

Hadleigh Neighbourhood Plan

Landscape and Biodiversity Evaluation 2022

Project No:	Report:	Date:
005/22	Final	21/04/22
Prepared by:	Checked:	Date:
Ellen Shailes BSc Hons	Simone Bullion BSc Hons, PhD, MCIEEM	21/04/22



Prepared by:
SWT Trading Ltd
Brooke House
Ashbocking
Ipswich
Suffolk IP6 9JY

Prepared for:
Neighbourhood Plan Working Group
Hadleigh Town Council

DISCLAIMER

This report has been compiled in accordance with BS 42020:2013 Biodiversity - Code of practice for planning and development, as has the survey work to which it relates.

The information, data, advice and opinions which have been prepared are true, and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

This survey was carried out and an assessment made of the site at a particular time. Every effort has been made to date to provide an accurate assessment of the current situation, but no liability can be assumed for omissions or changes after the surveys have taken place.

It is our policy to submit any biological records to the Suffolk Biodiversity Information Service, in accordance with BS42020 (6.4.7). We will do this 3 months after the submission of this report. If you wish to discuss this, please contact us within this time period.

Executive Summary

SWT Trading Ltd: Ecological Consultants, the consultancy of Suffolk Wildlife Trust, was instructed by Hadleigh Town Council to undertake a landscape and ecological evaluation of the parish as part of their review of the existing Neighbourhood Plan. This document seeks to provide the Neighbourhood Plan Working Group with an evaluation of landscape character and highlight specific habitats, species and associated ecological networks as a rich source of biodiversity.

There are four principal landscape character types within the parish of Hadleigh, with the main types being 'Rolling Valley Farmlands' and 'Ancient Plateau Claylands'. Ancient Estate Claylands and Ancient Rolling Farmlands are also represented. Overall, these landscape character types help define the different habitats across the parish and also the species within them. A fifth Landscape Character Type: 'Valley Meadow Lands' is represented as a very small area on the southern boundary of the parish along the River Brett.

One statutory designated site lies partly within the parish, Hintlesham Woods SSSI, part of which is an RSPB nature reserve. There are also nine non-statutorily designated sites within or on the parish boundary, many of which are designated because they are ancient woodlands, including Coram Street Woods County Wildlife Site (CWS), Fenn's Grove CWS, Tom's/Broadoak Woods CWS and Raydon Great Wood CWS. The amount of ancient woodland habitat within the parish is particularly notable.

Ten Priority Habitats have been identified within the parish. Three are well distributed across the parish: Lowland Deciduous Woodland, Hedgerows and Ponds. Wet Woodland exists along the River Brett to the west of Hadleigh town and there is also an area of Wood Pasture and Parkland associated with Holbecks Park. Areas of Lowland Dry Acid Grassland occur surrounding the Broom Hill Wood CWS and there is also a small area of Coastal and Floodplain Grazing Marsh. Other areas of Priority Habitat such as Fen and Traditional Orchard will be present but could not be assessed fully due to lack of access.

Across the Parish a range of protected and Priority species have been recorded including bats, otter, water vole, hazel dormouse, hedgehog, great crested newt, common lizard, grass snake, several Priority bird species including turtle dove and also Priority invertebrate species.

The River Brett and the Hadleigh Railway Walk CWS and their associated habitats contribute significantly to the ecological network of Hadleigh parish. The hedgerow network and other features also provide local ecological connectivity.

Development Management guidance for any new developments within the area covered by this Neighbourhood Plan should seek to protect existing landscape and ecological assets and restore, enhance and reconnect the ecological network.

Contents

1 Introduction	
1.1 Brief and Terms of Reference	4
1.2 Parish Location and Statistics	4
2. Planning and Development Context	
2.1 Localism Act (2011)	5
2.2 National Planning Policy Framework	5
2.3 Babergh Local Plan (including Emerging Joint Local Plan)	6
2.4 Biodiversity Net Gain	7
3. Methods	
3.1 Field Survey	7
3.2 Desktop Survey	7
3.3 Evaluation of Landscape and Biodiversity Assets	8
4. Evaluation of Landscape Assets	
4.1 Suffolk Landscape Character Assessment	8
4.2 The Significance of the Landscape	17
5. Evaluation of Wildlife and Ecological Assets	
5.1 Statutory designated sites for Biodiversity	17
5.2 Non-statutory designated sites	19
5.3 Biodiversity Action Plans and Priority habitats	28
5.4 Suffolk Priority Habitats in Hadleigh	29
5.5 Other habitats of note in Hadleigh	41
5.6 Suffolk Priority Species in Hadleigh	41
5.7 Built Environment and Associated Habitats	42
5.8 Ecological Networks and Connectivity	43
5.9 The Significance of Wildlife and Ecological Assets	45
6. References	46
Appendices	47

1. Introduction

1.1 Brief and Terms of Reference

SWT Trading Ltd: Ecological Consultants, the consultancy of Suffolk Wildlife Trust, was instructed by Hadleigh Town Council to undertake a landscape and ecological evaluation of the parish as part of their Neighbourhood Plan.

Hadleigh Town Council made an application to Babergh District Council in accordance with the Neighbourhood Planning (General) Regulations 2012, to designate a Neighbourhood Area in June 2015¹. The Civil Parish of Hadleigh, within its formal parish boundary, is the 'Neighbourhood Area' for the purposes of the Plan.

Work has now restarted (since February 2021) on preparing the Hadleigh Neighbourhood Plan.

The Hadleigh Town Council planning advisory committee identified six key policy theme areas including:

1. Housing needs/growth
2. High St & Tourism
3. Business
4. Open Spaces & Sports Facilities
5. Natural Environment
6. Traffic, Parking & Sustainable Movement

This report will provide the Hadleigh Town Council planning advisory committee with an evaluation of landscape character across the parish and in particular, highlight specific habitats and associated ecological networks within this landscape as a rich source of biodiversity.

1.2 Parish Location and Statistics

Hadleigh is a market town located in the south of the county within Babergh District, 10 kilometres to the west of Ipswich. It covers roughly 1,724 hectares and its central point grid reference is close to TM 033 427. The parish also shares boundaries with the Suffolk civil parishes of Aldham, Hintlesham, Raydon, Layham, Kersey, Polstead, Semer and Whatfield.

The Babergh Local Plan states that Hadleigh is the second largest settlement in Babergh District, with a population of 7,000. The parish has a history of ancient settlement with evidence of occupation in the Domesday Book, where the place is described under the name Hetlega. Elsewhere the land is farmed, with both arable and some grazing land present along the river valleys. A series of County Wildlife Sites, many of which represent ancient woodlands, are a particular feature of the parish.

¹ [Hadleigh Neighbourhood Plan – Hadleigh Town Council](#)

2. Planning and Development Context

An outline of elements of the current planning system and associated strategic documents will help to place this present evaluation in context:

2.1 Localism Act (2011)

The Department of Communities and Local Government promoted the Localism Act (2011)². The subsequent Neighbourhood Planning (General) Regulations (2012) provide the statutory framework for Neighbourhood Development Plans. These allow communities to establish the general planning policies for the development and use of land in a neighbourhood. 'Neighbourhood Plans allow local people to get the right type of development for their community, but the plans must still meet the needs of the wider area'.

2.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) is statutory guidance published by the Ministry of Housing, Communities and Local Government (2021), which provides national planning policy³.

Of particular relevance to this project are Paragraphs 174, 175 and 179, under Chapter 15 'Conserving and Enhancing the Natural Environment', which states

174. Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate

² <http://www.legislation.gov.uk/ukpga/2011/20/contents/enacted>

³ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

175. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
179. To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity

2.3 Babergh Local Plan (including reference to emerging Babergh-Mid Suffolk Joint Local Plan)

The emerging Babergh and Mid Suffolk Joint Local Plan is in its development stages, with the Pre-Submission (Reg 19) Document submitted in November 2020⁴. This will replace the existing Babergh Local Plan (2006) and Babergh Local Plan 2011-2031 Core Strategy and Policies (February 2014)⁵.

Relevant existing 'saved' policies from the Local Plan 2006 and also the Core Strategy 2014 documents include:

Core strategy Policy CS14: Green infrastructure

Core strategy Policy CS15: Implementing Sustainable Development in Babergh

Local Plan Policy: CR02: AONB Landscape

Local Plan Policy: CR08: hedgerows

The documents are to be superseded by the following policies proposed in the Pre-Submission Document (November, 2020):

- Strategic policy SP09 – Enhancement and Management of the Environment
- Local Policy LP18 – Biodiversity & Geodiversity
- Local Policy LP19 – Landscape is also applicable with regards to protecting and enhancing landscape character.
- Local Policy LP20 – Area of Outstanding Natural Beauty

⁴ <https://www.babergh.gov.uk/assets/Strategic-Planning/JLPExamination/CoreDocLibrary/A-SubmissionDocs/A01-Part-1-Objective-and-Strategic-Policies-Part-2-Local-Policies.pdf>

⁵ <https://www.babergh.gov.uk/assets/Strategic-Planning/Babergh-Core-Strategy/CORE-STRATEGY-AND-POLICIES-FINAL-Feb-2014.pdf>

The Joint Local Plan was submitted for examination to the Secretary of State for Housing, Communities and Local Government in March 2021 and examination hearings were held throughout 2021⁶.

There are four allocations in the emerging Joint Local Plan for Hadleigh:

LA028 – Land northeast of Frog Hall Lane, Hadleigh

A large allocation for 600 dwellings and 5.5ha employment land.

LA114 – Land north of Red Hill Road/Malyon Road, Hadleigh

Approximately 75 dwellings.

LA027 – Former Babergh District Council Office, Hadleigh

Approximately 50 dwellings.

LA115 – Angel Court, Angel Street, Hadleigh

Approximately 21 dwellings.

2.4 Biodiversity Net Gain

The Environment Act 2021, which received Royal Assent on 9 November 2021, mandates biodiversity net gain and is likely to become law in 2023. The Environment Act 2021 set out an approach to biodiversity net gain which includes⁷:

- Minimum 10% net gain required for planning applications
- Habitat secured for a minimum 30 years
- The mitigation hierarchy of avoidance, mitigation and compensation still applies
- Net gain must be measurable using the Biodiversity Metric (3.0 being the latest version) designed by Natural England

Defra is currently consulting on the details of biodiversity net gain regulation and implementation in order to determine how net gain will work in practice.

3. Methods

3.1 Field Survey

A 'Phase 1 type' field survey and ecological audit of the parish was undertaken on the 1st February and 15th March. The objectives of the field survey were to investigate and record land use, habitat types and notable plant and animal species and take digital images to illustrate these features. Using public highways, bridleways and footpaths it was possible to view and comment upon all but a small percentage of the parish land area.

⁶ [New Joint Local Plan homepage » Babergh Mid Suffolk](#)

⁷ [Biodiversity net gain | Local Government Association](#)

3.2 Desktop Survey

A variety of existing source material was consulted including:

- Suffolk County Council website and other documents
- Babergh District Council website and other documents
- Suffolk Biodiversity Information Service website and databases⁸
- The MAGIC website (provides geographic information about the natural environment from across a range of government sources) including Sir Dudley Stamp 1933-1949 Land Use Inventory⁹
- Suffolk Hedgerow Survey – County Report (2012)¹⁰
- Suffolk Pond Survey (1999)¹¹

3.3 Evaluation of Landscape and biodiversity Assets

The descriptions and evaluation that follow in the report draw on information collected during the field and desktop surveys. For convenience and clarity, elements concerned with the wider landscape are considered first in Section 4. These are then followed in Section 5 by wildlife elements, from protected sites through to wider ecological networks habitats.

However, these two sections should be considered together as there is integration of significant landscape and wildlife elements, resulting in a network of landscape and wildlife features.

