

Landscape and Wildlife Evaluation for Bredfield Neighbourhood Plan

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1. Introduction

1.1 Note on References

A range of references was consulted during the preparation of this report. Where these relate to a particular comment or statement they are noted with a number in brackets e.g. [1] and cited as Text References in Section 7.

A number of publications and websites were also consulted more frequently and are cited in this same section as General References.

Plant and animal species are referenced in the text using common English names. They are listed with their binomial scientific names in the Appendix, Section 8.

1.2 Summary of Brief

- After a period of consultation in 2015, SWT Trading Ltd - the wholly-owned trading company of Suffolk Wildlife Trust - was instructed by Bredfield Parish Council at the end of April 2016 to undertake a Landscape and Ecological Evaluation of the parish to contribute to the Neighbourhood Plan currently under preparation.
- Informing Suffolk Coastal District Council (SCDC) of the parish's intention to produce a Neighbourhood Plan under the provisions of the Neighbourhood Planning (General) Regulations 2012, the Parish Council Clerk stated that:

‘The Parish Council look forward to working with SCDC to ensure that future development of Bredfield meets the aspirations of the community whilst ensuring that the character of the village is retained’.

- SCDC confirmed on 12 August 2015 that the Civil Parish of Bredfield within its formal parish boundary, is the ‘Neighbourhood Area’ for the purposes of the Plan, [1].
- This survey and evaluation seeks to provide the Neighbourhood Plan Working Group with evidence that will explain and justify concepts of ‘landscape quality’ and highlight the importance of a range of ‘ecological sites and networks’ within the parish as rich sources of biodiversity.

1.3 Parish Location, Physical Features and Statistics

- Bredfield lies within Suffolk Coastal District, around 4km to the north of the market town of Woodbridge and shares boundaries (clockwise from the north) with the civil parishes of Dallinghoo, Pettistree, Ufford, Melton, Hasketon and Boulge. See Figure 1.



Figure 1: Bredfield and the surrounding area (Source: Bing Aerial)

- The physical landscape is one of generally low relief, ranging from 53m OD in the north west to 25m OD in the north east. Byng Brook drains the parish in a mainly south to north direction and forms one of the minor headwaters of the River Deben.
- The superficial or drift geology consists of chalk-rich, flint-rich mixed-sized sediments of the Lowestoft Formation. Known more generally as ‘till’, this is glacial material deposited during the Anglian glaciation c. 425,000 BP.
- The parish is transected by the A12 in the south east corner. The main built-up area lies more or less in the centre of the parish either side of Woodbridge Road, which runs broadly north to south along a series straight sections and right-angled bends. This route links The Green, The Street, Pump Corner and Potash Corner. From this axis a number of minor roads including Caters Road, Dallinghoo Road, Ufford Road, Saddlemakers Lane and Debach Road make their way into neighbouring parishes.
- Outside of the road network, dwellings and gardens, other buildings and utility sites the 2016 Field Survey (see Section 2.1 below) recognised at least 87 plots of land given over to other land uses. With size of plot not taken into account, these are:
 - 45 arable plots – growing wheat, barley, rye, sugar beet and oilseed rape
 - 18 grassland plots – for pasture, meadow, recreation and conservation
 - 10 woodland plots
 - 2 orchard plots
 - 11 larger plots undetermined because access was restricted
- Data from the 2011 UK Census indicate a usually resident population of 340 people in 138 households, [2].

- Community facilities include the Village Hall - with a village shop in a purpose-built extension - its associated Playing Fields, the parish church of St Andrews, the non-denominational Bredfield Chapel and the Castle Inn public house.

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). 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', [3].

2.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) [4] is statutory guidance published by the Department of Communities and Local Government in March 2012. It consolidates over two dozen previously issued documents called Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG) for use in England.

