and building materials

Timber is the main building material of this area, with late medieval timber-framed buildings being most numerous in the districts to the south and west of the rivers Lark and Gipping, especially in the old textile areas along the Stour and its tributaries, particularly in towns like Lavenham, Hadleigh, and Sudbury, or in formerly industrialised villages like Kersey. Traditional timber construction used an infill of 'loam and laths' between vertical timber studs, which was then lime washed to protect it from the elements and to enhance its appearance. Coloured washes became more popular after 1900, as did the practice of exposing the timber frame. Pargeting, a form of raised plaster decoration on external walls, was popular in the 17th century, but is now undergoing a revival. Good examples can be seen in Clare, Hadleigh, Ipswich and Saffron Walden.

Brick is also widely used, formerly supplied by numerous local brickworks; those at Bulmer being a rare survival. Little Wenham Hall (Wenham Castle) in the east of the area dates from the 1270s and is the oldest substantially brick building in England. The Deanery Tower in Hadleigh, Melford Hall and Horham Hall are notable examples of Tudor brick buildings. Many of the 'brick' buildings are however just a Georgian or later brick facing to an older timber-framed structure. 'Clay lump' (large unfired clay bricks) was also used as a building material in the 19th century, mainly for farm buildings and cottages. Other forms of clay construction, such as cob or rammed earth, are also found. There is a concentration of clay buildings in Buxhall, the home of the Reverend Copinger Hill, a strong advocate of clay building in the 1840s.

Pegtiles rather than pantiles are mainly seen in this area and there is a significant amount of wheat straw thatch.

Ipswich contains examples of Victorian neo-Italianate Gothic buildings (Norman Scarfe).

**Source: South Suffolk & North Essex Claylands Countryside Character Area description; Countryside Quality Counts (2003)**

## 9. Key historic sites and features

### 9.1 Origin of historic features

This is mainly an anciently-enclosed landscape of mixed farming practises, with a pattern of small isolated farms and farming hamlets around greens and commons which retain a rich legacy of historic barns and other farm buildings. Confirmation of the age of the dispersed settlement pattern is provided by the numerous halls and farmsteads that are surrounded by medieval and Tudor moats.

The area also has some of the finest medieval churches in East Anglia, many of them funded by the lucrative wool trade, as at Lavenham and Long Melford.

Medieval parks and the later 'landscape' parks surrounding substantial country houses have left numerous traces in the landscape, as at Ickworth, Kentwell in Long Melford, and Chadacre.

Audley End became the royal palace of Charles II in the 17th century.

Towns such as Long Melford, Lavenham, Sudbury, Thaxted, Halstead and Coggeshall, and Bury St Edmunds maintain their medieval street patterns and contain a wealth of remarkable buildings that demonstrate the wealth founded in the medieval wool trade.

Hatfield Forest, formerly a royal hunting preserve, is an important historical and ecological resource.



Bury St Edmunds on the northern edge of the area contains the remains of one of the five richest and most powerful abbeys in England during the Middle Ages.

Flatford Mill in East Bergholt is strongly represented in the paintings of John Constable, as are other scenes in the locality (Dedham, Stoke-by-Nayland) giving this part of the Stour Valley an identity as 'Constable Country' and a claim to be the iconic landscape of lowland England. The Sudbury area features in the paintings of Thomas Gainsborough and other artists such as Sir Alfred Munnings, Sir Cedric Morris and John Nash also worked in the area.

A long string of Second World War pillboxes is a legacy of a 1940 defensive 'stopline' called the Eastern Command Line that ran from the River Colne northwards to Bures, along the River Stour to Long Melford and then across the country to Bury St Edmunds and the River Lark. There are also remnants of wartime airfields at Chedburgh, Lavenham, Rattlesden, Stradishall, Sudbury and Raydon, with the one at Wattisham still being in active service.

The Norman Foster designed Willis building in Ipswich, constructed between 1970 and 1975 is seen as a landmark in the development of the 'high tech' architectural style. It was listed as a Grade 1 building by English Heritage in 1991.

Source: Countryside Quality Counts Draft Historic Profile, Countryside Character Area description

## 9.2 Designated historic assets

This NCA has the following historic designations:

- 44 Registered Parks and Gardens covering 3,004 ha
- No Registered Battlefields
- 330 Scheduled Monuments
- 17,233 Listed Buildings

Source: Natural England (2010)

- More information is available at the following address:

[REDACTED]

## 10. Recreation and access

### 10.1 Public access

- One per cent of the NCA 3,628 ha is classified as being publically accessible.
- There are 6,375 km of public rights of way at a density of 1.9 per km<sup>2</sup>.
- There are no National Trails within the NCA.

Sources: Natural England (2010)



The Grade II listed 14th century Nether Hall in Cavendish is typical of many of the timber-framed medieval buildings that are a key characteristic of the area.

The table below shows the breakdown of land which is publically accessible in perpetuity:

Access designation	Area (ha)	% of NCA
National Trust (Accessible all year)	531	<1
Common Land	386	<1
Country Parks	505	<1
CROW Access Land (Section 4 and 16)	721	<1
CROW Section 15	232	<1
Village Greens	258	<1
Doorstep Greens	4	<1
Forestry Commission Walkers Welcome Grants	1,710	1
Local Nature Reserves (LNRs)	316	<1
Millennium Greens	16	<1
Accessible National Nature Reserves (NNRs)	456	<1
Agri-environment Scheme Access	137	<1
Woods for People	1,846	1

Sources: Natural England (2011)

Please note: Common Land refers to land included in the 1965 commons register; CROW = Countryside and Rights of Way Act 2000; OC and RCL = Open Country and Registered Common Land.

## 11. Experiential qualities

### 11.1 Tranquillity

Based on the CPRE map of tranquillity (2006) it appears that the lowest scores for tranquillity are associated with the urban centres of Bury St Edmunds, Ipswich, Sudbury, Braintree, Chelmsford, Bishops Stortford, Harlow and Stevenage. Other areas of disturbance can be seen to be associated with the main transport routes linking these centres, the M11, A120, A131, A14 and A12. The highest scores for tranquillity are within the upper clay plateau north of the NCA within south Suffolk and north Essex on the agricultural land between the settlements.

A breakdown of tranquillity values for this NCA is detailed in the table below:

Category of tranquillity	Score
Highest value within NCA	36
Lowest value within NCA	-95
Mean value within NCA	-8

Sources: CPRE (2006)

More information is available at the following address:







Wooded arable landscapes of the NCA provide a strong rural sense of place with high levels of tranquility.

## 11.2 Intrusion

The 2007 Intrusion Map (CPRE) shows the extent to which rural landscapes are ‘intruded on’ from urban development, noise (primarily traffic noise), and other sources of visual and auditory intrusion. This shows that disturbance is associated with the busy ‘A’ roads that run through and around the boundaries of the area including the A120, A131, A14 and A12, together with the M11 and the major settlements of Bury St Edmunds, Ipswich, Sudbury, Braintree, Chelmsford, Bishops Stortford, Harlow and Stevenage.

A breakdown of intrusion values for this NCA is detailed in the table below.

Category of intrusion	1960s (%)	1990s (%)	2007 (%)	% change (1960s-2007)
Disturbed	16	35	42	26
Undisturbed	81	62	53	-28
Urban	3	3	5	2

Sources: CPRE (2007)

Notable trends from the 1960s to 2007 are a notable increase of disturbed or intruded land by 26 per cent which is matched by a reduction of undisturbed or un-intruded land by 28 per cent.

- More information is available at the following address:

[Redacted address]

## 12. Data sources

- British Geological Survey (2006)
- Natural Area Profiles, Natural England (published by English Nature 1993-1998)
- Countryside Character Descriptions, Natural England (regional volumes published by Countryside Commission/Countryside Agency 1998/1999)
- Joint Character Area GIS boundaries, Natural England (data created 2001)
- National Parks and AONBs GIS boundaries, Natural England (2006)
- Heritage Coast Boundaries, Natural England (2006)
- Agricultural Census June Survey, Defra (2000,2009)
- National Forest Inventory, Forestry Commission (2011)
- Countryside Quality Counts Draft Historic Profiles, English Heritage (2004)\*
- Ancient Woodland Inventory, Natural England (2003)
- Priority Habitats GIS data, Natural England (March 2011)
- Special Areas of Conservation data, Natural England (data accessed in March 2011)
- Special Protection Areas data, Natural England (data accessed in March 2011)
- Ramsar sites data, Natural England (data accessed in March 2011)
- Sites of Special Scientific Interest, Natural England (data accessed in March 2011)
- Detailed River Network, Environment Agency (2008)
- Source protection zones, Environment Agency (2005)
- Registered Common Land GIS data, Natural England (2004)
- Open Country GIS data, Natural England (2004)
- Public Rights of Way Density, Defra (2011)
- National Trails, Natural England (2006)
- National Tranquillity Mapping data, CPRE (2007)
- Intrusion map data, CPRE (2007)
- Registered Battlefields, English Heritage (2005)
- Record of Scheduled Monuments, English Heritage (2006)
- Registered Parks and Gardens, English Heritage (2006)
- World Heritage Sites, English Heritage (2006)
- Incorporates Historic Landscape Characterisation and work for preliminary Historic Farmstead Character Statements (English Heritage/Countryside Agency 2006)

Please note all figures contained within the report have been rounded to the nearest unit. For this reason proportion figures will not (in all) cases add up to 100%. The convention <1 has been used to denote values less than a whole unit.



## Supporting document 2: Landscape change

### Recent changes

#### Trees and woodlands

- Assessment of 1999 to 2003 data indicates some enhancement in the levels of woodland cover in the NCA.
- Between 1999 and 2003 an area equivalent to 3 per cent of the 1999 total stock was approved for new planting under a Woodland Grant Scheme agreement (449 ha). Much of the new planting was in the form of small woodland blocks scattered throughout the area, reinforcing existing patterns.
- In 2003 the proportion of established, eligible National Inventory of Woodland and Trees woodland stock covered by a Woodland Grant Scheme management agreement was about 21 per cent. About 54 per cent of the woodland cover is on an ancient woodland site. The proportion of these sites covered by a Woodland Grant Scheme agreement changed from 20 per cent to 30 per cent between 1999 and 2003 indicating that the woodland character was maintained.
- An increase in poplar and willow plantations (particularly along the River Blackwater between Witham and Kelvedon), has impacted on woodland character.
- Semi-natural ancient woodland is under threat from the recent arrival of new species of *Phytophthora*. Ash die-back (*Chalara fraxinea*) was first reported in 2012. Acute oak decline has also recently taken hold within the NCA.

- There have been recent improvements in bringing existing farm woodlands into active management and protecting them from damage caused by grazing deer. Some replanting of estate woodland and parkland trees has also been carried and further opportunities exist.

#### Boundary features

- Commercial agricultural improvement combined with a number of other factors has resulted in the loss of some structural landscape features such as hedgerows, ditches, banks, copses and lines of trees. The absence of these features has led in some places to a loss of definition and texture within the landscape. The removal of hedgerows has largely ceased and hedgerow replanting and management under environmental stewardship is increasing.
- Between 1999 and 2003, Countryside Stewardship capital agreements for linear features included fencing (95 km), hedge management (170 km), hedge planting and restoration (171 km) and restored boundary protection (21 km). The estimated boundary length for the NCA is about 17,972 km. Total length of agreements between 1999 and 2003, is equivalent to about 4 per cent of this total meaning that the resource had been neglected.
- Management of hedgerows has improved over recent years with the length of hedgerows in Environmental Stewardship boundary management in 2011 being 4,963 km. As well as this 333 km of woodland, 810 km of ditch, .5 km of ditches and .5 km of stone-faced ditch bank were also in environmental stewardship boundary management schemes.

## Agriculture

- Over the period between 2000 and 2009 the area of farmed land fell by approximately 11,500 ha. Losses of pasture land within the valleys (except the Stour) have affected the character of the farmed landscape, although this process is now thought to be stable. As a result the overall area of rough and permanent grass has increased and there has been some reduction in mixed and general cropping and cereals and a shift to cattle and sheep which has strengthened the grassland character. Increases in horse ownership across the NCA have led to some permanent pasture being used as horse paddocks.
- Between 2000 and 2009 the land used for growing cereals fell by 10 per cent. Land used for oil seed increased by 13,000 ha (68 per cent). The hectareage of grassland and uncropped land reduced by 22 per cent.
- Livestock numbers which increased significantly during the 1990s, significantly declined from 2000 to 2009. Pig numbers decreased by 41 per cent (54,500 animals) due to falling prices. Sheep numbers decreased by 34 per cent (23,700 animals), and cattle numbers by 28 per cent (8,500 animals).

## Settlement and development

- Existing road and rail links to London are good and combined with the proximity to Stansted Airport this has led to increasing growth, mainly in the south, connected with towns such as Chelmsford, Harlow and Stevenage.
- Other areas of extensive housing, retail and commercial development have occurred around the edges of the NCA. The north east of the character area falls within the Haven Gateway Growth Point, centred on Colchester and Ipswich. This is one of the key international gateways to the UK which has seen increasing urban development. Development has also occurred along the Gipping Valley/A14 corridor at Stowmarket, Claydon, and the west of Ipswich, which has had a localised impact on rural character. Bury St

Edmunds in the north has also seen a significant increase in its housing stock on its north-eastern side.

- Development pressure across the central arable plateau has generally been low, although considerable scattered development has occurred. Haverhill has rapidly expanding over the last two decades.
- Increased light pollution from major roads and urban development has detracted from the rural character of the NCA.
- Recreational pressures from increased numbers of people visiting popular sites within the Dedham Vale AONB, has caused detrimental effects relating to traffic volumes. This has resulted in reduced levels of tranquillity. Seasonal congestion has resulted in increased pressure on the area in terms of demands for visitor attractions, accommodation, road space and parking.

## Semi-natural habitat

- The condition of half of the NCA's SSSI area has been classified as unfavourable recovering with 33 per cent classified as favourable.
- Dormouse, stag beetle and black poplar are all rare species found within the NCA, which direct conservation measures over recent years have helped improve the quality of their specialised habitats and increased the species population numbers.
- The reinstatement of coppice management in ancient neglected woods such as at Bonny Wood, which overlooks Barking Tye in the north east of the NCA, has allowed the recovery of rich and diverse woodland ground flora. Silver-washed fritillary butterflies which had become locally extinct in the mid-20th century have begun to return.



- The area has a high pond density that supports many species including great crested newts. There has been significant restoration of larger ponds both before and since 1999.
- Non native species colonisation of semi natural habitats within the NCA has been on the increase, particularly within the river valleys, with species such as mink, which predated on water vole, signal crayfish, which spreads disease to native white-clawed crayfish, as well as non-native wetland plants including New Zealand pigmy weed and Himalayan balsam.