4. Evaluation of Landscape Assets

4.1 Suffolk Landscape Character Assessment

In 2008, Suffolk County Council completed a project to describe landscapes throughout Suffolk in detail and assess what particular character and qualities make up the different landscape areas of the county. This is known as the Level 2 Suffolk Landscape Character Assessment (LCA)¹². The guidance required the preparation of landscape character assessments in order to review and/or replace local landscape designations. The results of these assessments could then be used as supplementary planning guidance and to help produce landscape management guidelines.

Suffolk County Council worked in partnership with the Living Landscapes Project based at Reading University, private consultants and all District and Borough Councils in Suffolk, using methodology in which discrete units of broadly homogeneous land were identified according to a set of physical and cultural characteristics. These characteristics were defined by four principal attributes: physiography, ground type, landcover and cultural pattern, which in turn were derived from six mappable datasets: relief, geology, soils, tree cover, farm type and settlement. Application

⁸ [Suffolk Biodiversity Information Service | Sharing information about Suffolk's wildlife \(suffolkbis.org.uk\)](http://suffolkbis.org.uk)

⁹ [Magic Map Application \(defra.gov.uk\)](http://defra.gov.uk)

¹⁰ Suffolk Hedgerow Survey 1998-2012, Guy Ackers, Suffolk Coastal District Council, Greenprint Forum, 2012

¹¹ Sibbett, N. (1999) The Distribution and Abundance of Ponds in Suffolk. No. 333 English Nature Reports. English Nature, Peterborough

¹² <https://suffolklandscape.org.uk/map/>

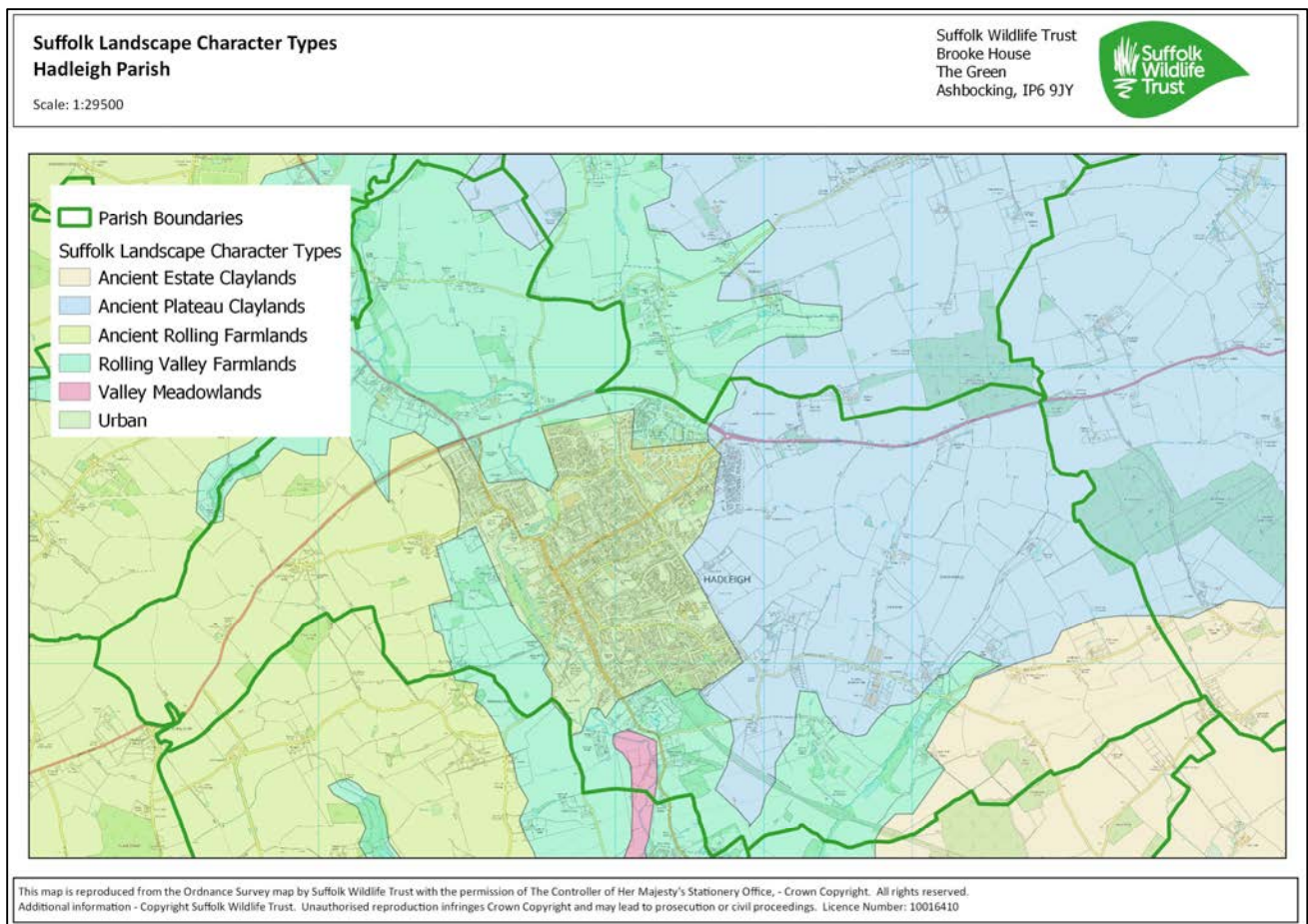
of this methodology maintained a consistent approach across Suffolk. There are five landscape character types identified in Hadleigh parish including:

- **Ancient Rolling Farmlands**
- **Ancient Plateau Claylands**
- **Ancient Estates Claylands**
- **Rolling Valley Farmlands**
- **Valley Meadowlands**

For each of these Landscape Character Types, Suffolk County Council has produced written guidance involving detailed descriptions of:

- key characteristics
- sensitivity to change
- key forces for change
- development management guidelines
- land management guidelines

Figure 1: Suffolk Landscape Character Types



SCC notes highlight that the guidance documents have been written principally to address the needs of development management. That is, to provide a summary of the forces that have been and are at work in the landscape and the key forces for change operating in the landscape at the time of writing.

However, the caveat is added that guidance cannot be considered to be definitive for a particular site, nor is it exhaustive. Rather it is intended to give a clear indication of the issues raised and principles to be followed when dealing with a particular type of development.

This evaluation for the Neighbourhood Plan therefore distils the essence of the information provided - as it applies to Hadleigh - as a guide for any future development here. Much of the discussion on development guidance is taken verbatim from the documents, but linkages and comments are added that make it relevant to this parish.

4.1.1 Ancient Rolling Farmlands

This landscape character type covers the west of the parish of Hadleigh and is particularly associated with Coram Street as it heads west to Hadleigh Heath. This landscape type occurs here in South Suffolk across a large area, stretching from the River Brett at Hadleigh across to the Stour Valley in the west. It is a landscape of rolling claylands with river valleys, often with parcels of ancient woodland, species-rich hedgerows and ditches. The main soil type is chalky clay formed in the great Anglian Glaciation, with more varied soil types formed along river valleys.

Key characteristics of this landscape type as they refer to Hadleigh are:

- Rolling arable landscape
- Random field pattern of ancient enclosure is retained
- Scattered ancient woodlands with oak, ash and field maple
- Network of winding lanes and paths, often associated with hedgerows

Key potential changes and Development Management guidance related to this landscape type:

- Expansion of garden curtilage: management is required to ensure that new or expanded curtilage fits into the local context, with appropriate boundary fencing or hedging.
- Change of land use to horse paddocks: Design, layout and stocking rates should be managed where possible to limit impacts to landscape and ecology. Screening with planting should be considered, as well specifying fencing types, and location of shelter and storage areas. Historic field patterns should be maintained where possible.
- Impact of deer on the condition of woodland cover: Large-scale deer control should be supported and individual woodlands may require deer fencing. New woodland and hedgerow plantings, including for screening and mitigation schemes, will require effective protection from deer to support their establishment.
- Settlement expansion eroding characteristic form and vernacular styles: Development should reflect the local settlement pattern, as ribbon development can have considerable landscape impacts.
- Conversion and expansion of farmsteads for residential and other uses: Unless the site is well hidden, it may be necessary to impose clear conditions relating to lighting, design and finishes, the extent of garden curtilage and how this is screened from the wider landscape.
- Large scale agricultural buildings in open countryside: Choices relating to siting, form, orientation and colour will mitigate impacts. Siting should relate to existing clusters of buildings, with new planting used to mitigate landscape impacts ensuring long-term management of planting is secured via planning condition.
- Other development: Opportunities to create landscape enhancement through hedgerow planting should be sought, in order to compensate for landscape impacts.



Typical view across this landscape character type – View west from Broom Hill CWS

Land Management guidelines for this Landscape Type relevant to Hadleigh include:

- Reinforce the historic pattern of regular boundaries
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows
- Maintain and restore greens commons and tyes
- Maintain and increase the stock of hedgerow trees
- Maintain the extent, and improve the condition, of woodland cover with effective management
- Maintain and restore the stock of moats and ponds in this landscape

4.1.2 Ancient Plateau Claylands

This landscape character types forms part of the west of the parish, mostly south of Ipswich road. This landscape character type occurs here in the east of the Hadleigh parish and stretches northeast across a large area to Stowmarket, intersected with river valleys. It is a landscape of gently rolling arable on clay soils, with scattered ancient woodlands. The boulder clay of this landscape was deposited by the retreating ice-sheet during the Anglian Glaciation.

Key characteristics of this landscape type as they refer to Hadleigh are:

- Gently rolling arable landscape on clay soils
- Random field pattern of ancient enclosure retained
- Scattered ancient woodland with oak, lime, cherry, hazel and hornbeam
- Networks of winding lanes and paths, often associated with hedges.



Typical view across this landscape character type – View southwest from footpath near Hintlesham Woods SSSI

Key potential changes and Development Management guidance related to this landscape type:

- Expansion of garden curtilage: management is required to ensure that new or expanded curtilage fits into the local context, with appropriate boundary fencing or hedging.
- Change of land use to horse paddocks: Design, layout and stocking rates should be managed where possible to limit impacts to landscape and ecology. Screening with planting should be considered, as well specifying fencing types, and location of shelter and storage areas. Historic field patterns should be maintained where possible.
- Impact of deer on the condition of woodland cover: Large-scale deer control should be supported and individual woodlands may require deer fencing. New woodland and hedgerow plantings, including for screening and mitigation schemes, will require effective protection from deer to support their establishment.
- Settlement expansion eroding characteristic form and vernacular styles: Development should reflect the local settlement pattern, as ribbon development can have considerable landscape impacts.
- Conversion and expansion of farmsteads for residential and other uses: Unless the site is well hidden, it may be necessary to impose clear conditions relating to lighting, design and finishes, the extent of garden curtilage and how this is screened from the wider landscape.
- Large scale agricultural buildings in open countryside: Choices relating to siting, form, orientation and colour will mitigate impacts. Siting should relate to existing clusters of buildings, with new planting used to mitigation landscape impacts ensuring long-term management of planting is secured via planning condition.

- Large scale wind turbine development: Opportunities to create landscape enhancement through hedgerow planting should be sought, in order to compensate for landscape impacts.

Land Management guidelines for this Landscape Type relevant to Hadleigh include:

- Reinforce the historic pattern of sinuous field boundaries
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows
- Maintain and restore greens and commons
- Maintain and increase the stock of hedgerow trees
- Maintain the extent, and improve the condition, of woodland cover with effective management, especially if this can be economically viable
- Maintain and restore the stock of moats and ponds in this landscape

4.1.3 Ancient Estate Claylands

There is a small area of this landscape character type to the southeast of the parish near Tom's/Broadoak Wood County Wildlife Site.