Of particular relevance here is Paragraph 109, under Section 11 'Conserving and Enhancing the Natural Environment', which states:

The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils
- recognising the wider benefits of ecosystem services
- minimising impacts on biodiversity and providing net gains in biodiversity
- where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures

2.3 Suffolk Coastal District Council Development Plan

The National Planning Policy Framework states that every local Planning Authority in England should have a clear, up to date Local Plan, which conforms to the Framework, meets local development needs and reflects local people's views of how they wish their community to develop.

NPPF states that the Local Plan for an area sets the rules for how the area will develop over time. The Local Plan, along with any adopted Neighbourhood Plans, forms the overall Development Plan

for the local area. Planning decisions must normally be taken in accordance with the Development Plan.

SCDC has endorsed a Development Plan against which all planning applications and other development proposals within the District will be assessed. This Development Plan consists of the following suite of documents:

1. National Planning Policy Framework (NPPF), as described above

2. Suffolk Coastal District Local Plan (LP), [5].

In July 2013, SCDC adopted a revised LP setting out the planning policies, proposals and actions for the future development of the District to 2027 and beyond. This LP consists *inter alia* of:

- Core Strategy and Development Management Policies (adopted July 2013)
- Neighbourhood Plans (as developed by local communities)
- Suffolk Coastal Local Plan 'Saved Policies' (from previous Local Plans)

The Core Strategy consists of a series of Objectives complemented by associated Strategic Policies - prefixed as 'SP'. Within Objective 11 - Protecting and Enhancing the Physical Environment - SP14 covers Biodiversity and Geodiversity and SP15 covers Landscape and Townscape.

Linked to the Strategic Policies are Development Management policies – prefixed as DM. These offer more detailed specific approaches for different aspects or topics of development, which will be used in the determination of planning applications.

The Core Strategy also sets out a Spatial Strategy based on a Settlement Hierarchy of:

Major Centre > Town > Key Service Centre > Local Service Centre > Other Village > Countryside

Bredfield is cited as a 'Local Service Centre', one of 38 settlements in the District providing 'a smaller range of facilities than 'Key Service Centres', with at least three from the list below:

- Public transport access to town
- Shop(s) meeting everyday needs
- Local employment opportunities
- Meeting place
- Post office
- Pub or licensed premises

Within the Spatial Strategy, Strategic Policy SP27 - which covers both Key Service Centres and Local Service Centres - sets out a range of strategies including:

- To permit housing development within defined physical limits only, or where there is a proven local support in the form of small allocations of a scale appropriate to the size, location and characteristics of the particular community.
- To enable organic development to occur in respect of settlements where opportunities within defined physical limits are severely limited.

In addition to the Core Strategy, the Council will continue to have regard to a series of 'Saved Policies' - prefixed AP - from previously adopted Local Plans, until such a time as these are replaced by policies in other Development Plan documents.

Neighbourhood Plans are subject to a formal adoption process to bring them within the Development Plan. The Plan format allows local communities to create Management Development guidelines to reflect more specifically the needs and wishes of that community.

2.4 Suffolk's Nature Strategy

Published in spring 2014, Suffolk's Nature Strategy describes the challenges faced by and the opportunities open to our natural environment, [6]. This comprehensive and forward-looking document has been compiled by a partnership consisting of Suffolk County Council, Suffolk Wildlife Trust, RSPB and National Trust and advised by Natural England, Environment Agency and Forestry Commission. It has been drawn up in the context of the 2013 manifesto produced by Wild Anglia [7], the Local Nature Partnership with the mission 'Embedding nature in decision-making in Norfolk and Suffolk'.

It sets out the key natural environment priorities for the county and conveys to decision makers how the wildlife and landscapes of Suffolk not only have intrinsic value, but also are critically important building blocks for our own economic growth and well-being.

It covers three broad sections:

- Our Natural Environment Priorities
- A Foundation for Economic Growth
- Our Health and Wellbeing

Within these the Strategy sets out a series of Priorities, with Actions to be followed up by the organisations and teams directly responsible for developing the strategy and Recommendations that are challenges for leaders in other sectors, including business, health and education.