## Historic features

- Over time the area has seen the neglect of many of its historic features. Over the last century it has lost around half of its historic parklands. In 2003 29 per cent of the remaining parkland was covered by a Historic Parkland Grant, and included within an agri-environmental scheme.
- Restoration of ancient woodlands has taken place with improved management at sites including Priestly Wood and Northfield Wood near Stowmarket and in the case of Bradfield Woods the opening of a visitor/ education centre.
- There has been a significant loss of historic farm buildings, in many cases through conversion to residential properties. In 2003 only about 69 per cent of historic farm buildings remained unconverted.
- There has been some loss in river-valley habitat and grazing land particularly in the Stort Valley.
- Gravel extraction in the river valleys and elsewhere is a concern for both earthworks and archaeological sites visible from cropmarks, but may provide opportunities for geodiversity and Palaeolithic archaeology.

- Since 1994 the River Gipping Trust has been involved in preserving the historic heritage of the Stowmarket Navigation by restoring the structures that enabled navigation of the River Gipping from the centre of Stowmarket to the docks in Ipswich. Restoration has included Bosmere Lock, Creeting Lock and Baylham Lock and continues with work at Pippys Ford. The River Stour Trust has successfully restored the locks at Dedham, Flatford and Great Cornard whilst the restoration of Stratford St Mary Lock is ongoing.

## Coasts and rivers

- In 2003 Countryside Stewardship annual agreements included restoration/ conservation of fen/reedbed/carr (10 ha), and managing reedbed (7 ha). In 2003, within the Environmentally Sensitive Area Scheme, the extent of agreements for marshland supplement was 24 ha and water level supplement was 4 ha. These figures suggested that the resource had probably been maintained.
- Since 1971, the Ely-Ouse to Essex Transfer scheme has been used to augment the rivers Stour and Blackwater by up to 1,546 million litres of water per day. A vast amount of this water is then pumped to the reservoirs at Abberton and Hanningfield in the Northern Thames Basin NCA, to supply south Essex and London.
- High concentrations of both nitrate and phosphate in the river systems in the very north of the NCA mean that the Little Ouse (Thetford Ouse), the River Lark in Bury St Edmunds and the Gipping are priority catchments under the Catchment Sensitive Farming initiative. Only 33 per cent of rivers and lakes in the NCA currently achieve at least good biological status. Water quality in the rivers has however improved through measures implemented under agri-environment schemes.

## Minerals

- The geological resources of the area (chalk, clay, sand and gravel) have been historically important sources of building materials and may be in the future. Chalk has been burnt locally to provide lime for mortar and cement, as at Great Blakenham, although the cement works closed in 1999.
- Sand and gravels of the Kesgrave Formation and Lowestoft Formation continue to be significant sources of aggregate, with quarries including Barham, Boreham and Great Easton. Production levels have dropped over recent years, reflecting the impact of the economic downturn on the construction industry. Where active quarrying is currently taking place and proposals for site extensions exist there are challenges as well as opportunities for geodiversity. Opportunities for restoration include geological exposures, wetlands and woodland.
- Chalk is a source of agricultural lime for dressing fields. There are two active chalk quarries in the NCA, Newport Quarry, Saffron Walden (the only working chalk quarry in Essex) produces over 15,000 tons of ground chalk supplying South Suffolk, Essex and Cambridgeshire and Needham Market Chalk Quarry producing around 30,000 tons of ground chalk a year.
- Palaeogene clays were formerly an important source of Brickearth, as at Bishop's Stortford and Sudbury, and small-scale local extraction still takes place at The Brickfields, Bulmer.
- There are nine geological SSSI and one Local Geodiversity Site. Some are in quarry settings, emphasising the importance of man-made exposures for geoconservation and accessing and understanding geological history.

## Drivers of change

### Climate change

- Changes to rainfall patterns and timings will impact upon wetland features and habitats such as grazing marsh, fen type habitats and ponds.
- River valleys prevented from naturally evolving may increase flood risks if climate change impacts increase rainfall levels and subsequent flow volumes in rivers. Increased flood events may also impact on footpaths and infrastructure increasing their maintenance requirements.
- Adapting agricultural practices in response to water availability and longer growing seasons will result in pressure on traditional pastoral landscapes and grasslands in a move towards drought tolerant crops and grasslands. The role of adaptation strategies will become increasingly important.
- Planning for future development will need to address potential pressures on already stressed areas, for example water availability. The findings and development of techniques from water cycle studies will play an important part in taking forward green infrastructure strategies.
- Historic woodlands and native species may not be the most resilient and therefore unable to survive reduced soil moisture or extreme events. There may be potential opportunities to alter species mix to build resilience to climate change.
- Drying out of bedrock and top soil during periods of drought may have associated impacts on the stability of buildings, especially on the clay plateau.
- Longer, drier summers may reduce soil moisture resulting in desiccation/ of top soils/surface deposits and may lead to erosion of geological faces/exposures.

- Palaeo-environmental deposits and sites may be impacted upon by drying out of sub-soils/increased erosion.
- Pressure to restore minerals sites for water/flood storage may result in loss of access to or creation of geological sections.
- The arrival of new non native species and diseases/invertebrates as vectors of disease for livestock and crops could alter land use practices.
- Flexibility to adapt recreation and access facilities (paths and car parking) to deal with increases in visitor numbers brought about by warmer, drier summers. Increased visitor pressure may cause erosion to footpaths and more road congestion. This will be particularly relevant for key visitor locations such as the Dedham Vale and the 'wool towns'.

## Other key drivers

- The East of England Implementation Plan suggested growth would be focussed on Chelmsford and Braintree, forming a strategic growth point, in order to retain the quality of the rural Essex coastline, smaller historic towns and the arable countryside. The plan proposed around 30,000 new homes of which 16,000 will be in Chelmsford and 7,700 in Braintree and a substantial proportion of 56,000 planned jobs for Essex. It is expected that much of this development will take place.
- The Haven Gateway is subject to major housing and jobs growth putting potential pressure on sensitive landscapes and habitats through increased public access and recreation. Water resources are predicted to become stretched. Priorities are to ensure a balance between economic, housing and infrastructure growth with continued protection of environmental assets of the area.



Visitors soak up the summer sunshine at the Lavenham Fete, overlooked by the tall tower of the elaborate Lavenham Church of St Peter and St Paul.



- The west of the character area – encompassing Stevenage, Harlow, Stansted and Bishop's Stortford - falls within the London Arc East (Harlow/Stansted corridor). It has the key transport links of the M11 and Stansted Airport within it and its proximity to London gives it a strong strategic location for growth. The quality of the natural environment is strong in places such as Hatfield Forest, alongside locations of high deprivation for example in Harlow.
- In the north, Bury St Edmunds falls within the designated growth area of St Edmundsbury district. Much of the area is rural in character and includes protected landscapes and habitats. Agriculture and tourism are important sectors. There are strong functional links with Cambridge. Infrastructure constraints remain an issue for continued growth as does the provision and access to employment land.
- Pressure on tranquillity comes from the proposed growth at the major towns, the potential second runway at Stansted, further development of Haven Gateway ports as a passenger gateway to the area and increasing car use on the major transport corridors (M11, A12, A14, and A120).
- The perceived issue of food security may result in further change to farming practices that could impact on ecological habitats and landscape character of the area. Agri-environment schemes provide opportunities to work with land managers to develop networks of linked habitats and enhance landscape character. Increasing the uptake of schemes remains challenging, due to high agricultural returns achievable in the area.
- The ever increasing deer population is altering the structure of woodlands and climate change will most likely result in further ecological change within the woodland habitats.
- Ash die-back could potentially have a significant impact as ash is a common and characteristic tree species of the NCA.
- Restoration of former gravel workings and other mineral sites is a major driver for geodiversity and biodiversity gain, providing opportunities for priority habitats and geological exposures to be created.
- Locally determined planning and development control may in some cases have the potential to impact on the landscape. Ensuring that local development frameworks recognise the importance of conserving and enhancing the landscape will help reduce any potentially negative impacts.
- Potential growth may lead to increases in the importance of the recreational and environmental value of landscapes within the urban surround; the potential for green infrastructure funding; opportunities for improved access and climate change adaptation.
- Initiatives such as 'Suffolk – Creating the Greenest County' can act as a forum for developing new thinking and promoting carbon-reduction solutions within local communities and businesses.

## Supporting document 3: Analysis supporting Statements of Environmental Opportunity

The following analysis section focuses on a selection of the key provisioning, regulating and cultural ecosystem goods and services for this NCA. These are underpinned by supporting services such as photosynthesis, nutrient cycling, soil formation and evapo-transpiration. Supporting services perform an essential role in ensuring the availability of all ecosystem services.

Biodiversity and geodiversity are crucial in supporting the full range of ecosystem services provided by this landscape. Wildlife and geologically-rich landscapes are also of cultural value and are included in this section of the analysis. This analysis shows the projected impact of Statements of Environmental Opportunity on the value of nominated ecosystem services within this landscape.



Only very small fragments of lowland meadow remain. Those that do are a haven for wildflowers, many of which have been lost from the wider landscape.

Statement of Environmental Opportunity	Ecosystem Service																			
	Food provision	Timber provision	Water availability	Genetic diversity	Biomass provision	Climate regulation	Regulating water quality	Regulating water flow	Regulating soil quality	Regulating soil erosion	Pollination	Pest regulation	Regulating coastal erosion	Sense of place/inspiration	Sense of history	Tranquility	Recreation	Biodiversity	Geodiversity	
<b>SEO 1:</b> Maintain and enhance the character of this gently undulating, rural landscape by maintaining agricultural productivity and encouraging sustainable land management practices that protect and enhance the landscape, geodiversity and biodiversity assets and networks to benefit geodiversity, biodiversity, carbon storage and water quality, as well as the over-riding sense of place.	↗ ***	↔ **	↗ ***	↔ **	↔ **	↗ ***	↑ **	↗ ***	↗ **	↗ **	↑ **	↑ **	n/a	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	↔ ***
<b>SEO 2:</b> Protect and enhance the area's ancient woodland cover, parkland trees, river valley plantations and ancient hedgerows, through the management of existing woods and the planting of new woods, hedgerows and hedgerow trees to benefit landscape character, habitat connectivity and a range of ecosystem services, including timber provision, the regulation of soil erosion and the strengthening of the sense of place and history.	↗ **	↗ ***	↗ **	↔ **	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	↗ ***	n/a	↑ ***	↑ ***	↗ **	↗ **	↑ ***	↔ ***	

Note: Arrows shown in the table above indicate anticipated impact on service delivery: ↑ = Increase ↗ = Slight Increase ↔ = No change ↘ = Slight Decrease ↓ = Decrease. Asterisks denote confidence in projection (\*low \*\*medium\*\*\*high) ° symbol denotes where insufficient information on the likely impact is available.

Dark plum = National Importance; Mid plum = Regional Importance; Light plum = Local Importance



Statement of Environmental Opportunity	Ecosystem Service																			
	Food provision	Timber provision	Water availability	Genetic diversity	Biomass provision	Climate regulation	Regulating water quality	Regulating water flow	Regulating soil quality	Regulating soil erosion	Pollination	Pest regulation	Regulating coastal erosion	Sense of place/inspiration	Sense of history	Tranquility	Recreation	Biodiversity	Geodiversity	
<b>SEO 3:</b> Enhance the slow-flowing, winding rivers and their pastoral valley flood plains that provide linkages through the landscape, including redundant sand and gravel extraction sites, for their ecological, historical and recreational importance. This will support the operation of natural processes and their contribution to biodiversity, geodiversity, soil quality, water availability and regulating water flow and their function in contributing to the character of the area.	↘ *	↔ **	↗ ***	↔ **	↔ **	↗ ***	↑ ***	↑ ***	↗ ***	↗ ***	↗ **	↗ **	n/a	↑ ***	↑ ***	↗ ***	↑ ***	↑ ***	↑ ***	↗ ***
<b>SEO 4:</b> Conserve and enhance the distinctive character of the Dedham Vale Area of Outstanding Natural Beauty with its much-visited 'Constable Country' and improve opportunities for people to enjoy and understand the distinctive assemblage of historic landscapes outside the AONB. Ensure that access and recreational resources are managed to be compatible with the tranquillity of the area and the special qualities of protected landscapes, while providing a valuable health, education and access resource.	↔ **	↔ **	↔ **	↔ **	↔ **	↗ **	↗ **	↔ **	↔ **	↗ ***	↗ **	↗ **	n/a	↑ ***	↑ ***	↑ ***	↑ ***	↗ ***	↗ ***	

Note: Arrows shown in the table above indicate anticipated impact on service delivery: ↑ = Increase ↗ = Slight Increase ↔ = No change ↘ = Slight Decrease ↓ = Decrease. Asterisks denote confidence in projection (\*low \*\*medium\*\*\*high) ° symbol denotes where insufficient information on the likely impact is available.