Key characteristics of this landscape type as they refer to Hadleigh are:

- Dissected Boulder Clay plateau
- Organic field pattern
- Ancient semi-natural woodland

Key potential changes and Development Management guidance related to this landscape type:

- Expansion of garden curtilage: management is required to ensure that new or expanded curtilage fits into the local context, with appropriate boundary fencing or hedging.
- Change of land use to horse paddocks: Design, layout and stocking rates should be managed where possible to limit impacts to landscape and ecology. Screening with planting should be considered, as well specifying fencing types, and location of shelter and storage areas. Historic field patterns should be maintained where possible.
- Impact of deer on the condition of woodland cover: Large-scale deer control should be supported and individual woodlands may require deer fencing. New woodland and hedgerow plantings, including for screening and mitigation schemes, will require effective protection from deer to support their establishment.
- Settlement expansion eroding characteristic form and vernacular styles: Development should reflect the local settlement pattern, as ribbon development can have considerable landscape impacts.
- Conversion and expansion of farmsteads for residential and other uses: Unless the site is well hidden, it may be necessary to impose clear conditions relating to lighting, design and finishes, the extent of garden curtilage and how this is screened from the wider landscape.
- Large scale agricultural buildings in open countryside: Choices relating to siting, form, orientation and colour will mitigate impacts. Siting should relate to existing clusters of buildings, with new planting used to mitigate landscape impacts ensuring long-term management of planting is secured via planning condition.
- Other development: Opportunities to create landscape enhancement through hedgerow planting should be sought, in order to compensate for landscape impacts.



Typical view across this landscape character type – View east from Clay Lane

Land Management guidelines for this Landscape Type relevant to Hadleigh include:

- Reinforce the historic pattern of sinuous field boundaries
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows
- Maintain and restore greens and commons
- Maintain and increase the stock of hedgerow trees
- Maintain the extent, and improve the condition, of woodland cover with effective management, especially if this can be economically viable
- Maintain and restore the stock of moats and ponds in this landscape

4.1.4 Rolling Valley Farmlands

This landscape character type lies to the east of the Hadleigh urban area, following the River Brett. It is a landscape of gentle valleys with some complex, steep slopes. The main soil type is well drained loamy soils.

Key characteristics of this landscape type as they refer to Hadleigh are:

- Gentle valleys sides with some steep slopes
- Deep well drained loamy soils
- Organic field pattern with smaller field on the plateau
- Scattered parks
- Small ancient woodlands on valley fringes
- Sunken lanes

Key potential changes and Development Management guidance related to this landscape type:

- Exaggerated visual impact of the height of buildings and structures: Valley side landscapes mean new buildings can have significant impacts and engagement with applications at the earliest stage will ensure the best outcomes.
- Settlement form and expansion: large-scale settlement expansion should be confined to the plateau as expansion in these areas is likely to adversely impact landscape character.
- Large scale agricultural buildings on or near valley sides: Choices relating to siting, form, orientation and colour will mitigate impacts. However, siting in these areas could have significant visual impact and should be located on the plateau.
- Barn conversions and extensions: Careful consideration should be given to form and style in order to mitigate impacts. Siting should relate to existing clusters of buildings, with design, finishes, curtilage extensions, lighting and screening carefully considered as well.
- Expansion of garden curtilage: management is required to ensure that new or expanded curtilage fits into the local context, with appropriate boundary fencing or hedging.
- Change of land use to horse paddocks: Design, layout and stocking rates should be managed where possible to limit impacts to landscape and ecology. Screening with planting should be considered, as well specifying fencing types, and location of shelter and storage areas. Historic field patterns should be maintained where possible.
- Impact of deer on the condition of woodland cover: Large-scale deer control should be supported and individual woodlands may require deer fencing. New woodland and hedgerow plantings, including for screening and mitigation schemes, will require effective protection from deer to support their establishment.
- Mineral extraction or post working uses: Careful design and mitigation, as well as management and restoration of sites can mitigate negative impacts.

Land Management guidelines for this Landscape Type relevant to Hadleigh include:

- Reinforce the historic pattern of sinuous field boundaries
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows
- Maintain and increase the stock of hedgerow trees
- Increase the area of woodland cover; siting should be based on information from the Historic Landscape Characterisation and in consultation with the Archaeological Service
- Maintain and restore the stock of moats and ponds in this landscape



Typical view across this landscape character type – View from Hook Lane

4.1.5 Valley Meadowlands

Found principally in the floors of the river valleys of south and south-east Suffolk, Valley Meadowlands are made up of seasonally wet clays overlying alluvial deposits and peat. The damp nature of the land and tree-lined wet dykes support good meadow habitat, although much of this is now used as animal pasture rather than for hay production. Settlement tends to be limited to occasional farmsteads and any woodland tends to be alder carr in the wetter areas. However, in the 20th century plantations of poplar and cricket-bat willows were introduced.

A small area of this low-lying landscape is found in the south of the parish along the River Brett.

Key characteristics of this landscape type as they refer to Hadleigh are:

- Flat landscapes of alluvium or peat on valley floors
- Grassland divided by a network of drainage dykes
- Cattle grazed fields
- Unsettled

Key potential changes and Development Management guidance related to this landscape type:

- Conserve the setting of this landscape: Construction of new buildings in this landscape can easily have negative impacts to the setting. Development should only be permitted if high standards of design and mitigation are implemented.

- Mitigate the impacts of horse grazing: subdivision of land into small horse paddocks can have a significant negative impact on the landscape as well as impacted the ecology. Design, layout and stocking rates should be managed where possible to limit impacts to landscape and ecology. Screening with planting should be considered, as well specifying fencing types, and location of shelter and storage areas. Historic field patterns should be maintained where possible.

Land Management guidelines for this Landscape Type relevant to Hadleigh include:

- Support the continuation of the traditional economic activities
- Restore and retain the pattern of drainage
- Maintain levels of grassland
- Encourage and support appropriate planting and management of woodlands

4.2 The Significance of the Landscape for the Neighbourhood Plan

The parish does not lie within an Area of Outstanding Natural Beauty (AONB), however the parish is close to the Dedham Vale AONB and has many of its characteristics including ancient lanes and hedges, with small pockets of ancient woodland set in a largely arable landscape¹³. The main landscape character type within the parish is rolling valley farmland, which occurs where the River Brett dissects the parish creating a rolling landscape with high valley sides. Ancient plateau clayland is the main landscape type to the east of the River Brett, which represents a flat agricultural landscape which spreads east from the sloping River Brett valley. There are a number of ancient woodlands throughout the parish which are statutory and non-statutory designated sites, these islands of wildlife habitat are linked with species-rich and ancient hedgerows and other priority habitats in places.

As well as adherence to Local Plan Policy, development management guidance for any new developments within the area covered by this Neighbourhood Plan should consistently reflect the Development Management and Land Management Guidelines drawn up within the Suffolk Landscape Character Assessment.

5. Evaluation of Wildlife Assets

5.1 Statutory designated sites for biodiversity

The quality of the natural environment in Suffolk is reflected by the extent of its land area with statutory protection for its wildlife. 8% of the county has national designation as Sites of Special Scientific Interest (SSSI), reflecting the importance of habitats and species found here. Many of these areas are also of European or international importance, with designations as Special Areas for Conservation (SAC), Special Protection Areas (SPA) and Ramsar Site. The locations of these sites as they relate to Hadleigh parish are provided in Appendix 1¹⁴.

¹³ [Features and Habitats – Dedham Vale AONB \(dedhamvalestourvalley.org\)](http://dedhamvalestourvalley.org)

¹⁴ <https://designatedsites.naturalengland.org.uk>

5.1.1 Site of Special Scientific Interest

Hintlesham Woods SSSI

Part of the Hintlesham Woods SSSI lies within the parish of Hadleigh. Hintlesham Woods SSSI comprises a number of parcels of Ancient Woodland including Wolves Wood, Keeble's Grove, Ramsey Wood, Hintlesham Little Wood and Hintlesham Great Wood. The site is an RSPB nature reserve and is important for a range of woodland species. The woodlands are one of the largest remaining areas of ancient, coppiced woodland in Suffolk and have been in existence since at least the 12th century. The tree communities reflect the variation in soil types which are boulder clay with glacial sands and drift in some places. Tree species include English oak, ash, hazel, field maple, hornbeam, wild cherry and small-leaved lime. The understorey species include spindle, wild crab apple, buckthorn, alder buckthorn and wild service tree. The ground flora consists of bramble, dog's mercury, bluebells, primrose, wood anemone and wood sorrel. Other notable plant species recorded on site include green helleborine, violet helleborine, herb-paris and bird's-nest orchid.

Hintlesham Woods SSSI also has a number of other records of protected and Priority species, including hazel dormouse and great crested newt. Breeding birds species recorded on site include marsh tit, bullfinch and nightingale. Priority species invertebrates recorded on site include whiter admiral and white-letter hairstreak butterflies.



Annually mown area within Wolves Wood, with coppiced woodland in the background – part of Hintlesham Woods SSSI

5.2 Non-statutory designated sites for biodiversity

5.2.1 County Wildlife Sites

County Wildlife Sites (CWSs) are areas known to be of county or regional importance for wildlife. They have a key role in the conservation of Suffolk's biodiversity and are important links in Suffolk's 'Living Landscape', as described on the Suffolk Wildlife Trust website¹⁵. CWS designation is non-statutory but is recognition of a site's high value for biodiversity. Suffolk currently has over 900 County Wildlife Sites representing approximately 2.6% of the county's land area.

CWSs have been identified throughout Suffolk and range from small meadows, green lanes, dykes and hedges through to much larger areas of ancient woodlands, heathland, greens, commons and marsh. Outside of areas with statutory protection (such as SSSSIs, Local and National Nature Reserves), CWSs are therefore the most important areas for wildlife in Suffolk and can support both locally and nationally threatened wildlife species and habitats.

Many County Wildlife Sites support UK Priority Habitats and Species. They complement the statutory protected areas and nature reserves by helping to buffer and maintain habitat links between these sites.

It is important to note that the designation of a site as a CWS does not confer any new rights of access either to the general public or conservation organisations.

Suffolk Wildlife Trust, Suffolk County Council, Suffolk Biodiversity Information Service and Natural England manage the Suffolk County Wildlife Site system in partnership¹⁶. This CWS system involves:

- Maintaining an up-to-date database of CWSs in Suffolk. Partners and local authorities have copies of the database.
- Designating new CWSs, extending existing CWSs and modifying information held on existing sites when changes occur. New sites and site extensions are notified in accordance with selection criteria.
- Supplying information on wildlife interest of CWSs to landowners and other organisations whose work may affect CWSs. The importance of CWSs is recognised by local authorities in Suffolk and they have all developed policies that give CWSs some protection in line with national planning policy. If a CWS is likely to be affected by development the views of the CWS partners are normally sought as part of the consultation process.

CWSs are implicitly recognised by the NPPF as having a fundamental role to play in meeting overall national biodiversity targets. In the NPPF 2021 they are described as 'Locally Designated Sites'. CWS are not protected by legislation, but their importance is recognised by local authorities when considering planning applications. Under current planning policy there is a presumption against granting permission for development that would have an adverse impact on a CWS.

Suffolk Wildlife Trust monitors planning applications for potential impacts on CWSs.

The high wildlife value of many CWSs has developed through land management practices that have

¹⁵ <https://www.suffolkwildlifetrust.org/about-us>

¹⁶ County Wildlife Site Register (17.11.2021).pdf

allowed wildlife to thrive, for example traditional and historical management such as rotational coppicing of woodland, hay cutting or grazing of grasslands. Ensuring the continuation of such appropriate management is vital to maintain the wildlife value of a site. Establishing and maintaining good working relationships with landowners and managers is therefore essential.