The Strategy has strong relevance and linkages to the Neighbourhood Plan process. Within the Our Health and Wellbeing section, it makes direct reference to Neighbourhood and Parish Plans, stating that:

- 'Once adopted, these Plans become part of the Local Development Plan and as such become part of the statutory planning framework. These new powers provide a significant opportunity for communities to recognise, protect and improve local environmental assets.
- There is great scope for benefiting the environment, from designating green spaces to establishing 'green corridors' by linking open spaces and improving local watercourses. We will support communities' writing and implementing their plans and help describe the wider context as we seek to build ecological networks across Suffolk'.

These aspirations are reflected in Recommendation 26 of the Strategy:

- ‘By 2018, all Neighbourhood Development Plans and Parish plans should ensure the natural environment is fully considered. They should maximise opportunities to conserve, enhance and link Suffolk’s green and natural spaces. We will support the development and implementation of these plans’.

Reference is also made within the Our Natural Environment Priorities section to a wide range of landscape and wildlife assets within the county and wherever appropriate its key priorities are highlighted below in relation to Bredfield.

3. Methods

3.1 Field Survey

A ‘Phase 1 type’ Field Survey and ecological audit of the parish was undertaken mainly on 22 June and completed on 9 July 2016, with the aim of investigating and recording land use, habitat types and notable plant and animal species and taking 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 (around 5%) of the parish land area. The summer timing of the survey was optimal for assessing habitats and for adding incidental species records.

3.2 Desktop Survey

A variety of existing source material was consulted including:

- National Government websites
- Suffolk County Council website and other documents
- Suffolk Coastal District Council website and other documents
- Suffolk Biodiversity Partnership website
- Suffolk Biodiversity Information Service website and databases
- Suffolk Wildlife Trust databases
- Suffolk Hedgerow Survey – data for Bredfield and final county report
- Suffolk Bird Atlas website

3.3 Evaluation of Landscape and Wildlife 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 broader habitats and ecological networks.

However, these two sections should be considered together as forming a cascade of significant landscape and wildlife elements, each one flowing from and further enhancing the others.

The resulting inter-related complex of landscape and wildlife features clearly demonstrates the high natural values inherent within the parish.

At the end of each sub-section within the landscape and wildlife sections there is a summary evaluation printed in **blue type**. These statements are collated and reproduced as the **Executive Summary** in Section 6 to help inform the Neighbourhood Plan. It is recommended that this Executive Summary be reproduced in some form within the Bredfield Neighbourhood Plan and used to create relevant Policies, with this document forming the related evidence base.

4. Evaluation of Landscape Assets

4.1 Protected Landscapes

Bredfield lies close to the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB), the boundary of which runs to the east of Woodbridge. The statutory duty to conserve and enhance natural beauty within the AONB is fully recognised within the Suffolk Coastal District Local Plan.

Additionally, Recommendation 2 of Suffolk's Nature Strategy states:

- 'The active partnerships in our protected landscapes should seek to ensure that these areas are exemplars of landscape scale conservation...'

Although Bredfield does not lie within the AONB, the same ethos that applies within the AONB of conserving distinctive landscapes of national and regional importance has much to commend it and can be used to identify, justify and protect areas within the parish that are considered to be of local importance.

4.2 Suffolk Landscape Character Assessment (LCA)

'Landscape embraces all that is visible when one looks across an area of land'.

Modern descriptions of 'landscape character' are in-depth assessments based on precise criteria and produce prescriptions that are used to create guidelines for the future of a landscape in terms of development management and land management.

Acting on Government guidance, in 2008 Suffolk County Council (SCC) completed a project to describe in detail the landscapes throughout Suffolk and assess what particular character and qualities make up different landscape areas of the county. This is known as the Level 2 Suffolk Landscape Character Assessment (LCA), [8].