Dark plum = National Importance; Mid plum = Regional Importance; Light plum = Local Importance

## Landscape attributes

Landscape attribute	Justification for selection
<p>The bedrock and superficial geology has produced a broadly flat plateau, with moderately fertile chalky clay soils that support arable cultivation.</p>	<ul style="list-style-type: none"> <li>■ The heavy impermeable boulder clay plateau soils and the gently undulating valley topography that assists drainage, support high levels of arable cultivation. It is an important area for agriculture; the predominance of this land use has helped maintain the overall open rural character of the NCA.</li> <li>■ Cereal field margins in this area are important for farmland birds such as skylark, grey partridge and corn bunting, animals including brown hare and rare arable plants such as cornflower.</li> <li>■ Traditional orchards occur on the lighter soils and are important for their local varieties of apples, as well as for biodiversity and landscape character.</li> <li>■ Fragments of chalk in the clay give the semi-natural vegetation a generally calcareous character.</li> <li>■ The water holding properties of the clay soils has meant that moated farmsteads have become a characteristic feature of the plateau.</li> <li>■ The plateau, with its dispersed settlement pattern, ancient woods, wide views and large skylines supports an undeveloped nature that generates a feeling of wildness, remoteness and tranquillity.</li> </ul>
<p>River valley sands and gravels.</p>	<ul style="list-style-type: none"> <li>■ Exposures of deposits in river valleys and extraction sites provide geodiversity interest that help illustrate the landscape through time.</li> <li>■ Gravel and sand deposits are the primary mineral resource within the NCA and they are extracted to supply building materials for the construction industry at many sites.</li> <li>■ Lagoons created following the extraction of sand and gravel provide regionally important habitats for overwintering wildfowl and breeding bird populations.</li> <li>■ Restored, flooded former gravel extraction sites introduce new wetland habitats to the area, supporting wetland species and providing recreation opportunities for experiencing wildlife and appreciating geodiversity.</li> </ul>

Landscape attribute	Justification for selection
Ancient broadleaved woodland and wood pasture.	<ul style="list-style-type: none"> <li>■ The area has a high density of mainly small woods, many of which are ancient (such as Barking Woods, Bradfield Woods and Hatfield Forest SSSI/ NNR, one of the largest areas in East Anglia to have never been ploughed). They contain ancient oaks, ash coppice and in places small-leaved lime, some of which are over 1,200 years old, as well as evidence of centuries of woodland management (for example wood banks, ditches, other earthworks and huge coppice stools - particularly those of small leaved lime). They are important as they offer a direct link to historic landscapes.</li> <li>■ Ancient woodland is a particularly important habitat and landscape asset having suffered a dramatic reduction in area over the last century, as sites have been lost to development and agricultural intensification.</li> <li>■ Ancient woodlands provide a last refuge for unusual and specialised wildlife, sustaining rare lichens, fungi (oak polypore and beefsteak fungus); flora and fauna including oxlip and the nationally scarce bird's-nest orchid as well as barbastelle and natterer's bat. They are especially important for invertebrates associated with decaying wood, including the stag beetle. Hatfield Forest is one of the top 10 UK sites for saproxylic beetles.</li> <li>■ Where open to the public, woods provide opportunities to access nature in a cultural setting (for example Bradfield Woods NNR has been under continuous traditional management since 1252 and remains the most extensive woodland in lowland England that is still regularly coppiced on a large scale.)</li> </ul>
Ancient species-rich hedgerows.	<ul style="list-style-type: none"> <li>■ The area has a higher than average density of hedges that are the predominant boundary feature, and together with fragments of woodland they help create an treed character to the overall landscape.</li> <li>■ Hedgerow trees, many of which are ancient, form important landscape features and help distinguish local areas. The dominant hedgerow tree in South Suffolk is oak and in Essex it is elm.</li> <li>■ Species-rich hedgerows are particularly important for linking fragmented blocks of woodland habitat. In many places they provide substitute woodland habitat. This is important for many species including the dormouse, which has been particularly affected by the fragmentation of deciduous woodland.</li> <li>■ They are historically important features, providing links to the past as they often delineate medieval holding and enclosure patterns, particularly so within the river valleys and in the north-east of the character area.</li> </ul>



Landscape attribute	Justification for selection
<p>Pastoral landscape of the intimate, small-scale river valley flood plains.</p>	<ul style="list-style-type: none"> <li>■ The undulating, steep-sided river valley topography provides strong features through the landscape, with much of the intrinsic character of the area coming from the riverine landscape.</li> <li>■ The small scale, pastoral river valley landscapes provide a contrast to the extensive, open clay arable plateau.</li> <li>■ Scattered blocks of poplar plantation, ancient 'crack' willow pollards, the rare black poplar, wet ditches and small streams and thick full hedgerows all contribute strongly to the sense of place.</li> <li>■ The river valley flood plains contain a fragmented mosaic of lowland meadow, permanent pasture grazing marsh habitat, reedbed and fens that are important habitats for several species of farmland bird including lapwing, snipe and barn owl.</li> <li>■ The extent of these habitats has been diminished due to extensive drainage and reversion to arable farming. Those which remain are important as they offer a direct link to historic landscapes.</li> <li>■ Other than broadleaved woodland, the most extensive priority habitat is flood plain grazing marsh covering 1,456 ha, although this is still less than 1 per cent of the NCA as a whole.</li> <li>■ Some of the most tranquil parts of the NCA are found in the pastoral areas beside the rivers, often with an intimate sense of enclosure formed by mature hedgerows, riparian vegetation and the bordering higher ground. They also provide a sense of permanence and history.</li> <li>■ The pastoral areas supply grazing land for livestock, while also providing an important water flow regulation role.</li> <li>■ The lower part of the Stour Valley is particularly important as it has been designated as the Dedham Vale AONB. Its combination of a working landscape, semi-natural features and historic picturesque settlements, were made famous by the artist John Constable, who painted the landscape two centuries ago. Today they help depict the archetypal lowland pastoral English countryside that attracts many visitors to the area, who contribute to the local economy. The area remains an important source for inspiration, still attracting many artists.</li> </ul>

Landscape attribute	Justification for selection
<p>Slow flowing rivers along winding courses.</p>	<ul style="list-style-type: none"> <li>■ The slow-moving water of the narrow winding rivers and their bank-side riparian vegetation provides ecological connectivity into the heart of the claylands. Their character provides a unifying theme through the landscape.</li> <li>■ The river catchments support water extractions for agriculture, industry and for human consumption, as well as supporting wetland habitats and biodiversity.</li> <li>■ The navigable parts of the rivers such as the Stort and the Stour, are important for boating, angling, informal recreation and experiencing wildlife. They also provide a sense of tranquillity.</li> <li>■ Restored and maintained locks such as the Stort Navigation from Bishops Stortford supports 15 narrow locks, bridges and old watermills, for example Baylham Mill and Needham Market Mill on the River Gipping and Flatford Mill on the River Stour, provide a strong sense of history.</li> </ul>
<p>Country houses, estate lands and parklands.</p>	<ul style="list-style-type: none"> <li>■ Designed parkland landscapes and large houses are important historical features that portray past importance and wealth of the area.</li> <li>■ Some have cultural associations such as the 17th century Audley End with its landscape parklands designed by Lancelot 'Capability' Brown. Shrublands on the north side of the Gipping Valley with its enhanced landscape by Humphrey Repton and Italianate gardens designed by Charles Barry is a prime example of the Italian Style in England.</li> <li>■ These quiet and undisturbed landscapes form an important component of the area and include many ancient trees in a wood pasture setting, which are of value for wildlife including hawfinches, barn owl and specialist dead wood invertebrates such as the stag beetle.</li> <li>■ Those which are open to the public such as Ixworth, Kentwell and Audley End provide popular recreation attractions for many visitors.</li> </ul>

Landscape attribute	Justification for selection
Distinctive settlement patterns.	<ul style="list-style-type: none"> <li>■ The well preserved medieval villages or small towns (such as Lavenham, Finchingfield, Cavendish and Thaxted) and their magnificent 'wool' churches are recognised as distinctive components of the landscape that help attract many visitors to the area.</li> <li>■ Anglo Saxon settlements form clusters with notable examples being the Rodings, a group of eight villages in the south-west of Essex, which are the largest group in the country to bear a common name (for example Abbess Roding, Beauchamp Roding).</li> <li>■ Early enclosure resulted in a mixed pattern of isolated moated farms and hamlets around small greens and nucleated settlements. This pattern provides a strong characteristic of the plateau landscape, helping to define the area.</li> </ul>
Traditional building vernacular.	<ul style="list-style-type: none"> <li>■ Traditional buildings are timber framed, often with colour-washed render ('Suffolk Pink'), ornate pargeting or faced with Georgian red brick. Steeply pitched roofs support pegtiles or long straw thatch. Split 'knapped' flint is also characteristic. These vernacular building styles contribute to the rural setting and sense of place and history.</li> <li>■ Weather boarding is also typical of barns, watermills (Baylham) and windmills (Thaxted and Aythorpe Roding). Norman Churches form a strong local vernacular and contribute significantly to the character of the area. Many of these historic buildings are Grade 1 Listed.</li> </ul>



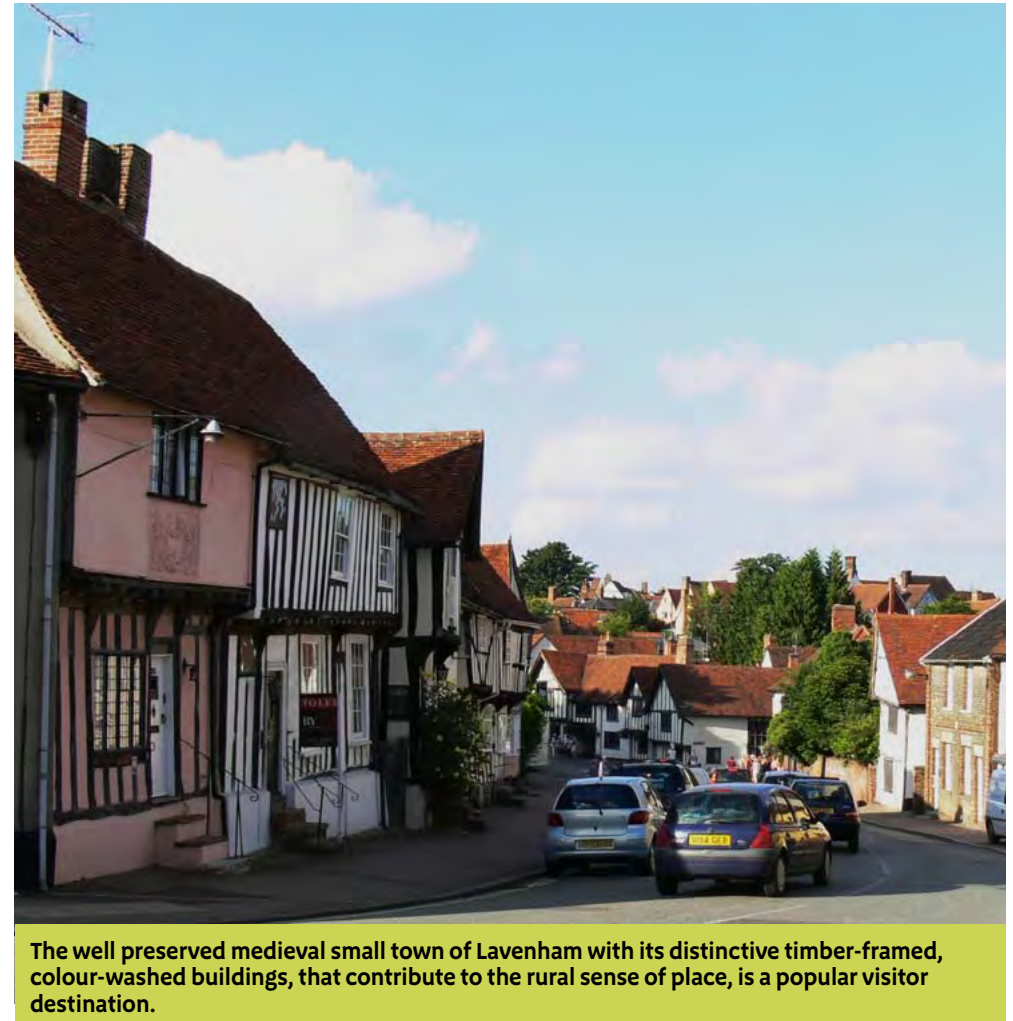
## Landscape opportunities

- Carefully manage the extraction of sand and gravel deposits so that damage to archaeology, geodiversity and existing habitats is minimised and that geodiversity and biodiversity enhancements are maximised, through the creation of new wetland habitats and site restoration.
- Encourage sustainable land management practices that do not detract from existing character, benefit agricultural production for local markets, reduce soil erosion and diffuse pollution and enables landscape and habitat enhancement.
- Enhance the character and the mosaic of habitat networks within the farmed landscape by maximising agricultural diversity where appropriate.
- Manage and enhance the deciduous ancient woodlands and wood pasture including designed parkland landscapes, for their contribution to the sense of place, sense of history, biodiversity value and recreational value, as well as their retention of greenhouse gases. This is particularly important in view of the threat from ash die-back, as ash is a common hedgerow and woodland species across the NCA.
- Plan for a landscape depleted of ash by planting replacement hedgerow tree species such as oak, which is also characteristic of the area.
- Enhance the species rich hedgerow network, encouraging the uptake of agri-environment options that aid replanting where they have been lost. Positively manage and maintain those which have become neglected, to strengthen the historical field patterns, improve wildlife networks and enhance landscape character.
- Protect the pastoral river valley landscape from further fragmentation by resisting inappropriate use and development, promoting traditional management practices, protecting existing pasture from conversion to arable use (especially those containing archaeological features), and seeking opportunities to create more permanent grassland as appropriate, through the uptake of agri environment options.
- Strengthen the historic character of the river valley landscape, encouraging traditional management methods, including willow pollarding along river banks, and the planting of native rare black poplar.
- Reconnect rivers with their flood plains as part of integrated flood management and wildlife enhancement schemes by supporting the operation of natural processes. Link and extend existing habitats and restore or create new river valley grasslands, fens, reedbeds and wet woodland where possible, for their contribution to the historic record of traditional landscapes, their biodiversity value and contribution to the sense of place.
- Maintain the quality and knowledge of archaeological evidence and historic built features and enhance public awareness of the breadth of historic wealth by conserving in context or, where this is impossible, rescue and record and interpret the historic landscape features.
- Conserve the rural settlement pattern by ensuring that new development is complementary to intrinsic local character.

**Continued on next page...**

## Landscape opportunities continued...

- Conserve rural settlement character by using traditional materials in new developments especially the use of colour-washed render and pegtiles.
- Conserve the strongly nucleated character of settlements by encouraging new development to take place within the existing curtilage of settlements.
- Protect and sustainably manage the rich heritage of country houses with designed parklands, while also conserving landscapes linked to the arts – most notably the Lower Stour Valley Dedham Vale AONB.
- Work in partnership with the AONB partnership, following guidance set out within the AONB Management Plan, to protect the tranquillity of The Dedham Vale and its setting, from intrusive communication and utility infrastructure, noisy recreational pursuits, air traffic and light pollution.
- Promote best practice and the development of a high quality visitor experience through sustainable management of visitor levels at popular sites so as not to detract from their special qualities.
- Raise the design quality of new and existing development. Incorporate green infrastructure that provides opportunities for wildlife and public access within urban areas and screens intrusive urban influence (especially on the periphery of settlements), with the use of substantial and appropriate landscaping, such as woodland planting, earthworks and green roofs.



The well preserved medieval small town of Lavenham with its distinctive timber-framed, colour-washed buildings, that contribute to the rural sense of place, is a popular visitor destination.

## Ecosystem service analysis

The following section shows the analysis used to determine key ecosystem service opportunities within the area. These opportunities have been combined with the analysis of landscape opportunities to create Statements of Environmental Opportunity.

Please note that the following analysis is based upon available data and current understanding of ecosystem services. It does not represent a comprehensive local assessment. Quality and quantity of data for each service is variable locally and many of the services listed are not yet fully researched or understood. Therefore the analysis and opportunities may change upon publication of further evidence and better understanding of the inter-relationship between services at a local level.