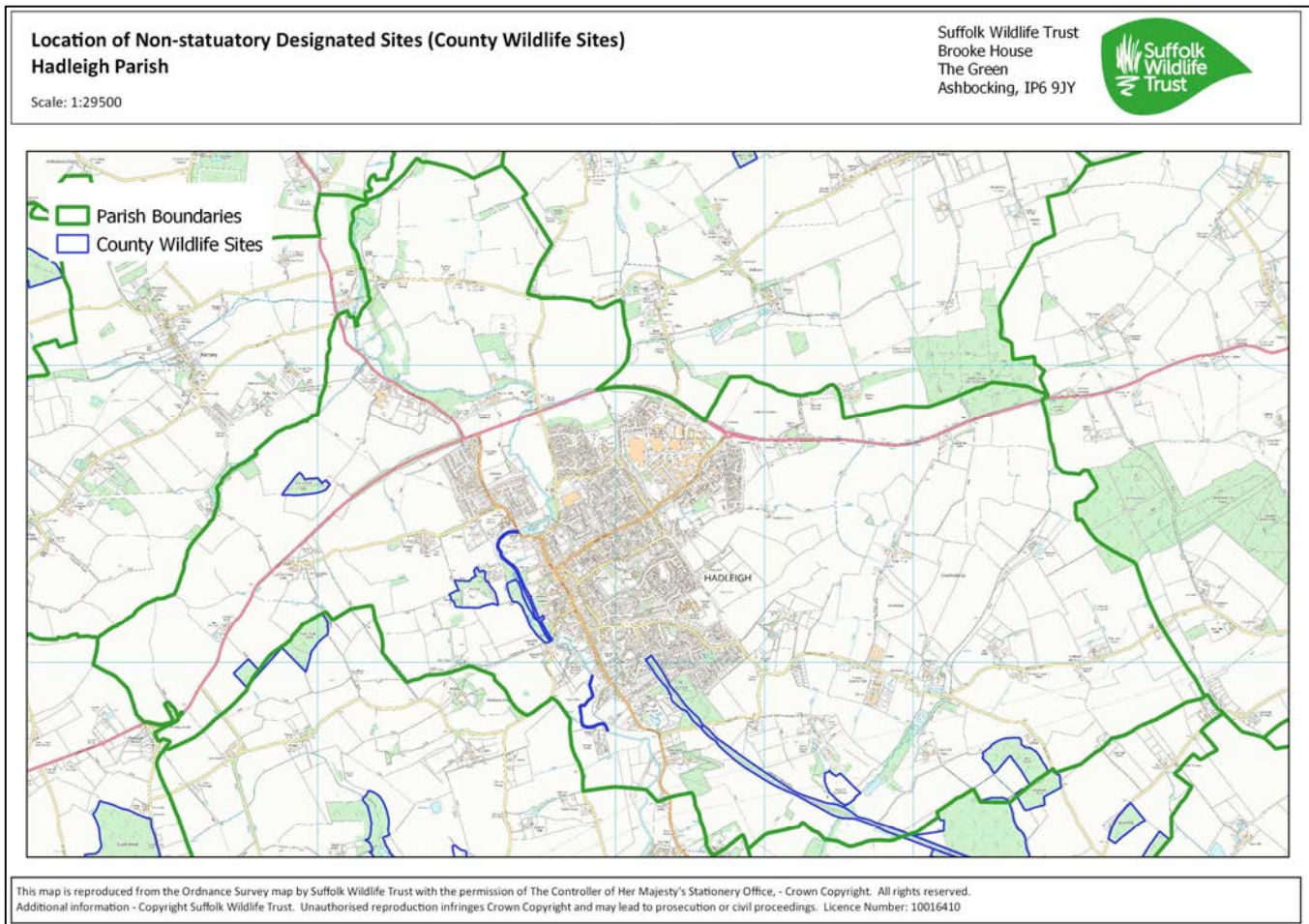
The CWS partnership appreciates the difficulties that achieving the conservation management of CWSs can present and is therefore happy to offer advice on management and on potential sources of funding. Free advice is available from Suffolk Wildlife Trust to CWS owners and managers and includes:

- Information on the wildlife and nature conservation interest of the site;
- Advice and site visits can be made to establish the best management to maintain and enhance wildlife value.

5.2.2 County Wildlife Sites in Hadleigh

There are nine County Wildlife Sites associated with Hadleigh: The locations of these sites are shown in Figure 2 below.

Figure 2: Location of non-statutory designated sites for biodiversity



Broom Hill Wood – Babergh 101: TM 979 389

3.82 ha: Lowland deciduous woodland

The site is mostly lowland deciduous woodland, with a mosaic of other habitats which add to its biodiversity value including a small area of lowland dry acid grassland and gorse scrub. There are a diverse mix of tree species on site, including sycamore, ash, oak and field maple as well as a diverse understorey of hazel, bramble, elder, blackthorn, hawthorn and honeysuckle. The ground flora has a number of ancient woodland indicator species including bluebell, moschatel and dog's mercury, which suggests that this site may have formerly supported woodland, although it is not mapped as ancient woodland in the Natural England ancient woodland inventory¹⁷.

The dense understorey in some places of gorse, bramble and elder provides suitable habitat for a range of breeding birds including linnet, chiffchaff and goldfinch. Hazel dormice were reported here in the late 1990s but there have been no recent surveys.



Broom Hill Wood CWS

Hadleigh Railway Walk – Babergh 60: TM 039 412

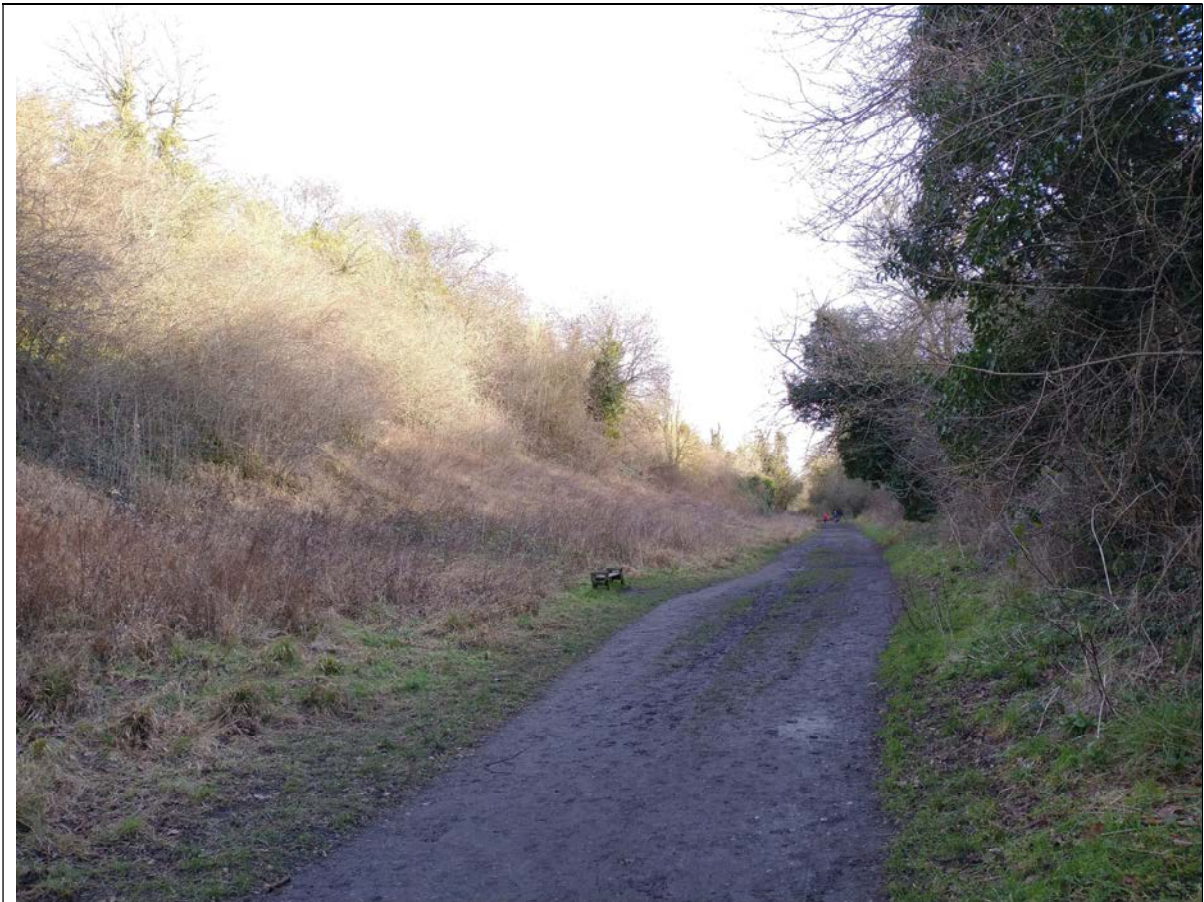
11.35 ha: Habitat mosaic

Hadleigh Railway Walk is a linear CWS which stretches about two miles along the old Hadleigh railway line, part of the CWS lies within the parish of Hadleigh. The site is well used by local people

¹⁷ [Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)

for walking, cycling and horse riding. This habitat mosaic comprises a mix of dense scrub, ancient woodland, secondary woodland, and species-rich grassland. The CWS is also important as an ecological corridor which links other important wildlife sites locally including Raydon Great Wood CWS and Valley Farm Meadow CWS.

The railway embankments have several important plant species including quaking grass, as well as ancient woodland indicator species where it passes through Raydon Great Wood CWS including barren strawberry, bluebell, dog's mercury, and primrose. Hazel dormouse have also been recorded in the CWS during a survey in the early 2000's, the habitat has been well managed since this survey and it is likely that hazel dormouse are still present on site. Woodland and dense scrub on site also provide habitat for bird species including nuthatch, siskin, and coal tit, as well as providing suitable roosting, foraging, and commuting habitat for bat species.



Hadleigh Railway Walk CWS – view southeast along old railway line

Riverside Walk Woodland – Babergh 59: TM 024 424

2.65 ha: Wet woodland

Adjacent to the River Brett to the west of the town of Hadleigh lies a section of wet woodland, which has a network of footpaths and benches for local enjoyment. The site consists of an area of alder carr to the west of the River Brett, which is dominated by alder and willow, with a sparse understorey of elder, bramble and other scrub species. The ground flora is dominated by nettle, with occasional yellow flag iris as well as species such as ground ivy and lesser celandine. Other wetland plant species have been recorded on site including wild angelica, meadowsweet, and

marsh marigold. The alder trees on site provide a food resource for bird species such as siskin, goldfinch and chaffinch. There is also a good resource of deadwood on site as well as ivy covered trees which provide suitable habitat for invertebrates, breeding birds and bat species.



Riverside Walk Woodland CWS – View north along the River Brett

River Brett (Sections) – Babergh 44: TM 987 478

3.4 ha: Riverine habitat

Two sections of the River Brett which lie within the parish of Hadleigh are designated as CWSs, the section from Bridge Street south to Duke Street and the section south of the football ground to the footbridge near the sewage works. These sections of the River Brett have been selected due to their importance for aquatic wildlife including aquatic plants which indicate good water quality including water starwort species and river water-dropwort. There are several records of water vole and otter along the river, as well as European eel and bird species including kingfisher and grey wagtail.



River Brett (Sections) CWS – View west from Bridge Street

Valley Farm Meadow – Babergh 61: TM 045 412

3.08 ha: Semi-improved neutral grassland and a small area of fen meadow

Valley Farm Meadow forms part of a wider ecological network along the Hadleigh Railway Walk CWS and is located to the south of the town of Hadleigh. Most of Valley Farm Meadow CWS is semi-improved neutral grassland, with a small area of fen meadow, poor semi-improved grassland, and scrub. The site is horse grazed which creates a uniform sward across the majority of the site. The wet areas of the site provide the most interest for wildlife with plant species recorded on site including meadowsweet, water mint, water figwort and devil's-bit scabious.