The guidance required the preparation of Landscape Character Assessments in order to review and/or replace other local landscape designations, such as Special Landscape Areas. 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 the District and Borough Councils in Suffolk, using methodology in which discreet 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, land cover and cultural pattern, which in turn were derived from six mapable datasets: relief, geology, soils, tree cover, farm type and settlement. Application of this methodology maintained a consistent approach across Suffolk.

Development Control Officers, Forward Planners and other staff at County and District level are now using the Suffolk Landscape Character Assessment to manage landscape change and development across the county and to produce local detailed studies as appropriate.

It will therefore be appropriate for the Bredfield Neighbourhood Plan to acknowledge and make use of both the descriptions and the land management guidelines related to the two Landscape Types that exist within the parish.

Bredfield parish is covered by two Landscape Character Types (LCT):

- **Ancient Rolling Farmlands** (coloured olive on Figure 2)
- **Ancient Estate Claylands** (coloured green on Figure 2)

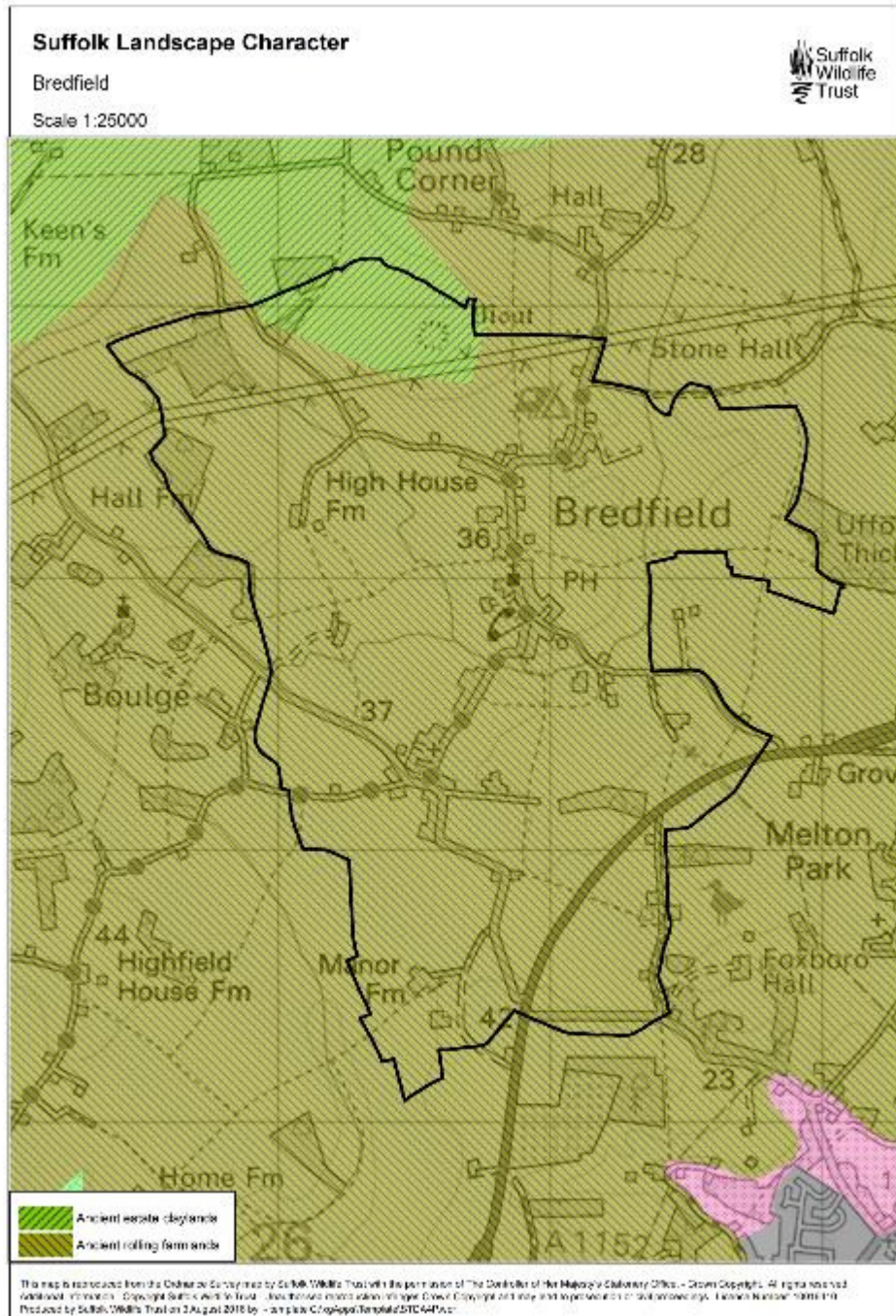


Figure 2: Suffolk Landscape Character Types ascribed to Bredfield (Source: Suffolk County Council)

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

SCC states 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 in essence the information provided - as it applies to Bredfield - to act 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. Details of the full Guidance documents for the two Landscape Character types are available on the Suffolk County Council website, [9 & 10].

Ancient Rolling Farmlands

This Landscape Character Type covers over 90% of the land area of the parish. In relation to the local situation, the Key Characteristics are considered to be:

- A rolling arable landscape, dissected by the shallow headwaters of a river valley
- Deep, sometimes waterlogged, clay and loam soils derived from the chalky tills laid down in the Anglian glaciation
- Some medium sized enclosures, with sinuous field boundaries in places
- Some more substantial open areas created by post World War II agricultural improvement
- Arable production dominated by cereals, sugar beet and oilseed rape, the latter making a seasonally significant visual impact
- Hedges and associated ditches that retain much of the organic pattern of ancient boundaries