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Food provision</b>	Moderately fertile soils (mostly Grades 2 and 3)  Equable climate	84 per cent of the land area is farmed. Predominantly arable farming for cereals and oilseed rape. Sugar beet is grown on a large scale in the north of the NCA as there is a processing factory at Bury St Edmunds.  Fruit farms and market gardening occur on areas of lighter land, for example Copella Orchards in the Dedham Vale at Boxford.  Livestock farming includes pigs, poultry, sheep and lowland cattle. There is also some dairy farming.  Value-added food producers, such as organic producers, pork butchers and brewers, cluster around urban areas such as Bury St Edmunds and Ipswich.	Regional	Arable production is the mainstay of agricultural activity across the area. Dairy and meat production are declining farming activities due to increasing costs and decreasing returns. They are, however, closely linked to cultural aspects of the area, particularly the river valleys; the sense of place, biodiversity, sense of history and heritage assets including the rich heritage of barns.  There is the potential to increase dairy and meat provision within the river valleys while safeguarding biodiversity, soil erosion, water quality, water storage, carbon sequestration and climate regulation.  <b>Continued on next page...</b>	Engage, advise and influence farming practice, ensuring that it remains competitive, and supports food security, while increasing its sustainability.  Work with land managers and the farming community to restore mixed livestock/arable farming, including extensive beef production within the river valleys, to enhance traditional pastoral character, while maintaining biodiversity, historic environment and the landscape. Ensure it does not detract from the special qualities of the landscape.  Maintain and enhance advice to farmers especially in areas where diffuse pollution can be a particular problem to encourage take up of Catchment Sensitive Farming initiatives and meet the Water Framework Directive targets.	<b>Food provision</b>  <b>Water availability</b>  <b>Regulating water quality</b>  <b>Regulating soil quality</b>  <b>Regulating soil erosion</b>  <b>Sense of place/ inspiration</b>  <b>Biodiversity</b>  <b>Geodiversity</b>  <b>Recreation</b>



Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Food provision cont.				<p>... continued from previous page</p> <p>The increasing weight of farm machinery can cause negative impacts to local soil structure, making some areas vulnerable to increased run-off.</p> <p>Outdoor pig units on lighter soils in the north-west are vulnerable to run-off, resulting in soil loss and diffuse pollution. Unit infrastructure (straw stacks, pens and fencing) can cause visual clutter.</p> <p>Diffuse pollution from excessive agricultural nutrients entering water courses can impact on European Union designated wildlife sites, downstream in neighbouring NCAs (such as the Stour and Orwell Estuaries Ramsar, SAC and SPA).</p> <p>Climate change is likely to have an increasing influence on food production with water stress being a key driver for change.</p>	Restore mixed livestock/arable farming, including extensive beef production.	

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Timber provision</b>	Semi-natural woodlands (ancient, wet and deciduous woodlands), copses and plantations	<p>Only 4 per cent of area of the NCA is wooded.</p> <p>There is a small amount of commercial plantation forestry.</p> <p>There are few large woods.</p>	Local	<p>New woodland planting in the NCA would increase opportunities for timber provision. Planting would need to be sensitively carried out to increase biodiversity, retain rare species of flora and fauna and minimise conflict with food production and landscape character.</p> <p>Although commercial timber provision is relatively small scale, woodland provides an important role for carbon sequestration, biodiversity and as a recreational resource. Woodlands also provide a sense of tranquillity and support the traditional landscape character.</p> <p>An increase in timber production would give the opportunity to expand habitats and increase the biodiversity associated with woodlands.</p> <p>Coppicing in selected areas of woodland has potential to increase the overall biodiversity of the habitat, improving conditions for many species of invertebrates, birds and mammals.</p> <p>Expansion of the area of woodland would not only increase timber availability but also help to increase climate change regulation, as woodlands offer one of the most effective means of carbon sequestration.</p>	<p>Seek opportunities to increase woodland management and return existing woodland to active management where this will benefit timber provision, landscape character and biodiversity.</p> <p>Manage recreational woodlands to include timber provision where appropriate.</p> <p>Support the creation and expansion of native woodlands in appropriate locations, such as connecting existing woodland and copses, to provide increases in timber and biodiversity, enhancements to the landscape, improve the ecological networks and increase the carbon storage potential, whilst minimising the any potential conflict with food production.</p>	<p><b>Timber provision</b></p> <p><b>Biodiversity</b></p> <p><b>Recreation</b></p> <p><b>Biomass energy</b></p> <p><b>Climate regulation</b></p> <p><b>Sense of place / inspiration</b></p>

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Water availability</b>	<p>The underground major chalk aquifer as well as minor crag aquifers</p> <p>Extensive network of rivers</p>	<p>The major underground chalk aquifer is overlain by London Clay which confines the chalk aquifer restricting the flow of groundwater in and out.</p> <p>Locally important sand and gravel aquifers overlie the Chalk and London Clay<sup>9</sup>.</p> <p>Groundwater resources within the chalk aquifer are currently committed and new groundwater abstraction applications are only considered from drift deposits.</p> <p>The Rivers Can, Brett, Stour, Brain, upper Colne currently have 'no water available' Catchment Abstraction Management Strategies (CAMS) status. The Rivers Chelmer, Blackwater, Roman, and the Lark have an 'over abstracted' CAMS status as do the rivers Rib, Quin, Beane, Ash and the upper reaches of the River Stort while the lower reaches of the Stort and Colne and the rivers Ter and Gipping and the upper River Cam have an 'over licensed' CAMS status.</p> <p><b>Continued on next page...</b></p>	National	<p>Meeting the large demand for potable and irrigation water in this area is a big challenge and one that needs to be addressed to meet the needs of an expanding population and the impacts of climate change.</p> <p>Water abstraction from the underground chalk aquifer causes a reduction in spring flows to flood plain habitats and abstraction of water from the chalk aquifer near fen habitats has caused a lowering of the water table, drying of wetland soils with associated nutrient release and a consequent replacement of wetland species by dry land species.</p> <p>A large number of agricultural businesses hold abstraction licences, enabling farmers to grow irrigated crops such as cereals, potatoes and soft fruit in the NCA).</p> <p>The highest priority catchments in terms of water abstraction control include the Stour, the Colne, and the Gipping.</p> <p>Increases in semi-natural habitats within new developments and the wider countryside such as increased areas of grassland and woodland will improve water infiltration thus increasing ground water stocks.</p>	<p>Work with land managers to promote good farming practices to improve the structure of soils, improve water infiltration and aid aquifer recharge.</p> <p>Ensure the sustainable management of the principal chalk aquifer through integrated, catchment-wide water management policies.</p> <p>Work with land managers to put in place storage measures to help meet their water demands in drier periods. Similar measures should be encouraged on recreational sites such as golf courses.</p> <p>Measures to reduce wind evaporation on fields particularly in drier periods, such as hedgerow planting, should be encouraged.</p> <p>Encourage land managers to allow natural flooding to restore wetlands, helping to store water in wetter periods; increasing water availability during drier months while limiting over abstraction.</p>	<p><b>Water availability</b></p> <p><b>Regulating water quality</b></p> <p><b>Regulating water flow</b></p> <p><b>Regulating soil erosion</b></p> <p><b>Climate regulation</b></p> <p><b>Food provision</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p>

<sup>9</sup> The Combined Essex Catchment Abstraction Management Strategy, Environment Agency (February 2007)



Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Water availability cont.		<p>... continued from previous page</p> <p>The Ely Ouse to Essex Transfer Scheme and the Stour Augmentation Groundwater Scheme both increase river flows during low flow conditions to protect the natural ecology of the systems without restricting abstraction for public water supply.</p>		<p>Opportunities to increase storage of water on farms and sympathetic agricultural land management practices would better enable farms to deal with increased temperatures and drought conditions and reduce abstraction demand for crop irrigation from surface and groundwater sources.</p>		
Genetic diversity	<p>Baylham House Rare Breeds Farm</p> <p>Traditional orchards</p>	<p>The Large Black Pig is found in limited numbers across the NCA at specialist farms and small holdings.</p> <p>Red Poll Cattle (one of the original native dual-purpose breeds) and Speckled Faced Beulah, Wiltshire Horn and Manx Loaghtan sheep are used for conservation grazing in Hatfield Forest.</p> <p>The livestock at Baylham House Farm mostly belong to breeds that were once common but are now under threat because of current commercial pressures.</p> <p>There are many small remnant orchards that support a variety of local fruit varieties, some of which may be rare.</p>	National	<p>The Large Black is the rarest historic pig breed in Britain. It is one of the country's oldest pig breeds. It is on the Rare Breeds Survival Trust list of 'critical' breeds. Increasing the market for its quality pork will increase its numbers.</p> <p>The Red Poll has maintained the dual-purpose characteristics, which now give it a valuable niche role in quality beef production. It is neither rare nor endangered. Increasing grazing pasture within the river valleys could increase its numbers within the NCA.</p> <p>Small scale traditional orchards are in decline; however, they preserve a number of local fruit varieties. Increasing the market for local varieties of fruit and the replanting of orchards can help maintain the existence of local varieties.</p>	<p>Protect the future of the endangered Large Black Pig breed and support educational opportunities to learn about the history of this breed and other rare breeds.</p> <p>Encourage the reversion of arable to pasture within the river valley flood plain to increase the opportunities for grazing, particularly for Red Poll cattle.</p> <p>Continue to use rare breeds in support of conservation grazing of protected sites.</p> <p>Encourage the management of traditional orchards to conserve the genetic diversity within their fruit crops along with their specialised biodiversity and cultural heritage.</p>	<p><b>Genetic diversity</b></p> <p><b>Sense of place/ inspiration</b></p> <p><b>Sense of history</b></p>

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Biomass energy</b>	Existing woodland	<p>The existing woodland cover (4 per cent) of which a high proportion (a little over 50 per cent) is ancient woodland offers some potential for the provision of biomass, both through bringing unmanaged woodland back under management and as a by-product of commercial timber production.</p> <p>The potential for short rotation coppice (SRC) yield in the NCA is medium; potential miscanthus yield in the NCA is high.</p>	Local	<p>Biomass plantings can help to integrate the edges of larger discordant settlements and development into the landscape.</p> <p>In terms of location, the plateau area can offer opportunities for biomass crops, such as miscanthus and SRC, if integrated carefully with the current woodland patterns.</p> <p>River valley landscapes, historic features and historic boundary patterns should be avoided when considering biomass planting so as to maintain the character of these features.</p> <p>The reintroduction of coppice management can increase biomass provision as well as benefiting biodiversity and the character of ancient coppice woodlands.</p>	<p>Secure the management of existing woodlands and the opportunity for woodland creation in appropriate locations for biomass production.</p> <p>Evaluate the potential to grow miscanthus and the SRC as sustainable sources of biomass where appropriate.</p>	<p><b>Biomass energy</b></p> <p><b>Climate regulation</b></p> <p><b>Regulating water flow</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Biodiversity</b></p> <p><b>Regulating soil erosion</b></p>
<b>Climate regulation</b>	<p>Woodlands</p> <p>Hedgerows/ hedgerow trees</p> <p>Wetlands</p> <p>Soils (limited contribution)</p> <p>Unimproved grasslands</p>	<p>Carbon is locked up in the woodland areas and hedgerows on the plateau and wet grasslands in the river valley bottoms. In addition there is a limited amount of carbon stored in hedgerow trees and urban features such as street trees, green walls, roofs and back gardens.</p> <p><b>Continued on next page...</b></p>	Regional	<p>Hedgerows and woodlands, particularly those managed by coppicing, are strong features of the landscape which also perform an important role in carbon sequestration.</p> <p>New planting would help increase this resource. Any new planting would need to be sensitively located to maintain landscape character and the habitat network. Existing copses, plantations and shelter belts could be extended.</p>	<p>Support new woodland/tree planting to increase carbon storage.</p> <p>Encourage the reinstatement of woodland management in neglected woodlands to improve carbon storage whilst at the same time benefiting biodiversity.</p>	<p><b>Climate regulation</b></p> <p><b>Food provision</b></p> <p><b>Regulating soil quality</b></p> <p><b>Regulating soil erosion</b></p> <p><b>Biodiversity</b></p>

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Climate regulation cont.		<p><b>... continued from previous page</b></p> <p>The mineral soils over most of the NCA have low carbon content (0–5 per cent) but there are small pockets of soil with higher carbon content (5–20 per cent) which may be associated with the loamy and clayey flood plain soils with naturally high groundwater.</p> <p>Higher soil carbon content will be found under remaining semi-natural habitats, woodlands and areas of permanent pasture.</p> <p>Soils in the NCA currently provide low carbon storage partly due to cultivation and drainage leading to loss of organic content.</p>		<p>Where agricultural land is not managed sustainably the depletion of soil carbon storage levels can occur. Careful cropping techniques, reduced cultivation, the use of cover crops and measures to actively increase the organic content of soils can increase carbon sequestration.</p> <p>There is currently high pressure on the grazing marsh, wetland and areas of semi-natural grassland from drainage of land for agriculture and development.</p> <p>Semi-natural habitats can directly help regulate climate through providing cooling effects and reduction in run-off in developed areas and, indirectly through increased sequestration and storage of carbon.</p>	<p>Enhance the hedgerow network to strengthen landscape character and improve carbon sequestration.</p> <p>Promote the planting of trees and hedgerows within new developments.</p> <p>Work with land managers to encourage farming practices that reduce tillage and increase the planting of cover crops and increase organic matter content within the soil.</p> <p>Secure opportunities to improve grassland management by reducing cutting and over grazing.</p> <p>Protect and expand areas of flood plain grazing marsh and wetland and grassland habitats.</p>	<p><b>Biomass energy</b></p> <p><b>Water availability</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Sense of history</b></p> <p><b>Geodiversity</b></p>



Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Regulating water quality</b>	Aquifers	The groundwater chemical status is generally good.	Regional	<p>Poor water quality is associated with reduced water levels and excess nitrates and phosphates, both of which can have detrimental impacts on the ecology of surface water bodies by reducing the amount of available oxygen within the water, which in turn reduces the diversity of aquatic plants, invertebrates and fish.</p> <p>An excess of nitrates and phosphates is often associated with agricultural applications, outdoor pig farming and sedimentation from soil erosion. Increasing population densities within towns (such as Bury St Edmunds, Ipswich and Chelmsford) can also increase pressure on water quality through discharges from sewage treatment works and diffuse pollution from industrial processes and surface water drains.</p> <p>Urban growth and regeneration will increase demands on the water resource but also present opportunities for improvements to the water environment through sustainable urban drainage schemes.</p> <p><b>Continued on next page...</b></p>	<p>Work with partners and land managers to implement catchment-wide water management plans to ensure a coordinated approach to reducing the impacts of pollution.</p> <p>Improve the sustainable use of water by employing sympathetic land management practices which reduce the demand for ground water for agriculture to maintain water levels in rivers.</p> <p>Encourage agricultural practices that minimise soil erosion from land at risk of generating diffuse pollution in the catchments such as protecting grassland margins on slopes. Also ensure the use of fertiliser and pesticide is sustainable and associated with good in-field analysis to reduce diffuse pollution.</p> <p>Ensure local development plans include the sustainable management of water resources and promote measures to reduce adverse impacts on water quality in the future, including the use of sustainable drainage systems, sewage treatment options and reducing nutrients from diffuse pollution.</p>	<p><b>Regulating water quality</b></p> <p><b>Regulating water quality</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p> <p><b>Sense of place/ inspiration</b></p> <p><b>Recreation</b></p>
	Streams and rivers	33 per cent of rivers and lakes in the NCA currently achieve at least good biological status. 67 per cent including the rivers Gipping, Lark, Cam, Stour and the upper reaches of the Rib (north of its confluence with the River Quin) have good chemical status. The rivers Chelmer, Colne, Blackwater and Stort fail to achieve good chemical status.				
	Wetlands					
	Woodlands					
	Vegetated slopes					
	Geomorphology	<p>The ecological status of the Colne, Lark, Brett, Stour, Ash, Beane and the Roman River, is moderate. The River Stort near Harlow has a good ecological status but the status is considered poor north of Bishops Stortford. The upper reaches of the River Rib have a moderate ecological status but this drops to poor when it joins the River Quin to the north of Hertford. The rivers Gipping, Cam, Blackwater, Chelmer, Ter and Quin have a poor ecological status<sup>10</sup>.</p> <p>All of the NCA is a Nitrate Vulnerable Zone. There are two priority catchments under the England Catchment Sensitive Farming Initiative: The Little Ouse (Thetford Ouse) and the Gipping and Orwell.</p>				

<sup>10</sup> River Basin Management Plan, Anglian River Basin District, Environment Agency (2009)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality cont.				<p><b>... continued from previous page</b></p> <p>Semi-natural habitats play an important role in filtering surface water run-off before it enters watercourses. Reed beds and wetlands are good examples but tree lines, woodlands, hedgerows and grass verges will also play a part in reducing the levels of chemicals that can enter water systems.</p> <p>Restoration and creation of low-input unimproved grasslands within river catchments can help to improve the water quality in both rivers and underground aquifers.</p> <p>Enhanced land management, for example an increase in buffer strips along water courses, will help prevent deterioration in water quality caused by high nutrient levels.</p>	<p>Where lost, encourage the reinstatement of natural water filters such as reed beds, tree lines, hedgerows and grass verges to help filter surface water run-off before it enters watercourses.</p> <p>Seek to increase grassland strips along field drains and watercourses to capture sediment and nutrients. Create buffer areas between nutrient input and sensitive riparian habitats, areas high in biodiversity and watercourses.</p>	

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<b>Regulating water flow</b>	Rivers Flood plains Wetlands Woodlands	<p>Fluvial flood risk is associated with the flood plains of the major river systems of the Blackwater, Chelmer, Colne, Gipping Stour and Stort as they flow from the higher ground of the clay plateau.</p> <p>The Environment Agency flood risk map indicates that the risk of flooding is high for the major settlements of Braintree, Chelmsford, Great Dunmow, Ipswich and Stowmarket as well as the villages of Bocking Bures, Bures St Mary, White Colne and Chappel.</p> <p>The NCAs main urban areas face increased surface water flooding risk. The areas' most likely affected are western Ipswich and Chelmsford.</p>	Regional	<p>Increased rainfall due to climate change and further urbanisation resulting in increased run-off from hard surfaces are likely to increase the flood risk for some areas, for example Chelmsford in the future. The use of SuDs within urban areas can help reduce these aspects.</p> <p>Where flood plains have been drained, agriculturally improved or developed, their flood water storage capacity and wetland interest is often lost. Increasing the continuity between rivers and their flood plain can help reduce the likelihood of flooding in settlements and improve wetland and aquatic habitats.</p> <p>The creation of flood storage lagoons and encouraging flood compatible land uses can help to alleviate some pressure. These measures help store water during high rainfall events, easing the flood risk on communities downstream in the Northern Thames Basin NCA.</p> <p>Semi natural habitat creation including woodland and hedgerow planting can help reduce levels of rapid run-off and help reduce flood risk.</p>	<p>Seek opportunities to restore a more naturally functioning flood plain and river morphology.</p> <p>In developed areas and in new development, promote sustainable drainage and increased use of semi-natural habitats and permeable surfacing to reduce run-off and increase water filtration; slowing water entering the system.</p> <p>Secure opportunities to expand or create areas of semi-natural habitats such as woodlands (particularly wet woodlands), flood plain grazing marshes, reed beds and grasslands to increase soil infiltration helping to alleviate flood risk.</p> <p>Consider the use of existing and newly created semi natural habitat to act as buffer zones to protect existing development.</p> <p>Seek opportunities for flood storage schemes where flood defences will be difficult to implement.</p> <p>Seek appropriate opportunities for flood storage in locations where people and property are not at risk.</p>	<p><b>Regulating water flow</b></p> <p><b>Water availability</b></p> <p><b>Regulating water quality</b></p> <p><b>Pollination</b></p> <p><b>Pest regulation</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Sense of history</b></p> <p><b>Tranquillity</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p>



Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Regulating soil quality</b>	Moderately fertile chalky clay (mostly Grades 2 and 3) soils  Semi-natural habitats	<p>There are seven main soilscape types in this NCA:</p> <ul style="list-style-type: none"> <li>■ Lime-rich loamy and clayey soils with impeded drainage cover 50 per cent of the NCA.</li> <li>■ Freely draining slightly acid loamy soils (16 per cent).</li> <li>■ Slightly acid loamy and clayey soils with impeded drainage (13 per cent).</li> <li>■ Freely draining slightly acid but base-rich soils (7 per cent).</li> <li>■ Freely draining lime-rich loamy soils (6 per cent).</li> <li>■ Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (6 per cent).</li> <li>■ Loamy and clayey flood plain soils with naturally high groundwater (2 per cent).</li> </ul>	Local	<p>The high agricultural grade soils in the NCA are important for food production.</p> <p>Changing management practices to reduce damage to soil quality could provide increases in food production in the long term. Increases in soil quality will reduce negative impacts from farming on the natural environment through reduction in run-off pollution; this will improve water quality and biodiversity.</p> <p>Maintenance of good soil structure aids water infiltration and recharge of the underlying groundwater aquifers.</p> <p>Soil compaction, poaching and loss of structural cohesion on lime-rich loamy and clayey soils with impeded drainage can become problematic, increasing the vulnerability to run-off under high precipitation conditions. Once these soils are compacted they are surprisingly difficult to rectify.</p> <p>Minimum tillage such as direct drilling can work well in some of these soils, such as those in the north and west of the area. Where organic matter is low increasing organic matter inputs or use of grass leys can help improve soil structure.</p>	<p>Adopt sustainable cultivation practices that increase organic content of soils, such as introducing fallow cropping into rotations, direct drill and grass leys.</p> <p>Avoid overstocking or machinery use where and when it would lead to the compaction of vulnerable soils.</p> <p>Promote agri-environment schemes at targeted sites to deliver resource protection gains, for example by working with farmers to retain soil quality and ensure a viable long term future for agriculture in the area.</p>	<p><b>Regulating soil quality</b></p> <p><b>Food provision</b></p> <p><b>Regulating soil erosion</b></p> <p><b>Regulating water quality</b></p> <p><b>Climate regulation</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p> <p><b>Sense of place/ inspiration</b></p>

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<b>Regulating soil erosion</b>	<p>Semi-natural habitats</p> <p>Hedgerows and trees</p> <p>Woodlands</p>	<p>The majority of the NCAs soil types (covering 92 per cent of the NCA) are at risk of run-off.</p> <p>The lime-rich loamy and clayey soils with impeded drainage cover 50 per cent of the NCA.</p> <p>Freely draining slightly acid loamy soils and the freely draining lime-rich loamy soils together cover 22 per cent of the NCA.</p> <p>Slightly acid, loamy and clayey soils with impeded drainage cover 13 per cent of the NCA.</p> <p>Slightly acid but base-rich soils cover 7 per cent of the NCA.</p> <p>There are two Priority Catchments in the north and north-east of the NCA: the Little Ouse (Thetford Ouse) and the Gipping and Orwell. Both these catchments have light sandy soils vulnerable to soil erosion.</p> <p>The Gipping and Orwell catchment experiences erosion associated with outdoor pig farming.</p>	Local	<p>Both the lime-rich and acid loamy and clayey soils with impeded drainage are prone to compaction and capping/slaking which can be caused by machinery or livestock if accessed when wet. This increases the risks of soil erosion by surface water run-off, especially on steeper slopes.</p> <p>The free draining soils in the north and west have an enhanced risk of soil erosion on moderately or steeply sloping land where cultivated or bare soil is exposed, for example where outdoor pig farming takes place.</p> <p>Erosion is exacerbated where organic matter levels are low after continuous arable cultivation or where soils are compacted. This can be a problem on parts of the clay arable plateau, especially on sloping ground.</p> <p>There is potential for wind erosion on some coarse textured cultivated soils in the north and west of the area. The planting of hedgerows and shelterbelts can help reduce wind erosion in vulnerable areas.</p> <p>Appropriate soil management can reduce risks through careful timing of cultivations and maintenance of vegetation cover.</p> <p>Loamy and clayey flood plain soils with naturally high groundwater are at low risk of soil erosion.</p>	<p>Work with land managers to ensure that soils with impeded drainage are not compacted, by encouraging low stocking rates, the use of low ground pressure vehicles and by encouraging the conversion to semi natural habitat of land at risk of compaction. Encourage the uptake of agri-environment and catchment sensitive farming schemes to support these measures.</p> <p>Encourage the planting of hedgerows and shelter belts in areas where wind erosion occurs. This will also reduce soil erosion caused by overland run-off.</p> <p>On free draining, fragile soils encourage agricultural practices that utilise minimum cultivation techniques and avoid leaving surfaces exposed (for example by introducing and incorporating green cover crops, fallow rotations, overwintering stubble, or reversion to permanent grassland).</p> <p>Encourage agricultural practices that retain cover and build up organic matter especially on free draining soils.</p>	<p><b>Regulating soil erosion</b></p> <p><b>Food provision</b></p> <p><b>Regulating soil quality</b></p> <p><b>Regulating water quality</b></p> <p><b>Geodiversity</b></p>

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<b>Pollination</b>	<p>Semi-natural habitats, especially hedgerows and grasslands/field margins</p> <p>Woodlands and orchards</p>	<p>Semi-natural habitats within the NCA including plateau woodlands and valley flower rich meadows and grasslands support a variety of pollinators which are an essential component of agricultural production.</p> <p>Networks of interstitial habitats such as hedgerows, farm track edges and ditches are also key sources of both pollen and nectar for insects that pollinate commercial arable crops such as field beans.</p> <p>The ancient countryside with its well developed network of interstitial habitats is generally good for supporting a range of pollinators although these networks are more limited across the core arable areas on the north-western parts of the clay plateau.</p>	Local	<p>Pollinating insects are generally supported by a range of semi-natural habitats, in particular species rich grasslands in the river valleys. Increases in habitat for pollinators such as creation of flower rich pasture in the river valleys, planting hedgerows and field margins, will increase the value of this service to agriculture.</p> <p>The degree to which crops rely on insect pollinators depends on both species and cultivar. Improving good networks of pollinator habitat such as field margins on the plateau will assist pollination of crops - field beans, peas and fruit trees - aiding food production.</p> <p>A strong pollinator population supports production of a wider variety of food products. The loss of semi natural habitats has reduced the population of pollinators within the NCA.</p>	<p>Extend semi-natural habitat mosaics that provide early and late nectar sources for pollinators that in turn will pollinate commercial food crops, particularly those grown on the plateau.</p> <p>Work with land managers to further protect and improve the management of areas of semi-natural habitat, buffering existing habitats where possible, to increase hibernation sites for pollinating insects.</p> <p>Work with land managers and use schemes such as environmental stewardship to increase pollen and nectar resources in arable areas through the creation of species-rich grass margins and bespoke pollen and nectar strips, creating and connecting links with other semi-natural habitats.</p>	<p><b>Pollination</b></p> <p><b>Biodiversity</b></p> <p><b>Sense of place/ inspiration</b></p> <p><b>Food provision</b></p>



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<b>Pest regulation</b>	<p>Areas of semi-natural habitat including:</p> <ul style="list-style-type: none"> <li>Woodland</li> <li>Lowland meadow</li> <li>Wet grassland</li> <li>Hedgerows/ grass margins</li> </ul>	<p>Interstitial habitats such as hedgerows, farm track edges and ditches and semi natural habitats including plateau woodlands, and valley flower-rich meadows and grasslands, provide important over-wintering habitats for beneficial predatory invertebrates such as ground and rove beetles, which can regulate the populations of pests such as aphids.</p> <p>The ancient countryside with its well developed network of interstitial habitats is generally good for supporting pest regulation, although these networks are more limited across the core arable areas on the north-western parts of the clay plateau.</p>	Local	<p>The use of insecticides and herbicides in fields and especially around field edges removes a food source for ground-nesting birds such as grey partridge and skylark that can help reduce pest numbers through natural predation.</p> <p>Integrated pest management approaches may in some cases remove the requirement for chemical intervention, although evidence of the efficiency of these methods is not conclusive.</p> <p>Financial support for farmers channelled through agri-environment schemes can assist with increasing the network of these habitats in arable areas.</p>	<p>Encourage land management which reduces insecticide use around the edge of crops, to increase insect numbers that benefit predatory insects, birds (such as grey partridge and skylark) and small mammals (for example shrews and bats).</p> <p>Seek to increase diversity of structure and composition within semi-natural habitats to support a variety of species and encourage land management which reduces use of herbicide to encourage wildflowers to grow and support a greater abundance of insects.</p> <p>Increase field margins, species rich hedgerows, and the diversity of structure and composition within semi-natural habitats to encourage a network of habitats for pest regulating species close to areas of agricultural production.</p>	<p><b>Pest regulation</b></p> <p><b>Pollination</b></p> <p><b>Biodiversity</b></p> <p><b>Food provision</b></p> <p><b>Sense of place/ inspiration</b></p>
<b>Regulating coastal erosion and flooding</b>	n/a	n/a	n/a	n/a	n/a	n/a