The site provides suitable habitat for reptiles and there are records of slow worm on site.



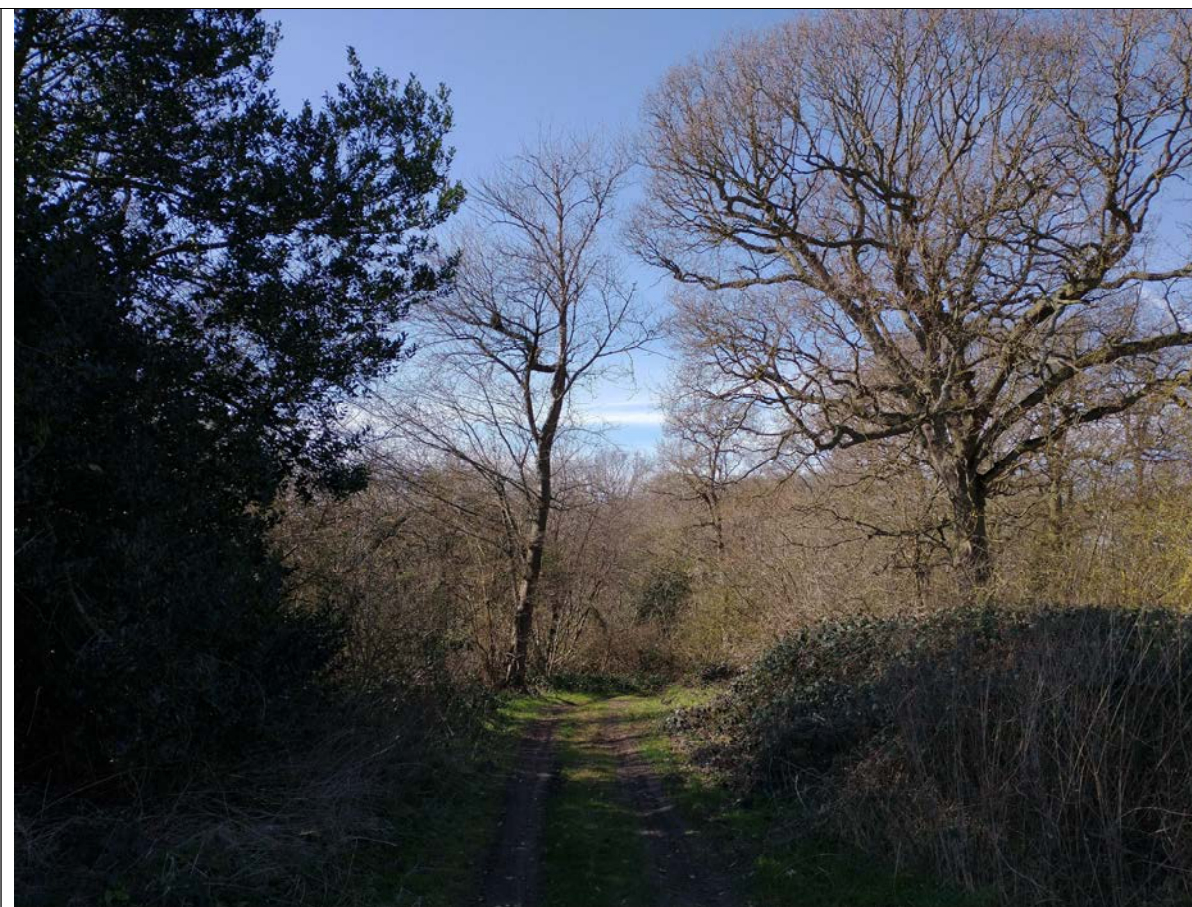
Valley Farm Meadow – View from the boardwalk north across the site.

Fenn's Grove – Babergh 57: TM 009 432

2.74 ha: Ancient woodland

Fenn's Grove consists of a small area of ancient woodland to the north of the A1071, there is no public access to the site, but the site can be viewed from a nearby public footpath. The site is listed in Natural England's ancient woodland inventory and the CWS citation states that 'Fenn's Grove is enclosed in part by a ditch and bank; a characteristic feature of ancient woodlands. Two old oak pollards, another indication of the wood's antiquity are situated on the eastern edge of the wood.' The woodland consists of a mix of oak and ash standards, with an understorey of hazel coppice, holly, elder and cherry which could be seen from the public footpath. Dog's mercury, an ancient woodland indicator, was also recorded on site.

The site provides suitable habitat for breeding birds and bat species as well as providing a resource of deadwood for invertebrate species such as stag beetle which are recorded locally.



Fenn's Grove – View from the footpath along arable field edge.

Coram Street Wood – Babergh 76: TM 009 422

7.59 ha: Ancient Woodland

Coram street wood is listed in Natural England's ancient woodland inventory, there is no public access to the site, but it can be viewed from a public footpath a short distance away. The CWS citation states that the woodland is made up of two separate areas, which are linked by a dense hedgerow of small-leaved lime. Small-leaved lime is an ancient woodland indicator, other species recorded on site include wood anemone and wood melick. There have also been several wild service trees recorded within the woodland, which is a rare ancient woodland indicator species. The most recent record of wild service tree at Coram Street Wood is from 2004. Views from the footpath suggest the site has not been impacted by damaging management such as replanting with conifer species and clear felling of areas, so likely maintains many of the features described in the CWS citation.

Raydon Great Wood – Babergh 62: TM 0540

88.32 ha: Ancient woodland

Raydon Great Wood is a large area of ancient woodland, a small section of which lies within the parish of Hadleigh to the southeast. The woodland is listed in Natural England's ancient woodland inventory and part of the wood is mapped as ancient, replanted woodland, meaning it has been felled and replanted with conifer and broadleaved tree species, but the wood still maintains ancient

woodland features including undisturbed soil and ground flora. The woodland is dissected by the Hadleigh Railway Walk CWS.

The woodland is now being managed to restore it through the removal of many of the conifer species which were planted. Management now maintains the woodland as a coppiced woodland with standards, evidence of which could be seen from the Hadleigh Railway Walk which passes through the wood. Tree species include oak, ash, field maple, birch, and limes, with a dense understorey of hazel coppice, bramble, honeysuckle and wild clematis. The ground flora includes many ancient woodland indicator species including barren strawberry, moschatel and bluebells, the rare herb-paris has also been recorded here. The woodland also supports a number of protected and Priority species including hazel dormouse, white admiral butterfly and woodland bird species including nightingale, bullfinch and marsh tit.



Raydon Great Wood CWS – View into woodland from the Hadleigh Railway Walk

Tom's/Broadoak Wood – Babergh 63: TM 058 412

11.07 ha: Ancient Woodland

Tom's/Broadoak wood is listed in Natural England's Ancient Woodland inventory. Some of the wood has historically been replanted with conifer species, however there is now evidence of recent coppice management of the woodland. There is no public access to the site, but it can be viewed from Clay Lane. Species include oak, field maple, hawthorn, hazel and honeysuckle with a ground flora on site including dog's mercury, primrose and greater stitchwort. There is a good resource of

standing and fallen deadwood, which may support stag beetles as well as breeding birds and bat species.

There are also recent records of nightingale and great crested newts within the wood, ordnance survey maps indicate there are a couple of ponds within the woodland.



Tom's/Broadoak Wood CWS – View into woodland from Clay Lane

5.3 Biodiversity Action Plans and Priority Habitats

The UK Biodiversity Action Plan (UK BAP, 1994) was the UK Government response to the 1992 International Convention on Biological Diversity. The UK BAP listed a range of habitats, plus a number of birds and species from other taxa of conservation interest. National targets and priorities were set in order to address the particular needs of those species. The list was amended in August 2007 to include additional species and habitats to reflect concerns over continuing declines. Much of the work previously carried out under the UK BAP is now focused through from country level down to local level through the creation of local biodiversity strategies. However, the UK BAP lists of priority species and habitats remain important and valuable reference sources.

In addition, Section 40 of the 2006 Natural Environment and Rural Communities Act states that 'Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. UK Priority habitats and species, listed within Section 41 of the Act, are normally taken as a good benchmark for demonstrating biodiversity duty.

In January 2014, Suffolk Biodiversity Partnership (SBP) - a consortium of over 20 organisations working for wildlife within the county - published revised statutory lists of Priority Habitats and Species occurring in Suffolk and these have been subsequently updated and amended. In a small number of cases where previously no national BAP existed, certain species are described as Suffolk Character Species to reflect their particular importance within the county.

The following section deals with the Priority Habitats that are present in Hadleigh. In most cases the habitat descriptions include Priority Species and other notable species as supporting evidence. For the majority of species, they are only referenced if they were noted during the field survey or are recent records (post 2000) held by Suffolk Biodiversity Information Service.

5.4 Suffolk Priority Habitats in Hadleigh

Of the 24 Suffolk Priority habitats ten are known to be present in Hadleigh parish:

- Lowland mixed deciduous woodland
- Wet woodland
- Wood pasture and parkland
- Hedgerows
- Ponds
- Lowland dry acid grassland
- Coastal and floodplain grazing marsh
- Fen
- Traditional orchards – shown on magic but no access was obtained as on private land
- Rivers

The Priority Habitats are described in more detail below to highlight the significance of these ecological assets within the parish. The format is in three parts:

1. General descriptions of the habitats as they relate to Suffolk
2. These are followed by descriptions of the Priority habitat as found in Hadleigh during the field survey, noting any associated UK and Suffolk Priority species
3. Finally, reference is made from the Suffolk BAPs (or other sources) to those development activities that are most likely to affect the Priority Habitat as it exists in Hadleigh

5.4.1 Lowland Mixed Deciduous Woodland

General description of this Priority Habitat in the context of Suffolk

This Priority habitat includes all broadleaved stands and mixed broadleaved and coniferous stands which have more than 80% of their cover made up of broadleaved species. It also includes patches of scrub of above 0.25 hectares forming a continuous canopy, areas of recently felled woodland and other successional types, along with the other integral features of woodland such as glades and rides. These woodlands may be ancient (where cover existed before c1600) or recent (where cover has been created since c1600). Both of these age designations may have semi-natural cover or plantation cover, depending on past management. Management can vary from coppice or coppice with standards to wood-pasture, high forest or minimum intervention. The latter, when found in

ancient semi-natural woodland, contains some of the most important wildlife assemblages of any habitat.

Lowland Mixed Deciduous Woodland Priority Habitat in Hadleigh

Ancient woodland is a significant feature of this Hadleigh parish. The woodlands are scattered across the parish and include: Hintlesham Woods SSSI, Raydon Great Wood CWS, Tom's/Broad oak Wood CWS, Fenn's Grove CWS and Coram Street Wood CWS. Broom Hill Wood CWS is not listed on the ancient woodland inventory however it has ancient woodland indicator species and is identified as Priority Habitat Lowland Mixed Deciduous Woodland on magic maps.

Hintlesham Woods SSSI is described in more detail in section 5.1.1 above. CWSs are described in more detail in section 5.2.2 above. In addition, there are several small blocks of woodland of more recent origin scattered throughout the parish.



RSPB Wolves Wood - coppice management of the ancient woodland with deer fencing

Activities and developments most likely to affect Lowland Mixed Deciduous Woodland Priority Habitat in Hadleigh

- Further fragmentation of and within the existing woodland area;
- Intensification of management between woodland fragments reduces the ecological value of edge habitats and the connectivity between woodland blocks in the landscape;
- Increasing recreational pressure within woodlands next to the urban fringe;

- Overgrazing and over-browsing by expanding deer populations changes woodland structure through reduced regeneration;
- Lack of canopy management leading to over-shading and decrease in quality of understorey and ground flora.

5.4.2 Wet woodland

General description of this Priority Habitat as described in the context of Suffolk

Wet woodlands occur on land that has waterlogged or seasonally waterlogged soils, where the water table is correspondingly high and drainage poor. They are frequently associated with river valleys, floodplains, flushes and plateau woodlands.

Typical tree species include grey willow, alder and downy birch. The habitat supports a number of important Priority species in Suffolk. These include mammals such as otter where wet woodlands are linked to the river and stream network and also various bat species, birds such as marsh tit and various scarce species of beetles and weevils.

Wet woodland Priority Habitat in Hadleigh

Wet woodland only occurs in Hadleigh at the Riverside Walk Woodland CWS and at some points along the River Brett near to Hadleigh town.

These areas are all associated with the River Brett and are dominated by alder and willow with a ground flora dominated by nettle which indicates high nutrients. Some areas within the wet woodland are more diverse with species including meadowsweet and wild angelica. The deadwood within the wet woodland in Hadleigh will likely support many key species such as stag beetle and bats species.

Activities and developments most likely to affect the Wet Woodland Priority Habitat in Hadleigh

- Further fragmentation of and within the existing woodland area;
- Intensification of management between woodland fragments reduces the ecological value of edge habitats and the connectivity between woodland blocks in the landscape;
- Activities which lead to a change in hydrology resulting in drying of the habitat;
- Activities which lead to changes in water quality, increasing nutrient input to habitats and resulting in changes in species composition;
- Increasing recreational pressure within woodlands next to the urban fringe.



Wet woodland either side of the River Brett

5.4.3 Wood pasture and Parkland

General description of this Priority Habitat as described in the context of Suffolk

Lowland wood pastures and parkland are the products of historical land management systems and represent a vegetation structure rather than being a particular plant community. Typically, this structure is one of large open-grown or high forest trees (often pollarded) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras. It can include non-native species introduced as part of a designed landscaping scheme.

Historic landscapes can provide a wealth of habitats and niches for wildlife, especially fungi, invertebrates, bats and woodland birds.

Wood pasture and Parkland Priority Habitat in Hadleigh

There is an area of wood pasture and parkland Priority habitat in Hadleigh as identified on Magic, which has been assessed during field surveys. This habitat is found at Holbecks Park which forms the grounds of Holbecks House, an 18th century country house to the west of Hadleigh town. Holbecks Park is an area of historic parkland, which has likely existed since the building of Holbecks House in the 18th century, consisting of large open-grown trees of a mix native and non-native species, including some large cypress trees. The site can be viewed from Holbecks Lane and there is evidence of veteran trees on site, some of which are protected from grazing animals by fencing. Surrounding the parkland trees is a large area of grazed grassland. There is also evidence of replanting of trees throughout the parkland.



Historic parkland at Holbecks Park

Activities and developments most likely to affect Wood Pasture and Parkland Priority Habitat in Hadleigh

- Reduction in structural and age diversity of woody species, including lack of replanting to replace lost mature/veteran trees or damage to young trees by cattle;
- Cessation of grazing by cattle or sheep leading to changes to grassland habitat;
- Unsympathetic management of the grassland through the use of fertilisers or herbicides, leading to changes in grassland flora and fungi assemblage;
- Unsympathetic tree surgery including removal of fallen deadwood or standing deadwood (unless essential for safety reasons);
- Future development resulting in additional public access and potential for tree removal for safety reasons.

5.4.4 Hedgerows

General description of this Priority Habitat in the context of Suffolk

Hedgerows are boundary lines of trees and/or shrubs, sometimes associated with banks, ditches and grass verges. Those considered ancient or species-rich or both are an important reservoir of biodiversity in the farmed landscape as well as being of cultural, historical and landscape importance. Hedges act as wildlife corridors, linking habitats of high biodiversity value such as woodland and wetland, thus enabling bats, other small mammals and invertebrates to move around under cover from predators.

Ancient hedgerows, which support a greater diversity of plants and animals than subsequent hedges, may be defined as those that were in existence before the Enclosure Acts, passed between 1720 and 1840.

Species-rich hedgerows contain five or more native woody species on average in a 30 metre length. Those which contain fewer woody species, but a rich basal flora may also be considered as important. The Hedgerow Regulations 1997 define 'important' hedgerows as those with seven woody species, or six woody species in a 30m length, plus other defined features.

Key Priority species in Suffolk which use hedges and associated grassy verges include: brown hare, grey partridge, song thrush, linnet, turtle dove, corn bunting, tree sparrow, bullfinch and various species of bats. Hibernating reptiles and amphibians and invertebrates such as white-letter hairstreak butterfly on elm hedges also all make use of this Priority Habitat.

Hedgerow Priority Habitat in Hadleigh

Hedgerow are spread across the parish, but the main concentration of species-rich and ancient hedgerows is in the western half of the parish, associated with the ancient rolling farmland landscape and Holbecks Park.

During the field surveys, it was noted that the hedgerows in the east of the parish are typically heavily managed but are moderately species rich. Recorded species include hawthorn, blackthorn, dog rose, field maple, hazel with English oak as standard trees.

Hedgerows in the west of the parish are more species-rich, some of which have signs of being ancient hedgerows, with large coppice stools within the hedgerows and ancient woodland indicator species including dog's mercury along their length. The sunken lanes within the parish (Friars Road and Hook Lane) have features of ancient hedgerows along their lengths, including large coppice stools.

Hedgerows are important for a number of Priority Species. Several bird species have been recorded in the parish that are typical of this habitat: yellowhammer, linnet, grey partridge, turtle dove and bullfinch. Hazel dormouse are also likely to use hedgerows within the parish, in particular where they are linked to areas of woodland habitat.

Hadleigh was one of the many parishes covered by the Suffolk Hedgerow Survey, 1998-2012. The 2012 report on this project shows that out of the 311 hedges surveyed for woody species:

56 contained 4 species or fewer

107 contained 5, 6 or 7 species

148 contained 8 species or more

Therefore at least 82% of the sampled hedgerow resource within the parish can be deemed species rich.

It must be noted that this summary is based on data collected in the early stages of the Suffolk Hedgerow Survey (2004) and that changes will have occurred since that time, both positive and negative. However, it remains broadly true that the hedgerows in the parish are an important reservoir for wildlife and evidence from the recent field survey of the parish found many species-rich and ancient hedgerows across the parish.



Hedgerow in the west of the parish

Activities and developments most likely to affect Hedgerow Priority Habitat in Hadleigh

- Removal to facilitate development, subsequent fragmentation of the hedgerow network arising from development;
- Under-management and neglect of hedges leads to a reduction of their biodiversity value due to changes in their structure (and occasionally leads to their complete disappearance);
- Over-management from too frequent flailing can lead to a change in structure and if carried out in successive years, loss of hedgerow fruit in autumn, as flowering and fruiting normally takes place on second year growth;
- Mature hedges with a minimum grass strip separating them from arable land may suffer damage to tree and shrub roots through ploughing;
- Fertilizer and other agro-chemical drift may degrade plant and invertebrate populations, especially where a crop extends to the hedge base;

5.4.5 Ponds

General description of this Priority Habitat in the context of Suffolk

For the purposes of classifying this Priority Habitat, ponds are defined as permanent or seasonal standing water bodies up to 2 hectares in extent which meet one or more of the following criteria:

- Habitats of international importance
- Species of high conservation importance, for example ponds supporting Priority Species
- Ponds of high ecological quality, as determined by standard survey techniques

Ponds Priority Habitat in Hadleigh

Information provided by Suffolk Biodiversity Information Service and from aerial photographs indicate that there are approximately 50 ponds broadly spread through the parish, although with a higher density in the eastern half of the parish. This may be an underestimate as this does not include all ponds within individual gardens. This represents a density of approximately 2.9 ponds/km² indicating that Hadleigh contains a lower pond density than the rest of Babergh District (4.5 ponds/km²) and also lower than the pond density of the entire Suffolk County average of 5.9 ponds/km².

As access was limited it was only possible to visit a few of these ponds during the walkover survey, but reference to Google Earth imaging suggests that the majority still exist. There may also be an additional network of garden ponds, which it was not possible to identify during the field survey.



Overgrown pond in west of the parish

Activities and developments that could affect the Ponds Priority Habitat in Hadleigh

Ponds are dynamic systems, being both lost and created over time. However, loss or degradation of ponds - even if they are at low densities within a landscape network - may lead to a reduced diversity of wildlife as ponds become more isolated from one another, compromising species that may rely on a network of ponds for their survival. Examples of how such changes may occur include:

- Complete infilling due to loss of economic value or new development;
- Loss of terrestrial buffer zones in areas of intensive land use;
- Diffuse or point source pollution from nutrients or other chemicals;

- Inadvertent or deliberate introduction of non-native species such as New Zealand pygmyweed (*aka* Australian swamp stonecrop), least duckweed or ornamental fish;
- Neglect and/or lack of management resulting in heavy shading and drying out.

It should be noted that some apparently neglected ponds and many ephemeral ponds are of great value for biodiversity and that a pond survey based on a standard procedure can do much to inform management decisions.

5.4.6 Lowland Dry Acid Grassland

General description of this Priority Habitat in the context of Suffolk

Acid grassland occurs on nutrient-poor, freely-draining soils with a pH ranging from 4.0-5.5. It is found mainly in the Sandlings and Breckland areas of Suffolk, but also in other areas where sand is dominant in the geology and soils. In Suffolk, many grasslands of this type are more strongly influenced by the free-draining nature of the soils than the pH, so that they are effectively ' parched grasslands'.

This grassland is characterised by a plant community dominated by sheep's fescue, sheep's sorrel and common bent-grass. Other species often present in the sward include sand sedge, wavy hair-grass and heath bedstraw. The summer parched soils in Suffolk often support stands of acid grassland rich in both mosses and lichens. In addition, acid grassland in Suffolk is noted for a number of rare and nationally scarce spring annual plants. These include clustered clover, suffocated clover and mossy stonecrop.

Many of the invertebrates occurring in acid grassland are species that do not occur elsewhere. Ground-dwelling and burrowing invertebrates particularly favour the open acid grassland swards that typically contain bare sandy areas.

The loss of unimproved acid grassland mirrors the loss of other unimproved grassland types in Suffolk. Agricultural intensification, particularly the use of agrochemicals and irrigation has resulted in substantial loss of acid grassland in the county. Further losses can be attributed to an increase in urban development particularly around Ipswich. Recent assessments of the county's resource of this habitat are 820 hectares (2.7% of the national resource).

Lowland Dry Acid Grassland Priority Habitat in Hadleigh

Broom Hill Wood CWS and adjacent land to the north and south of the CWS supports a mosaic of habitats including acid grassland. This undulating area is rabbit grazed with patches of bare ground providing additional habitat for ground nesting invertebrates, as well as suitable basking habitat for reptiles. There are some areas of acid grassland where mosses and lichens are present. In particular, the area of acid grassland to the south of the Broom Hill Wood CWS is a good example of this habitat type, which is rabbit grazed with areas of disturbed ground suitable for colonisation by annual plant species. Species such as common stork's bill and sheep's sorrel occur throughout this area.



Lowland Dry Acid Grassland at Broom Hill Woods CWS

Activities and developments that could affect the Lowland Dry Acid Grassland Priority Habitat in Hadleigh

As this habitat is generally found in small patches it is extremely vulnerable to loss.

Examples of how such changes may occur include:

- Agricultural improvements through ploughing and reseeded, liming, irrigation, fertiliser and herbicide application and change of use to horse paddocks;
- Development for housing, recreational or infrastructure projects;
- Afforestation or smaller scale woodland plantation;
- Reduction in the rabbit population leading to an encroachment by self-sown scrub, trees and bracken.

5.4.7 Coastal and Floodplain Grazing Marsh

General description of this Priority Habitat in the context of Suffolk

Grazing marsh is defined as periodically inundated pasture, or meadow, with ditches which maintain the water levels, containing standing, brackish, or fresh water. The ditches are especially rich in plants and invertebrates. Almost all areas are grazed, and some are cut for hay or silage. Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities, but not extensive areas of tall fen species like reeds, although they may abut with fen or reed swamp communities.