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<b>A sense of place/ inspiration</b>	<p>Geology and soils</p> <p>Semi-natural habitats</p> <p>Topographic variation</p> <p>Rivers with winding courses</p> <p>Scattered ancient woodlands and large hedgerows</p> <p>Field patterns</p> <p>Quiet rural areas</p> <p>Traditional built environment - historic villages and churches</p> <p>Narrow sunken, lanes</p> <p>Expansive views, big skies</p>	<p>The underlying geology (chalk, sand and gravels and clay), underpins a mix of habitat types that provide local distinctiveness.</p> <p>Extensive large-scale views across the plateau provide a sense of openness. Undulating steep and gently sloping small river valley topography provides a small-scale intimate character that contrasts with the open plateau.</p> <p>Tranquil river valleys represent the epitome of lowland English countryside character. Particularly so along the River Stour, where the farmed Dedham Vale AONB landscape provides a strongly rural sense of place.</p> <p>Woodlands linked by large hedgerows provide wooded horizons.</p> <p>Small to medium scale medieval fields patterns are overlain in places by large scale, modern field patterns, contributing to a feeling of openness.</p> <p><b>Continued on next page...</b></p>	National	<p>The scenes of a working landscape that John Constable painted two centuries ago strongly influenced the designation of the AONB area, which has come to represent the epitome of lowland English countryside. The AONB 'Constable Country' (centred on the villages of East Bergholt, Flatford and Dedham), stands apart from other lowland river valleys because of its association with Constable and the assemblage of features that can still be seen today. Many artists continue to draw inspiration from this landscape. Pressures on this intimate and subtle landscape from its popularity with visitors can negatively impact upon the sense of place and tranquillity.</p> <p>The loss of structural landscape features such as hedgerows, ditches, banks, copses and lines of trees can result in the progressive loss of visual distinction.</p> <p>Land is increasingly being sold in smaller plots for non agricultural use. While individual incremental changes have minimal impact, cumulatively, the landscape of the area as a whole can be altered.</p>	<p>Conserve the rural mosaic of landscapes and habitats that are characteristic of the NCA and essential for the feelings of place and inspiration.</p> <p>Retain the contrasts within the local landscape character, between the plateau and river valleys and maintain and enhance the balance of the urban and rural landscapes. Ensure the character of the area's settlements is maintained in the rural areas and urban encroachment kept to a minimum.</p> <p>Strengthen the historic character of the landscape, through protecting and enhancing the wooded elements by bringing neglected woodlands into appropriate management and replanting hedgerows and hedgerow trees. Create new woodland as appropriate on the urban fringes to screen settlement edges and provide habitat and green infrastructure benefits.</p>	<p><b>Sense of place/ inspiration</b></p> <p><b>Sense of history</b></p> <p><b>Recreation</b></p> <p><b>Geodiversity</b></p>

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<p><b>A sense of place/ inspiration cont.</b></p>		<p><b>... continued from previous page</b></p> <p>Medieval towns and villages are larger than in the adjacent South Norfolk and High Suffolk Claylands NCA, due to wealth founded in wool. Village greens or 'tyes' are, however, smaller and more strip-like. In Essex, 150 'Ends' (for example hamlets such as Beazley End) are clustered in the north-west and distinguish Essex from Suffolk where there are only a handful.</p> <p>Vernacular building tradition of timber framed buildings with painted render locally sourced red brick, pantiles or straw thatching. Imposing churches with knapped flint decoration.</p> <p>Senses of inspiration are associated with the area's light quality, open skies, historic features and rural tranquillity.</p>		<p>Locally determined planning and development control may in some cases have the potential to impact on the landscape and sense of place.</p> <p>The growth in micro-generation, particularly small scale wind and solar photo voltaic installations can have a significant landscape impact that weaken the sense of place.</p>	<p>Improve understanding of the landscape, its history and functions including its agricultural and wildlife values.</p> <p>Conserve and enhance the rural urban fringe through the spatial planning process and through the development and use of specific design guidance to ensure that new developments fit in with the landscape character to retain local distinctiveness.</p> <p>Ensure that where conversion or change of use of rural farm buildings is considered, developments reflect local building style, resist suburbanisation and do not contribute to incremental new development in the open countryside.</p> <p>Retain wide views and the experience of big skies.</p>	



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<b>Sense of history</b>	Geology and soils	Chalky boulder clay and underlying gravel and sand deposits and chalk provide a geological record and provide an archive of past environmental and climatic change that may help inform our understanding of the impacts of future climate change. These deposits also provide a context for the archaeology found within this NCA such as the Palaeolithic finds.	National	Historic settlements illustrate the wealth founded on the 14th–16th-century woollen trade, which is manifested in the fine examples of medieval timber-framed houses clustered in the towns and villages as well as in the magnificent churches. They provide a historic insight to what was the wealthiest part of England in between the 15th and 17th centuries. Today they are a key attraction and support the area’s tourism industry and local economy.	Conserve, enhance and promote the historic evidence of past human settlement, historic landscapes and links between historical sites, archaeological evidence and the geological interest of the area, to achieve a wider understanding of the importance of the NCA.	<b>Sense of history</b>
	Archaeology					
	Roman roads					
	Rivers					
	Field patterns					
	Ancient woodlands and hedgerows					
	Settlement pattern					
	Moats					
	Built environment and building vernacular					
	Large estates and country houses					
Second World War airfields and pillboxes	The rich heritage and long history of settlement includes Roman sites, medieval villages, Norman castles, Bury St Edmunds Abbey, medieval moated farmsteads, traditional barns and many Grade 1 listed town buildings and churches.	Place names, are important references to local history (Saffron Walden is named after the <i>Crocus sativus</i> , which was locally grown and used to dye cloth made in the town until the 19th century). Essex villages (Woodham Ferrers/ Woodham Mortimer) were named after the lord of the manor, while in the more independent Suffolk, the local church’s patron saint’s name was used.	Provide interpretation and education facilities to explain the heritage assets in the area.	<b>Tranquillity</b>		
Colne Valley Railway	The dispersed settlement pattern of small villages around ‘tyes’ (commons) or strip greens and isolated hamlets.	The restoration of historic river features such as locks and water mills helps conserve the industrial record of the area and supports recreation opportunities within the river valleys.	Manage visitor numbers to sensitive historical sites to ensure that they are sustainable and do not have a negative impact (particularly within the Dedham Vale AONB). Increase opportunities for sustainable recreation and tourism away from the AONB to help relieve congestion within the AONB.	<b>Recreation</b>		
New towns	<b>Continued on next page...</b>		Protect, maintain and restore historic buildings that are assessed as a priority in the region.	<b>Sense of place / inspiration</b>		
					<b>Geodiversity</b>	

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Sense of history cont.</b>		<p><b>... continued from previous page</b></p> <p>River locks, tow paths and watermills allude to the past importance of the river network.</p> <p>The ancient wooded landscape, demonstrates aspects of medieval enclosure and the impact of 20th-century field rationalisation.</p> <p>The Dedham Vale AONB area is a preserved, archetypal, lowland pastoral, English countryside, coupled with attractive vernacular buildings dating from a period of industrial wealth.</p> <p>Large estates and country houses provide a sense of past wealth (Ickworth and Audley End).</p> <p>Second World War runway strips, hard standings, hangars, pillboxes and barracks buildings dot the landscape illustrating the areas wartime importance.</p>		<p>The small ancient woodland remnants are important both for landscape character as well as biodiversity (for example a last refuge for Suffolk's dormice). They are a historic record of a previously more wooded landscape. Hatfield Forest is the only remaining intact Royal Hunting Forest and is considered unique in England.</p> <p>Ancient surviving sinuous hedgerows and boundaries are representative of the pattern of medieval fields and holdings and along with the road and path network provide the backbone of the historic landscape.</p> <p>Loss of traditional village patterns through new infill development, barn conversions and the use of non traditional building materials in renovation work, can lead to gradual erosion of historical assets and the quality and distinctiveness of the built environment.</p>	<p>Provide a sense of history through promotion of the archaeological record and the value of geological sites in preserving a record of past landscapes.</p> <p>Encourage the positive management of earthworks such as moated sites where they have become overgrown or silted, reducing their visibility in the landscape. This will provide opportunities for education.</p> <p>Increase the sense of history by protecting the character and historic resource of agricultural areas and registered parks and gardens for the cultural history they contribute to the landscape character.</p> <p>Strengthen the historic settlement patterns where new development is proposed. Where the restoration of historic features is proposed encourage the use of local materials and local vernacular styles.</p>	

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<b>Tranquillity</b>	Woodlands Rivers Dedham Vale AONB	<p>53 per cent of the NCA is classified as undisturbed.</p> <p>Central rural areas have high levels of tranquillity due to their remoteness from main transport routes and large settlements (around Great Bardfield, Thaxted, Cavendish). The sense of remoteness is enhanced by the wooded character of the plateau and the deep incision of the river valleys.</p> <p>Lower levels of tranquillity are associated with main A roads and the M11.</p> <p>Stansted Airport also has a localised audible impact related to flight paths and an extensive night time visual impact due to the airport/airfield lighting.</p> <p>The major towns reduce tranquillity levels towards the edges of the NCA (Chelmsford, Ipswich, Stowmarket, Bury St Edmunds, Bishop's Stortford, Harlow and Stevenage).</p>	Local	<p>Despite the intrusions of human activity in the 20th and 21st centuries, the Dedham Vale AONB retains a sense of tranquillity in terms of minimal noise, light and development intrusion. Pressures on the intimate and subtle landscape are increasing as visitor numbers grow; resulting in increased disturbance, particularly at popular sites with the summer months.</p> <p>Inward migration to the towns in the area, particularly the main centres close to the boundary, has resulted in urban expansion with increased housing and infrastructure supported by improved transport links to London. This in turn has reduced the tranquillity levels within the area over time. Undisturbed areas have decreased from 81 per cent in the 1960s to 53 per cent in 2007.</p> <p>Increasing the provision of high quality sustainable recreation opportunities away from the AONB and close to areas of population can help alleviate some of the pressures on the protected landscape.</p>	<p>Increase tranquillity by conserving and extending areas of semi-natural habitat, particularly woodlands and hedgerows to benefits wildlife and people.</p> <p>Explore how tranquil areas can be mapped and retained.</p> <p>Encourage new housing and other developments to be of a high quality to meet design and sustainability requirements, particularly with regard noise and lighting in rural areas. Use specific design guidance to retain these qualities.</p> <p>Ensure that local development frameworks recognise the importance of conserving and enhancing tranquillity to help reduce negative impacts from new developments.</p>	<p><b>Tranquillity</b></p> <p><b>Recreation</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Sense of history</b></p> <p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p>



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<b>Biodiversity</b>	<p>Semi-natural and priority habitats</p> <p>Nationally and internationally designated sites</p> <p>Woodlands/ancient woodland and wood pasture</p> <p>Grazing marsh</p> <p>Hedgerows</p> <p>Rivers</p> <p>Agricultural land</p> <p>Orchards</p> <p>SSSI</p>	<p>Land covered by international nature conservation designations (SPAs and Ramsar) totals 156 ha, less than 1 per cent of the total land area. The Lee Valley and the Stour and Orwell Estuaries are both designated as Ramsar and SPA. Only a very small proportion of these sites fall within the NCA.</p> <p>NNRs and SSSI total 2,314 ha or less than 1 per cent of the total land area. There are 3 NNRs all of which are woodland sites. There are 67 SSSI sites. In 2011 over 80 per cent of the SSSI area was in either favourable or recovering condition. 5 per cent was in 'unfavourable' condition.</p> <p>1,569 Local Nature Reserves cover 11,039 ha.</p> <p>Hatfield Forest SSSI/ NNR contains over 800 ancient trees, some of which are over 1,200 years old. Habitats include coppice woodland and wood pasture.</p> <p>Several of the UK's largest bat hibernacula are found within the NCA, for example Little Blakenham Pit SSSI).</p> <p><b>Continued on next page...</b></p>	National	<p>Both the Lee Valley and Stour and Orwell Estuaries Ramsar and SPA sites are on the peripheries of the NCA. They are though close to areas of population and so provide good access to nature and links into the adjacent NCAs.</p> <p>There is fragmentation of biodiversity habitats across the NCA. Important semi-natural habitats are designated, although the importance of the agricultural land for biodiversity is under-represented. Tailored conservation support for agricultural businesses, delivered through agri-environment schemes can help support on-farm biodiversity outside of protected sites.</p> <p>Woodlands, especially ancient woodlands, as well as river valley habitats are core areas for biodiversity. Ancient hedgerows function as corridors linking these often fragmented habitats. Improving the network of linking features such as hedgerows can benefit biodiversity.</p> <p>Ancient coppice woodland and wood pastures are likely to be managed relics of the original wildwood and are now extremely rare. These habitats are especially important for invertebrates, especially those associated with decaying wood. Of particular significance are the saproxylic beetles. Ensuring that dead wood remains in these woodlands will support these specialised species.</p>	<p>Improve the health and resilience of the habitat networks and associated biodiversity to safeguard against the consequential impacts of climate change.</p> <p>Facilitate agricultural businesses to undertake more tailored conservation management, improving the understanding of the area's ecology and requirements for specialist species, through support provided by agri-environment schemes.</p> <p>Seek opportunities to increase woodland management where this will benefit biodiversity as well as timber provision and sense of place.</p> <p>Support the creation and expansion of native woodlands in connection with existing woodland and copses to improve the ecological networks and provide increased benefits for biodiversity.</p>	<p><b>Biodiversity</b></p> <p><b>Geodiversity</b></p> <p><b>Sense of place / inspiration</b></p> <p><b>Sense of history</b></p> <p><b>Recreation</b></p> <p><b>Pollination</b></p> <p><b>Pest regulation</b></p> <p><b>Food provision</b></p> <p><b>Tranquillity</b></p>

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Biodiversity cont.		<p>... continued from previous page</p> <p>Farmland field habitats support skylark, grey partridge, corn bunting, cornflower and brown hare.</p>		<p>Many types of woodland are undermanaged, which has led to a decline in their importance for biodiversity. Improving or reinstating management practices such as coppicing can support biodiversity.</p> <p>The diversity of aquatic plants, invertebrates and fish within the NCAs rivers is adversely affected by poor water quality, which is associated with reduced water levels and excess nitrates and phosphates. Reducing levels of run-off into water courses through the uptake of Catchment Sensitive Farming schemes can limit the impacts of diffuse pollution of watercourses.</p>	<p>Raise awareness and improve understanding and enjoyment of the sensitive habitats and wildlife. Managing visitor pressures at popular and sensitive sites by investing in high-quality infrastructure and interpretation.</p> <p>Encourage different remedies to improve water quality such as increasing on-farm water storage to reduce water abstraction levels, increasing flow rates and water levels in rivers and continue to make improvement to waste water treatment works, to benefit aquatic biodiversity.</p> <p>Raise awareness of the role of geodiversity in underpinning biodiversity.</p>	