Grazing marshes are particularly important for the numbers of breeding waders they support and are also very important for overwintering wildfowl.

Coastal and Floodplain Grazing Marsh Priority Habitats in Hadleigh

A small area of land between the sewage treatment works and the River Brett is shown on Natural England's Priority Habitat Inventory on MAGIC as being Coastal and Floodplain grazing marsh.

Activities and developments that could affect the Coastal and Floodplain Grazing Marsh Priority Habitats in Hadleigh

- Agricultural intensification, including over grazing, 'over-efficient' dredging of dykes, maintenance of low water levels and spray drift from surrounding agricultural land;
- Neglect through decline in levels and extent of traditional grazing, including grazing of marginal vegetation;
- Impacts of drought and ground water abstraction;
- Ecologically insensitive flood defence.

5.4.8 Lowland Fen

General description of this Priority Habitat in the context of Suffolk

Fen habitats support a diversity of plant and animal communities. Some can contain up to 550 species of higher plants, a third of our native plant species, as well as up to and occasionally more than half the UK's species of dragonflies and several thousand other insect species. Most fens in Suffolk are designated as SSSIs.

Lowland Fen Priority Habitats in Hadleigh

A small area of Fen is listed on Natural England's Priority Habitat Inventory on MAGIC, however access was not obtained to the site so this could not be confirmed. There is also a small area of Fen Meadow within valley Farm Meadow CWS.

Activities and developments that could affect the Lowland Fen Priority Habitats in Hadleigh

- Agricultural improvement through ploughing, drainage, reseeding, fertiliser treatment and application of herbicides;
- Declining agricultural value of species-rich hay;
- Changes in plant communities through inappropriate grazing/cutting regimes;
- Reduction in the availability of the appropriate type and size of farm machinery for traditional hay making;
- Abandonment leading to rank overgrowth and scrub encroachment.

5.4.9 Traditional Orchards

General description of this Priority Habitat in the context of Suffolk

Traditional orchards are structurally and ecologically similar to wood pasture and parkland, with open-grown trees set in herbaceous vegetation. However, they are set apart by a number of factors as follows:

- Species composition - trees grown for fruit or nut production, such as apple, pear, plum, damson, walnut, cherry and cobnut;
- Management – low intensity grafting and pruning with little or no use of chemicals;
- Spacing – denser arrangement with good ground flora structure;
- Scale – small individual habitat patches;
- Dispersion and frequency – wider and greater occurrence in the countryside.

Traditional orchards are hotspots for biodiversity supporting a range of wildlife, particularly when associated with other features such as ponds, hedgerows, scrub, fallen deadwood and streams. The minimum size of a traditional orchard is defined as five trees with crown edges less than 20m apart. Traditional orchards are not to be confused with commercial orchards which tend to be much larger in size, have more of a monoculture and are much more intensively managed.

Traditional Orchards Priority Habitats in Hadleigh

There are eight traditional orchards listed on Natural England's Priority Habitat Inventory on MAGIC. Access to these sites was not obtained, due to them being on private land, so this could not be confirmed.

Activities and developments that could affect the Traditional Orchards Priority Habitats in Hadleigh

- Inappropriate management;
- Use of pesticides;
- Pressure from land development;
- Neglect;
- Intensification of agriculture.

5.4.10 Rivers

General description of the Priority Habitat in the context of Suffolk

During a 2007 national review of BAP Habitats and species by Joint Nature Conservation Committee (JNCC) it was considered appropriate to create a new BAP specifically for rivers. The criteria for a Rivers BAP were published by JNCC in July 2010 and include:

- Headwater reaches;
- Presence of specific vegetation communities;
- Chalk rivers;
- Active shingle rivers;
- Sites of Special Scientific Interest designated for riverine features or species;
- Presence of priority BAP (Priority) Species or other indicator species.

Rivers Priority Habitat in Hadleigh

The River Brett is an important feature of the parish which runs from north to south. The second and sixth criteria above apply to the River Brett, as the River Brett (Sections) CWS is designated for its aquatic plant communities and records for Hadleigh show the presence of otter and water vole

recorded along the river. Various bat species are also recorded in the parish and will most likely feed along the wooded margins of river channels, particularly the species which tend to be associated with river valleys such as soprano pipistrelle.

Activities and developments that could affect the Rivers Priority Habitat in Hadleigh

Inappropriate management of and adverse events within the river channel would include:

- Extensive dredging or channel re-alignment;
- Passage of major infrastructure schemes without mitigation of impacts;
- Extensive removal of bankside trees;
- Severe point source pollution events.

5.5 Other habitats of note in Hadleigh

The Friars Road cemetery represents semi-improved neutral grassland, of notable biodiversity value. There are also a number of veteran trees in the parish, associated with the hedgerow network or as stand-alone trees. These provide valuable habitat for a range of species including birds, bats and invertebrates.

Additionally, there are a number of patches of scrub within the parish, many associated with the edges of the woodlands. Scrub is an undervalued habitat and is particularly important for nesting bird species including 'Red Listed' Birds of Conservation Concern migratory species such as nightingale and turtle dove which have been recorded in the parish.

5.6 Suffolk Priority Species in Hadleigh

Suffolk Biodiversity Information Service has provided records of species within the Parish. Those that are listed as protected or Priority species are as follows:

Mammals: Bats including soprano pipistrelle, brown long eared, barbastelle and noctule. Hazel dormice have been recorded within the woodland and hedgerow network. Otter and water vole have been recorded along the River Brett. There are a number of hedgehog records and also brown hare records for the arable farmland. Badger is also recorded and whilst is not a Priority species, it is protected under its own specific legislation.

Birds: A good number of Red List and Amber List Birds of Conservation Concern (BoCC) have been recorded, most of which are also Priority Species. Some will breed in the parish, others arrive as winter visitors or are recorded on passage. Key species likely to be associated with woodland, hedgerows, scrub and farmland include skylark, yellowhammer, nightingale, linnet, grey partridge, marsh tit, cuckoo, reed bunting and bullfinch. There are also records of the rare turtle dove in the parish. The species recorded in the parish associated with settlements include swift, starling, song thrush, house sparrow and dunnock. Spotted flycatcher has also been recorded.

Barn owl are also recorded and are a Suffolk Priority Species. Barn owl is listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

Invertebrates: There are a high number of records of stag beetle within the parish as well as four priority butterfly species, white admiral, small heath, white-letter hairstreak and wall. There are

also several Priority moth species recorded (mainly research-only) including cinnabar, buff ermine, small phoenix, white ermine, and small square-spot.

Reptiles and amphibians: There are a number of records of reptiles including common lizard and grass snake. Great Crested Newts have also been recorded in the parish, particularly associated with ponds within ancient woodland sites.

Plants: Sixteen Suffolk rare plant species have been recorded including two Priority species: black poplar and shepherd's needle. In addition, wild service tree, white helleborine, violet helleborine, lesser calamint, wood sorrel and wild strawberry have been recorded in the parish, many of which are associated with ancient woodland.

It is also noted that there are records of plants listed as invasive on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) including New Zealand pigmyweed and Indian balsam. There are also records of American mink, grey squirrel and Chinese muntjac, as well as American signal crayfish records along the River Brett.

5.7 Built Environment and Associated Habitats

5.7.1 General description of this habitat in the context of Suffolk

This habitat refers broadly to the wide range of structures, materials and microhabitats found in the built environment, including (though not exclusively) farm buildings, houses, gardens, allotments and also land which may have a previous history of development but is now currently unused. Notably, certain previously developed 'brownfield' sites over 0.25 hectares with specialist vegetation communities can meet the criteria of the Priority Habitat 'Open Mosaic Habitats on Previously Developed Land'.

Land associated with gardens and associated spaces can form a significant proportion of the land use within a settlement, but still provide a wide range of habitats with significant biodiversity value. All provide opportunities and in some case refuges for a wide range of species to complete their life cycles. The conservation importance of such habitats also lies as much in the opportunities they provide for people to have close contact with wildlife as in the protection of common and scarcer species. Becoming familiar with the wildlife in a garden often stimulates interest in species and habitats within the wider countryside.

5.7.2 Built Environment Habitat in Hadleigh

The main settlement in Hadleigh is located in the centre of the parish

The general description underlines the importance for wildlife of the buildings and gardens within the parish and aerial images on Google Earth show just how interconnected the houses and gardens are, perhaps providing a valuable wildlife corridor where gardens are managed with wildlife in mind.

5.7.3 Activities and developments that could affect this habitat in Hadleigh

Brownfield sites can have a high wildlife value as they may contain a habitat mosaic with specialist plant communities, scarce invertebrates or significant numbers of a particular species. Proposals for development of such sites will likely require:

- detailed surveys which must be undertaken prior to vegetation removal or excavation;
- an Ecological Impact Assessment (EclA) to evaluate likely impacts and provide avoidance, mitigation and compensatory measures, as required;
- Enhancement measures to deliver Biodiversity Net Gain.

In terms of wildlife associated with houses and gardens, rather than note adverse actions, there is a wide range of information and websites generally available on wildlife gardening. Some of the positive actions that individual gardeners can consider include:

- Creating ponds and mini wildflower meadows;
- Putting up swift boxes on buildings;
- Creating hedgehog highways between gardens ;
- Composting and creating deadwood areas;
- Harvesting rainwater;
- Avoiding garden chemicals;
- Relaxing mowing of some grassland areas (manage on rotation).

5.8 Ecological Networks and Connectivity

5.8.1 The significance of ecological networks and connectivity

Maintaining and improving connectivity between habitats is important in ensuring the longer-term survival of biodiversity in an increasingly fragmented landscape and with a changing climate.

An ecological network is the basic natural infrastructure that enables biodiversity assets (both habitats and species) to become re-established if damaged or in decline and become resilient to the impacts of climate change. Integrated with the natural cycling of water, soil and nutrients, biodiversity provides what are increasingly recognised as vital 'ecosystem services'. These services are not only of intrinsic social and economic value but will create social and economic problems if they fall too far into deficit.

The major components of an ecological network can be identified as:

- Core Areas: existing areas/features/resources of importance for biodiversity
- Corridors: existing linear features providing structural connectivity between Core Areas and into the wider landscape
- Stepping Stones: existing habitat patches providing functional connectivity between Core Areas and into the wider landscape
- Restoration Areas: areas/features with the potential to become future Core Areas, or to improve connectivity, if they are enhanced or restored
- Buffer zones: can be included around all these elements to lessen the likelihood of direct or indirect impacts upon them

As already noted, the National Planning Policy Framework (NPPF) 2021 states that Plans should take a strategic approach to biodiversity. It includes a range of requirements to conserve and enhance the natural environment, among them requiring Local Plans (and by association

Neighbourhood Plans) to: ‘...promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species.’ Consequently, it is essential that decision makers have access to high quality ecological advice in order to meet these requirements.

In addition, Biodiversity 2020: A strategy for England's wildlife and ecosystems services also features a number of Priority Actions, including to 'establish more coherent and resilient ecological networks on land that safeguards ecosystem services for the benefit of wildlife and people'.

5.8.2 Ecological networks in Hadleigh

The River Brett and its associated habitats represent a key part of the ecological network of the parish. As well as the habitat directly associated with the watercourses, there are significant blocks of other habitat bordering the river including wet woodland and coastal and floodplain grazing marsh. The habitats along the river corridor also link with an ecological network of habitats joining Broom Hill Wood CWS with habitat to the north and south of the CWS, which then join the important hedgerows and historic parkland associated with Holbecks Park. The river corridor is separated by Benton Street from another ecological corridor along the Hadleigh Railway Walk CWS. The Hadleigh Railway Walk CWS is a linear wooded habitat which connects other areas of Priority Habitat and CWSs, such as patches of lowland mixed deciduous woodland, Valley Farm Meadows CWS, Raydon Great Wood CWS and Tom's/Broad oak Wood CWS. This ecological corridor along the Hadleigh Railway Walk CWS also links with an area of semi-natural habitat which runs along an unnamed drain running north to south from Valley Farm Meadow CWS linking patches of fen meadow, woodland, scrub and grassland.

It is notable that these networks extend beyond the parish into the neighbouring parishes of Raydon and Kersey in particular.

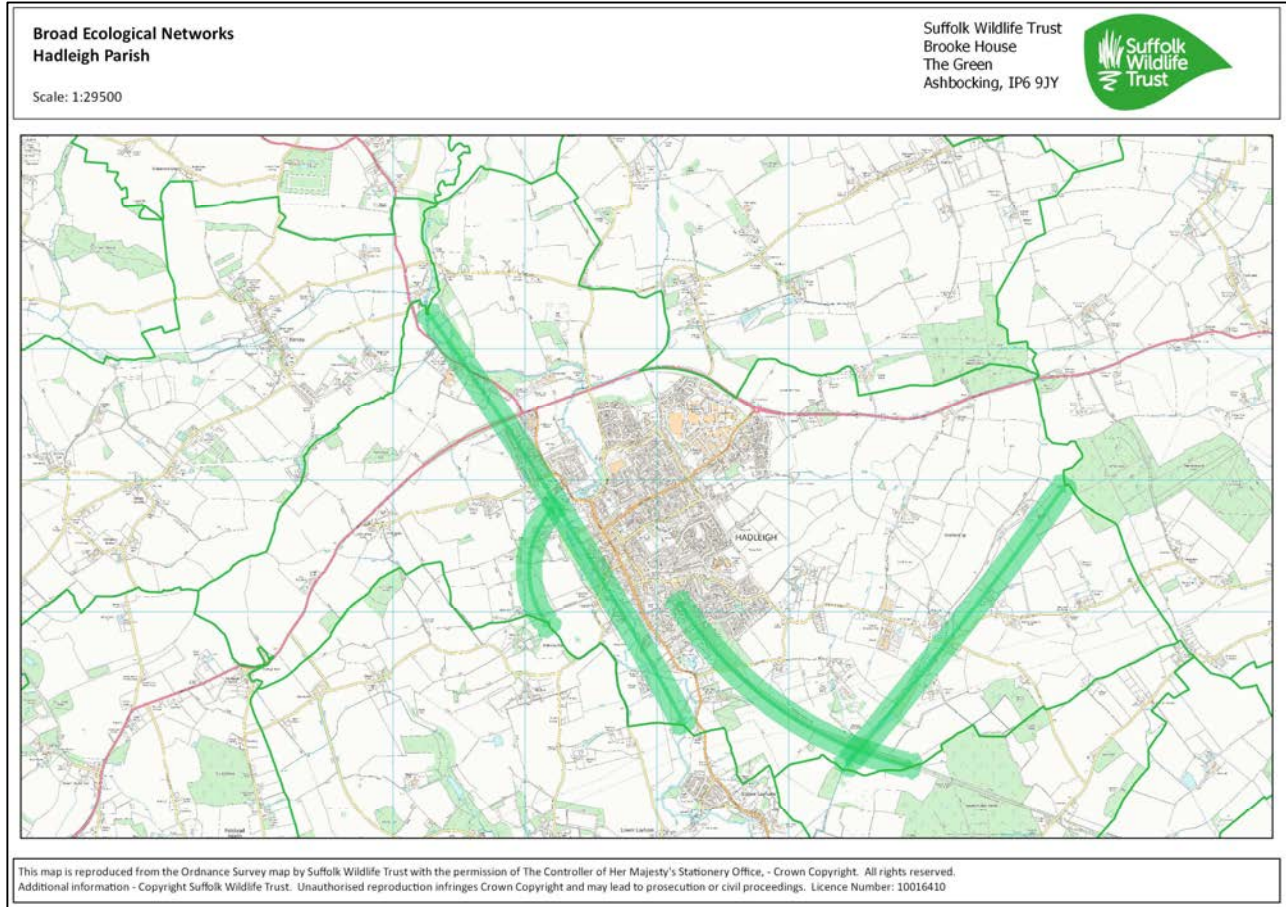
Natural England have identified a number of network enhancement and expansion zones based on the presence of Priority habitats, where habitat enhancement and improving ecological corridors is particularly recommended and these are shown on the MAGIC website. Much of the parish falls within Zone 1 and Zone 2. Zone 2 represents land connecting existing patches of primary and associated habitats which is less likely to be suitable for creation of the primary habitat, however biodiversity value can be improved through land management changes and green infrastructure provision. Zone 1 represents land connecting existing patches of primary and associated habitats which is likely to be suitable for creation of primary habitat, expanding and linking existing habitat to improve ecological networks. The River Brett corridor is identified as Zone 1.¹⁸

Figure 3 provides a spatial view of the above-named sites and broadly identifies where there are existing wildlife corridors within the landscape which contribute to the ecological network. The absence of an arrow on the map should not be taken as absence of connectivity as parts of the parish have not been fully assessed.

These ecological linkages should be safeguarded and also strengthened whenever such opportunities arise. Improving habitat connectivity between existing designated sites is also important. Additional habitat creation in the wider landscape such as new hedgerows will also enhance the network, particularly in areas where such connections are less defined.

¹⁸ [Habitat Network Mapping Guidance.pdf \(defra.gov.uk\)](https://www.defra.gov.uk/habitat-network-mapping-guidance.pdf)

Figure 3: Broad Ecological Networks



5.9 The significance of wildlife and ecological assets for the Neighbourhood Plan

Hadleigh contains a small part of the statutory designated site Hintlesham Woods SSSI, as well as nine County Wildlife Sites. In addition to the above, ten Priority habitats have been identified within the parish. A significant number of protected and Priority species have been recorded in association with these habitats, and any records are likely to underrepresent to true number of species within the parish.

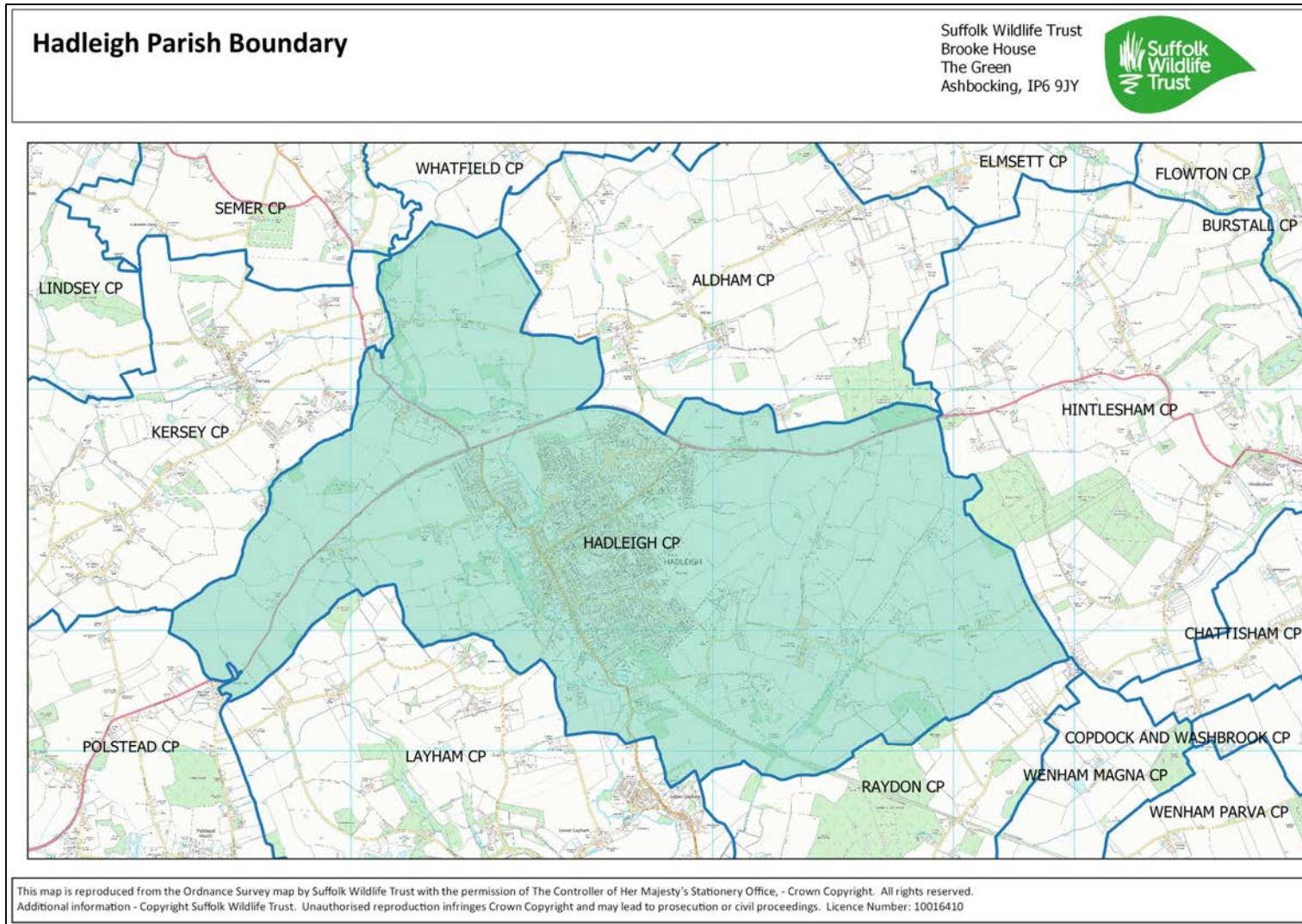
Development Management guidance for any new developments within the area covered by the Neighbourhood Plan should ensure to protect the existing ecological assets of the parish and restore, enhance and reconnect the ecological networks.

6. References

1. Hadleigh Neighbourhood Plan – Hadleigh Town Council
2. <http://www.legislation.gov.uk/ukpga/2011/20/contents/enacted>
3. <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
4. <https://www.babergh.gov.uk/assets/Strategic-Planning/JLPExamination/CoreDocLibrary/A-SubmissionDocs/A01-Part-1-Objective-and-Strategic-Policies-Part-2-Local-Policies.pdf>
5. <https://www.babergh.gov.uk/assets/Strategic-Planning/Babergh-Core-Strategy/CORE-STRATEGY-AND-POLICIES-FINAL-Feb-2014.pdf>
6. New Joint Local Plan homepage » Babergh Mid Suffolk
7. Biodiversity net gain | Local Government Association
8. [Suffolk Biodiversity Information Service | Sharing information about Suffolk's wildlife \(suffolkbis.org.uk\)](http://suffolkbis.org.uk)
9. Magic Map Application (defra.gov.uk)
10. Suffolk Hedgerow Survey 1998-2012, Guy Ackers, Suffolk Coastal District Council, Greenprint Forum, 2012
11. Sibbett, N. (1999) The Distribution and Abundance of Ponds in Suffolk. No. 333 English Nature Reports. English Nature, Peterborough.
12. <https://suffolklandscape.org.uk/map/>
13. Features and Habitats – Dedham Vale AONB (dedhamvalestourvalley.org)
14. <https://designatedsites.naturalengland.org.uk>
15. <https://www.suffolkwildlifetrust.org/about-us>
16. County Wildlife Site Register (17.11.2021).pdf
17. [Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](http://www.gov.uk)
18. Habitat Network Mapping Guidance.pdf (defra.gov.uk)

7. Appendices

Appendix 1: Hadleigh Parish Boundary



Appendix 2: Location of Statutory Designated sites for biodiversity (on the parish boundary)