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
<b>Geodiversity</b>	<p>River valley exposures</p> <p>Quarry exposures</p> <p>Geomorphology</p> <p>Archaeology</p>	<p>Geodiversity underpins much of the characteristic landscape features within this NCA.</p> <p>The principal mineral resource within the NCA is sand and gravel. Particular concentrations occur in the river valleys, especially the Gipping Valley in the north.</p> <p>The underlying Late Cretaceous Chalk is exposed in old quarries at Great Blakenham and at Little Blakenham). There are two active chalk quarries (Newport Quarry, Saffron Walden and Needham Market Chalk Quarry).</p> <p>The extensive spread of till (boulder clay) has in the past been extracted for brick making at various sites. Brickearth continues to be extracted at The Brickfields, Bulmer near Sudbury.</p> <p>Chalky boulder clay and underlying gravel and sand deposits provide a geological record and provide an archive of past environmental and climatic change that may help inform our understanding of the impacts of future climate change. These deposits also provide a context for the archaeology found within this NCA such as the Palaeolithic finds.</p> <p><b>Continued on next page...</b></p>	National	<p>The valleys significant geodiversity, including Cretaceous, Palaeocene, Eocene, Pliocene and Pleistocene geology, and also Pleistocene and Holocene landforms.</p> <p>Sand and gravel is exploited by quarrying for use in the construction industry. The restoration of river valley sand and gravel quarries provides opportunities for geodiversity, wetland biodiversity as well as recreation.</p> <p>Extracted chalk is used for the improvement of arable land and for specific industrial purposes. Redundant old chalk quarries such as those in Great Blakenham and Little Blakenham are important sites for biodiversity and in particular bats that utilise old extraction tunnels.</p> <p>Disused chalk and gravel pits continue to yield geological information and examples of relic and active landform features.</p>	<p>Use geological sites as a community educational tool, emphasising the integral role of geodiversity in underpinning the landscape character of the NCA.</p> <p>Ensure that geodiversity sites continue to be protected and conserved and are still available for research.</p> <p>Maintain and enhance the geological and geomorphological resource through implementation of the Suffolk/Essex Geodiversity Action Plan, specifically through maintenance of natural fluvial processes, together with the development of local geological conservation strategies and assessment of educational/research value of sites.</p> <p>Identify opportunities for geodiversity (and biodiversity) enhancement, which might develop through the reinstatement of semi-natural habitats.</p>	<p><b>Geodiversity</b></p> <p><b>Biodiversity</b></p> <p><b>Recreation</b></p> <p><b>Sense of place/ inspiration</b></p> <p><b>Sense of history</b></p>



Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Geodiversity cont.		<p><b>... continued from previous page</b></p> <p>There are nine geological SSSI and one Local Geological Site within the NCA.</p>			<p>Ensure that sand and gravel extraction sites are restored to contribute to local landscape character and exploit geodiversity opportunities and enhance biodiversity opportunities, providing improved access where possible.</p>	

## Photo credits

Front cover: The characteristic arable farmed landscape of the Stour Valley near Cavendish, in the heart of the NCA.

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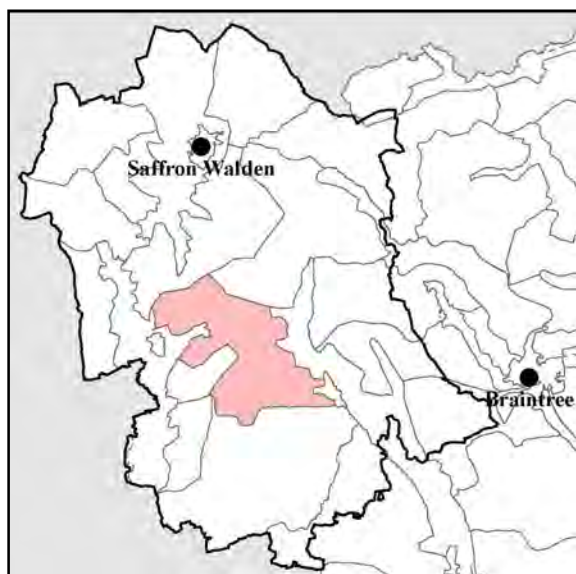
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## **7.0 LANDSCAPE CHARACTER OF UTTLESFORD DISTRICT**



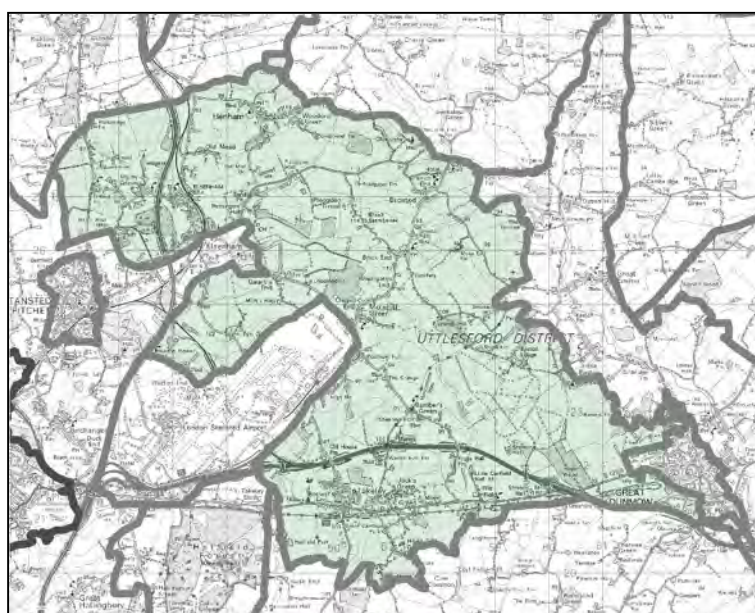


## B10 BROXTED FARMLAND PLATEAU



### Key Characteristics

- Gently undulating farmland on glacial till plateau, dissected by River Roding.
- Large open landscape with tree cover appearing as blocks on the horizon or as scattered trees along field boundaries, with intermittent hedgerows.
- Higher ground where plateau broadens and flattens is expansive and full of big sky views.
- Dispersed settlements and few villages of any size.
- Some sunken lanes.
- Moats, halls and historic farmsteads scattered over the area.



### Overall Character

This character area is in the glacial till plateau farmland, bisected by the river Roding. It lies between the upper Chelmer and upper Stort river valleys, and stretches from Henham and Ugley Greens eastwards to Molehill Green and the rural fringe to the west of Great Dunmow. Stansted Airport juts into the area at the southwest, and the southern limits reach Puttock's End, below Takeley. This gently undulating arable farmland is in the southern reaches of the boulder clay; the farms are large and the landscape is open, with few trees except in blocks or near settlements. Hedgerows are intermittent and field pattern is delineated mainly by ditches or grass tracks, occasionally with trees or scrub. Rough grassland and pasture for horses can be seen near settlements, bounded by post-and-rail fencing. Tree cover appears in blocks of mixed deciduous types and is often seen as a distant framework on the horizon, or appears to link into a continuous backdrop. The river Roding winds its way southwards from Molehill Green in the centre of the area. Settlement pattern is varied; the village of Henham is a

nucleated settlement while Takeley and Broxted are linear. Most settlements are hamlets or farmsteads scattered over the plateau or along the lanes. The ancient market town of Great Dunmow, to the east of this character area, is the largest in the vicinity. Vernacular buildings are pale colour-washed plaster, many with pargetting, and thatched roofs. Farm buildings are sometimes red brick with black-stained weatherboarding. The historic past is also visible in the many moats, halls and ancient woodland spread over this countryside. New residential development outside Henham is more suburban; with little link to local building materials or vernacular style. This is also apparent in the villages around Takeley. Stansted Airport is a major influence on the character of the southwestern part of this area. Though screened by trees and shrubs, its buildings and tower can be seen in long views. The access roads and perimeter roads have brought an urban feel with them. The sound of aircraft is almost constant. The A120 and the B1256 cut across the southern part of this area, and a small piece of the M11 crosses the northwest corner. Water towers, telegraph poles and telecommunications masts are sometimes seen on the horizon. In spite of the proximity of the airport and major roads in the south and west, there still remain only winding lanes and minor roads for access to the scattered farmsteads. Many of these lanes are sunken, with verges of varying widths, sometimes tree-lined, and often quite peaceful. Many footpaths including the Harcamlow Way cross the area. The texture of the landscape is influenced by the topography and the contrasts with trees, fields and local building materials. Away from the Stansted flight path tranquillity is moderate to strong.

### **Visual Characteristics**

- Churches set on hills are visible in long views.
- Telecommunications masts occasionally visible.
- Stansted Airport and tower visible in long views from many locations within the character area.
- From several locations in the north and east of the character area, panoramic views across the Chelmer Valley slopes and views to Great Dunmow.
- Commercial premises growing around airport.

### **Historic Land Use**

Evidence of historic land use within the Character Area is dominated by pre-18<sup>th</sup> century irregular fields, probably of medieval origin and some maybe even older, interspersed with linear greens and a number of former common fields. Historic settlement is largely dispersed, comprising church/hall complexes, isolated farms, many moated sites and small hamlets, often along linear greens. The main historic landscape features include:

- A significant proportion of ancient woodland, and many hedgerows which are also of considerable antiquity.
- Intricate, twisting and sunken roads, of ancient origins.

### **Ecological Features**

This Character Area is dominated by intensive and widespread arable agriculture. However, the area does contain 17 sites of nature conservation value. These include:

- Elsenham Woods SSSI and part of High Wood SSSI comprising ancient woodland habitats.
- Halls Quarry SSSI comprising a variety of grassland and scrub habitats.
- Five CWSs with a variety of ancient and semi-natural woodland habitats including: Harland Wood, Lady Wood, Middlefield Wood, Prior's Wood and Hoglands Wood.
- Nine CWSs with a variety of grassland, woodland and wetland habitats including: Palegate Meadow, Broxted, Pledgdon Green, Elsenham Hall Fields, part of Wilkinson's Plantation, Turners Spring, Molehill Green Meadow, Stansted Sewage Works and Fen and Little Easton Airfield.



### **Key Planning and Land Management Issues**

- Past loss of hedgerows and decline in hedgerow management.
- Potential loss of hedgerows and field pattern due to the further introduction of intensive agricultural practices.
- Pressure from increased traffic on rural lanes and erosion of verges.
- Pressure from expansion of village settlements which may be detrimental to landscape character
- Pressure from visually intrusive expansion due to Stansted Airport.
- Potential for erection of new farm buildings on the higher ground, which may be visually intrusive
- Pressure to use quick screening ability of conifer plantings which are out of character with this landscape.
- Pressure for new development from Stansted Airport second runway.

### **Sensitivities to Change**

Sensitive key characteristics and landscape elements within this character area include blocks of mixed deciduous woodland (visible on the horizon) and scattered trees within field boundaries (which are sensitive to changes in land management). The open nature of the skyline of higher areas of plateau is visually sensitive, with new development potentially visible within expansive views across the plateau. Sunken, often tree-lined lanes are also sensitive to new development, or increases in traffic flow associated with such development. There is a sense of historic integrity, resulting from a dispersed historic settlement pattern and several visible moats and halls (the pattern of which is sensitive to change or new development). There are also several important wildlife habitats within the area (including 14 sites of importance for nature conservation, comprising ancient woodland, grassland and wetland habitats) which are sensitive to changes in land management. Overall, this character area has moderate to- high sensitivity to change.

### **Proposed Landscape Strategy Objectives**

*Conserve* - seek to protect and enhance positive features that are essential in contributing to local distinctiveness and sense of place through effective planning and positive land management measures.

### **Suggested Landscape Planning Guidelines**

- Conserve the rural character of the area.
- Ensure that any new development responds to historic settlement pattern, especially scale and density, and that use of materials, and especially colour, is appropriate to the local landscape character; such development should be well integrated with the surrounding landscape.
- Encourage the appropriate use of colour as well as deciduous tree planting to mitigate the visually intrusive effects of large modern farm buildings; avoid coniferous screen planting.
- New farm buildings such as sheds should be sensitively located within the landscape to respect local character and avoid the skyline.
- Small-scale development should be carefully sited in relation to existing farm buildings.
- Encourage sensitive conversion of barns which respects traditional materials, built fabric and landscape character.

### **Suggested Land Management Guidelines**

- Strengthen and enhance hedgerows with hawthorn where gappy and depleted.
- Conserve and manage ecological structure of woodland, copses and hedges within the character area.
- Conserve and manage areas of ancient and semi-natural woodland as important landscape, historical and nature conservation sites.
- Conserve historic lanes and unimproved roadside verges.

## Welcome

This study report is one of a series commissioned by Essex County Council and Southend on Sea Borough Council, the Joint Structure Plan Authorities (JSPAs). Whilst every effort has been made to ensure that the report is factually accurate, its contents, opinions, conclusions and recommendations are entirely those of the consultant who carried out the study. The content should not be held to represent the views of the JSPAs. It is therefore being made available solely for information purposes as a background technical document.

This CD contains Adobe Acrobat file of the Essex Landscape Character Assessment. For ease of access the contents of the document are split into 3 separate files. Within those files bookmarks have been established to guide the user within the files and to various sections. To show these, click the Show/Hide Navigation Pane button , and then click the Bookmarks tab.

- **Section One** introduces the Landscape Character Assessment, explains its purpose, and describes the general approach and methodology for the study;
- A summary of the physical and cultural evolution of the landscape and an overview of the historic landscape can be found in **Section Two**, which also reviews the current planning policy framework for guiding change in the plan area;
- For those wishing to understand how this assessment fits into the hierarchy of landscape character assessments in England, **Section Three** explains the relationship of the national classification defined by the Character of England Map with the county-scale classification, and its relationship to more detailed District or other local assessments;
- Descriptions of the Landscape Character Areas and their sensitivity are provided in **Section Four**;
- A summary of the key issues for the planning and management of the landscape in the plan area can be found in **Section Five**.

Other Files reproduce

- the Assessment's cover and frontispiece
- [the Preface Summary and Contents](#).
- and a series of better quality image files of the individual character areas

These documents require Adobe Acrobat Reader installed on the users computer. If you do not have this installed you can go to the Adobe Web site [\[REDACTED\]](#) for the downloadable Reader software.

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February 2003



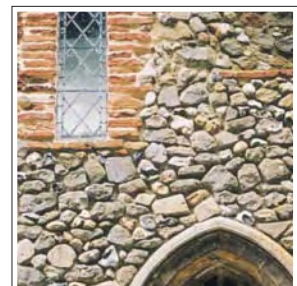
# Essex & Southend-on-Sea Replacement Structure Plan Review

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## ESSEX LANDSCAPE CHARACTER ASSESSMENT

Final Report

2003



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**CHRIS BLANDFORD ASSOCIATES**

*Environment Landscape Planning*





## **PREFACE**

This study report is one of a series commissioned by Essex County Council and Southend on Sea Borough Council, the Joint Structure Plan Authorities (JSPAs). Whilst every effort has been made to ensure that the report is factually accurate, its contents, opinions, conclusions and recommendations are entirely those of the consultant who carried out the study. The content should not be held to represent the views of the JSPAs. It is therefore being made available solely for information purposes as a background technical document.

The Steering Group was chaired by Martin Wakelin (Landscape and Ecology Manager, Essex CC) and included:

- Crispin Downs (Landscape Consultancy Manager, Essex CC)
- Roy Lewis (Principal Policy Manager, Essex CC)
- Martin Scott (Principal Planner - Environment, Southend-on-Sea BC)
- Sarah Nicholas (Uttlesford DC)

The CBA project team comprised:

- Chris Blandford
- Dominic Watkins (Project Manager)
- Matthew Bright
- Justine Dowsing
- Andy Jones
- John Alvarez
- Amanda Davey

*Chris Blandford Associates*

*July 2002*

## EXECUTIVE SUMMARY

Essex County Council and Southend-on-Sea Borough Council commissioned Chris Blandford Associates to prepare an assessment of the character of the landscape within the area covered by the Replacement Structure Plan.

Based on the Countryside Agency's guidance, the Landscape Character Assessment focussed on establishing a 'baseline' of the existing character of the Essex landscape. The assessment involved a broad review of the landscape based on written sources, existing local assessments and an extensive survey in the field. The study identified thirty-five 'Landscape Character Areas' - geographical areas with a recognisable pattern of landscape characteristics, both physical and experiential, that combine to create a distinct sense of place (e.g. the *Brentwood Hills*). The emphasis of current landscape policy is on managing change through guiding necessary development to landscapes where the type and degree of change can best be accommodated without significant effects on the intrinsic character. Following the identification of distinctive Landscape Character Areas, an evaluation of the relative sensitivity of these areas to change was undertaken to inform strategic planning decisions.

It is intended that this study will provide a strategic understanding of the character and sensitivity of landscapes throughout the plan area to underpin landscape policies in the Adopted Replacement Structure Plan (April 2001). For example, the assessment identifies the particular character of the landscape to inform Policy NR1 (Landscape Conservation) and Policies NR2 and NR3 (Dedham Vale AONB and Suffolk Coast & Heaths AONB). It also provides the framework for the more detailed landscape character assessments of District areas to help inform the preparation of Local Plans encouraged by Policy NR4 (Landscape Character Assessment).

It is expected that this study will be of particular interest to elected members and officers in Essex County Council, Southend-on-Sea Borough Council and the District Councils, and other statutory and non-statutory partnership organisations. Representatives of many of these stakeholders participated in the landscape assessment process through discussion workshops.



## USER'S GUIDE

The assessment can be read as a whole, or alternatively specific sections can be consulted as required. A general outline of the report is provided below to guide the user to the relevant information:

- **Section One** introduces the Landscape Character Assessment, explains its purpose, and describes the general approach and methodology for the study;
- A summary of the physical and cultural evolution of the landscape and an overview of the historic landscape can be found in **Section Two**, which also reviews the current planning policy framework for guiding change in the plan area;
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#### 4.3.5 *Central Essex Farmlands (B1)*



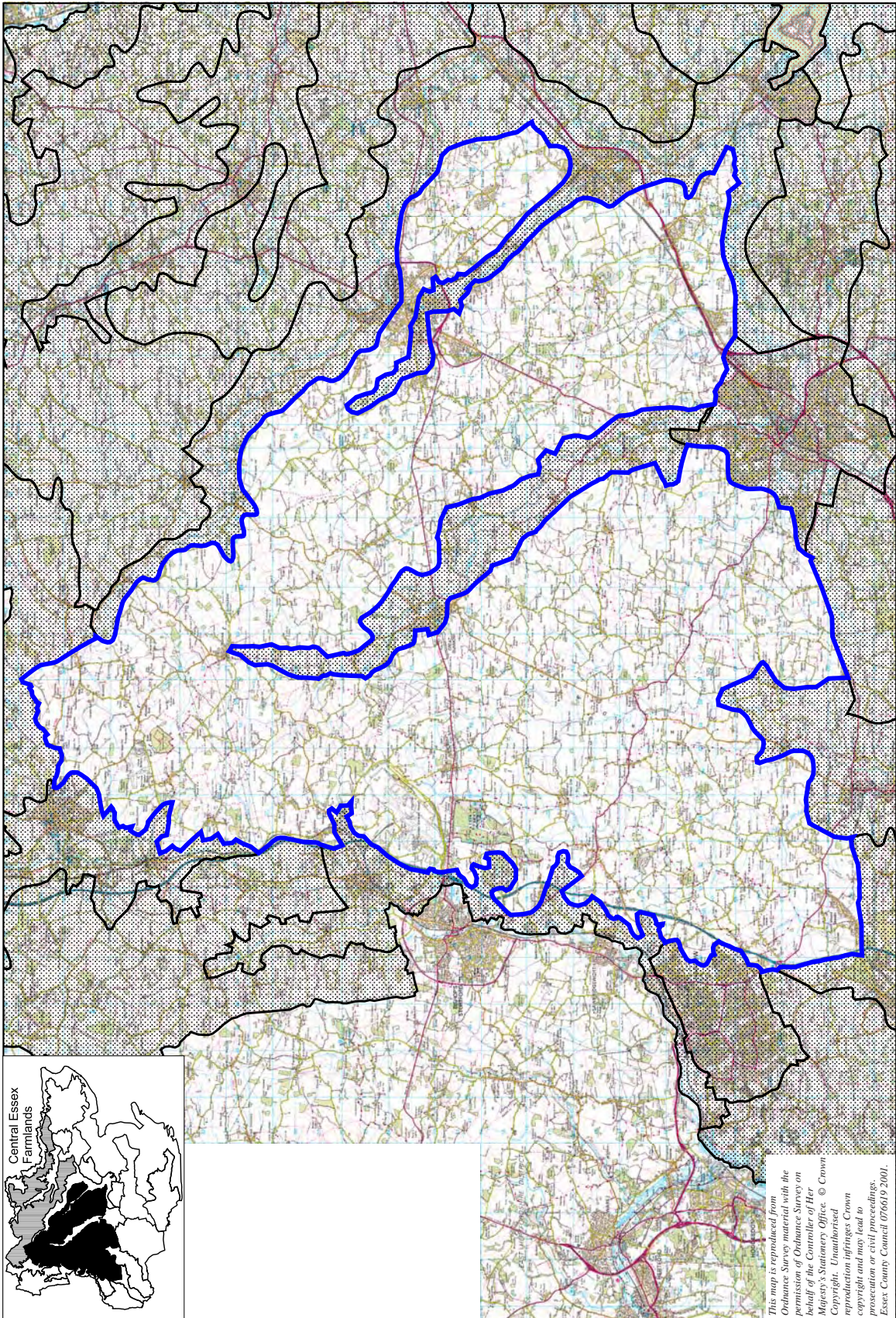
##### ***Key Characteristics***

- Irregular field pattern of mainly medium size arable fields, marked by sinuous hedgerows and ditches.
- Many small woods and copses provide structure and edges in the landscape.
- Scattered settlement pattern, with frequent small hamlets, typically with greens and ponds.
- A concentration of isolated moated farmsteads.
- Network of narrow, winding lanes.
- Mostly tranquil character away from major roads and Stansted Airport.

##### ***Overall Character***

The Central Essex Farmlands is an extensive area of gently undulating arable farmland bisected by the Chelmer Valley. Irregular fields are enclosed by thick but intermittent hedgerows, or just marked by grassy banks and ditches. In long views scattered small woods and copses, and hedgerow trees coalesce to sometimes create the illusion of a wooded horizon. The dispersed settlement pattern is characterised by small isolated hamlets and farmsteads, often straggling along lanes, with a few widely separated towns and larger villages. Narrow strip greens and moated farmsteads are distinctive features of the area. Away from the A120, A130, A12, M11 road corridors/Stansted Airport and its flightpaths,







large parts of the area have a tranquil character, embracing tracts of fairly secluded countryside.

### ***Character Profile***

#### *Geology*

- Glacial Till (Chalky Boulder Clay).

#### *Soils*

- Slowly permeable calcareous clay soils. Some deep well drained calcareous clay and fine loamy soils.

#### *Landform*

- Gently undulating plateau 30-90 m in height.
- Locally more rolling, where dissected by small shallow valleys of streams and brooks.
- Some areas to the south almost flat, e.g. around Boreham.

#### *Semi-natural vegetation*

- Ancient ash-maple woodland with hazel coppice, also oak-hornbeam woodland.
- Pockets of calcareous/neutral meadows and marsh.
- Alder-carr in some river/stream valleys.

#### *Pattern of field enclosure*

- Irregular field pattern. Predominantly medium size fields, but small fields occur around settlements. Localised areas with large fields where hedgerows have been removed.
- Fields bounded by thick hedgerows or solely by banks and ditches.

#### *Farming pattern*

- Mainly arable, small areas of pasture, associated with settlements.

#### *Woodland/tree cover*

- Scatter of small-medium size woodlands and small copses with irregular indented outlines.
- Occasional poplar tree belts and small mixed plantations of regular shape.
- Some areas where woodland cover is more sparse.
- Hatfield Forest is a large important area of ancient coppice and wood pasture with pollarded trees.
- Intermittent hedgerow trees of oak, ash, hornbeam. Localised areas with more frequent hedgerow trees, e.g. around Terling/Fairstead, and the northern Roding villages.

### *Settlement pattern and built form*

- Frequent hamlets (ends, greens, tyes) and farmsteads with only a few villages and towns.
- Rich historic architectural detail in market towns such as Thaxted, as well as in many of the smaller settlements.
- Typical historic vernacular of half timber, colour wash plaster, thatch and pegtile roofs, some decorative pargetting.
- Some villages near A12 corridor have more modern suburban development.

### *Communications*

- Many small, narrow winding lanes, sometimes taking dramatic right angled turns. Variable width grass verges. Lanes are often sunken where valleys are crossed.
- Major A120, A130 and M11 roads cross parts of the area.

### *Other landscape features*

- High density of moated farmsteads.
- Spire of Thaxted church is a local landmark in the north.
- Large castle mounds at Pleshey, Gt Canfield.
- A few small historic parklands, e.g. Terling Place and New Hall Boreham.
- London Stansted Airport - extensive flat runways and large buildings.
- Various small active and disused airfields e.g. North Weald, Boreham.
- Two locally visually prominent pylon routes cross east-west in close proximity north of Thaxted, and another route runs north-south between Braintree and Chelmsford.
- Sand and gravel pits near Boreham and Chigwell St James.
- Small irrigation reservoirs are common.

### *Landscape Condition*

- The condition of the hedgerows and woodlands overall is moderate. In some parts many hedges have been lost, or are very fragmented. In others, such as around Terling they are well managed.
- Localised erosion of character occurs due to sand and gravel workings.
- The condition of the small settlements overall is good. However, some farmsteads have large visually intrusive modern sheds and/or conifer planting out of character.

### *Past, Present and Future Trends for Change*

- The landscape was subject to early enclosure and then evolved gradually.
- However, significant change has occurred since the Second World War with rationalisation of field pattern and loss of hedgerows associated with agricultural intensification. This is now considered to have peaked.
- Future trends for change may include increasing urban and transportation developments especially associated with the major road corridors. This may include pressure related directly or indirectly to Stansted Airport expansion and potential growth area in RPG9.
- The main influence on the landscape will probably continue to be agricultural. Pressures could include larger farm buildings, irrigation reservoirs, forestry and various recreational uses near urban areas. Equally changes in the agricultural subsidy regime could bring opportunities for conservation and restoration of hedgerow pattern, and improved management of woodlands.



**CENTRAL ESSEX FARMLANDS (B1)  
SENSITIVITY EVALUATION**

TYPE/SCALE OF DEVELOPMENT/CHANGE	KEY LANDSCAPE SENSITIVITY AND ACCOMMODATION OF CHANGE ISSUES	LANDSCAPE SENSITIVITY LEVEL
1. Major urban extensions (>5 ha) and new settlements	<ul style="list-style-type: none"> <li>• Moderate intervisibility.</li> <li>• Integrity of hedgerow and woodland pattern.</li> <li>• Tranquil character away from existing major road corridors/Stansted.</li> <li>• Distinctive settlement pattern/form.</li> </ul> <p><i>Possible opportunities for landscape enhancement in areas of poorer landscape condition and/or weaker strength of character e.g. westside of Chelmsford, northside of Boreham, east of Hatfield Peveral. Could create new landscape frameworks that respect traditional character/pattern of hedgerows, woodlands and linear greens in settlements.</i></p>	M
2. Small urban extensions (<5 ha)	<ul style="list-style-type: none"> <li>• Moderate intervisibility of the landscape.</li> </ul> <p><i>Possible opportunities to improve some existing visually poor urban edges.</i></p>	L
3. Major transportation developments/improvements	<ul style="list-style-type: none"> <li>• Woodland/hedgerow pattern.</li> <li>• Irregular grain of the landscape.</li> <li>• Tranquil character away from existing major road corridors/Stansted.</li> </ul> <p><i>Selection of appropriate route alignments and responding to woodland form/pattern in design of mitigation planting is critical.</i></p>	M
4. Commercial/warehouse estate/port development	<ul style="list-style-type: none"> <li>• Moderate intervisibility of the landscape.</li> <li>• Integrity of hedgerow and woodlands pattern.</li> </ul> <p><i>Appropriate siting, massing, form and colour as well as strong landscape frameworks respecting traditional character are important.</i></p>	M
5. Developments with individual large/bulky buildings	<ul style="list-style-type: none"> <li>• Moderate intervisibility.</li> </ul>	M
6. Large scale 'open uses'	<ul style="list-style-type: none"> <li>• Integrity of hedgerow pattern.</li> <li>• Woodland shape and character.</li> <li>• Moderate intervisibility.</li> </ul>	M
7. Mineral extraction/waste disposal	<ul style="list-style-type: none"> <li>• Integrity of hedgerow and woodland pattern.</li> <li>• Moderate intervisibility.</li> <li>• Tranquil character away from existing major road corridors/Stansted.</li> </ul>	M
8. Incremental small scale developments	<ul style="list-style-type: none"> <li>• Character and setting of small settlements/farmsteads.</li> <li>• Distinctive character of the lanes.</li> </ul>	M
9. Utilities development, i.e. masts, pylons	<ul style="list-style-type: none"> <li>• Moderate intervisibility of the landscape.</li> <li>• Tranquil away from existing major road corridors/Stansted.</li> </ul>	M
10. Decline in traditional countryside management	<ul style="list-style-type: none"> <li>• Hedgerow condition/pattern.</li> <li>• Woodland condition.</li> </ul>	M

Note:

(a) *Some areas in good condition and/or with strong strength of character, e.g. Terling/Fairstead area would have a high sensitivity to most types of development/change.*

Table to be read in conjunction with paragraphs 1.4.15 – 1.4.17