- Species-rich hedges of hawthorn and elm - with oak, ash and field maple as hedgerow trees - that are frequently high and wide and have a strong visual impact
- Scattered ancient and semi-natural woodland parcels containing a mix of native species including oak, wild cherry, hazel, ash and holly
- A combination of an extended village with other dispersed and isolated settlement
- A visual experience that combines both intimate views with longer views of more open rolling countryside
- High-tension overhead power lines and pylons that are a possible note of discord in the landscape

The key Sensitivities to Change, Forces for Change and the associated Development Management Guidance associated with this Landscape Type can be summarised as:

- Any settlement expansion, conversion or expansion of farmsteads, or release of land for development should reflect the local pattern
- Any new buildings should usually be close to the existing buildings and be subordinate in size to the principle buildings
- Larger scale agricultural buildings can have their impact mitigated by the right choice of siting, form, orientation and colour and should also relate to an existing cluster of buildings
- Location in relation to existing trees should be carefully considered and any new planting should be designed to integrate the development into the character of the landscape
- New or expanded garden curtilage should always be designed to fit into the local context and respect the established pattern
- Change of land use to horse paddocks, with associated subdivision of land and temporary boundaries can have a significant impact on the landscape and on the quality and condition of the grassland in more ecologically sensitive areas
- If change to this land use is proposed, mitigation strategies in terms of design, layout and stockings rates should be employed where possible and opportunities taken to design field layouts that are in keeping with the local field pattern or historic pattern of boundaries
- The impact of deer on woodland cover, particularly non-native species such as roe deer and Reeves's muntjac, continues to increase significantly
- Large scale deer-control should be supported to reduce populations to a level that allows natural woodland regeneration to take place
- Individual woodland sites may require deer fencing in order to protect them from significant degradation

The Land Management Guidance for this Landscape Type, as relevant to Bredfield, includes:

- Reinforce the historic pattern of sinuous field boundaries where they exist
- Carry out coppice management on elm-dominated hedgerows
- Maintain and increase the stock of hedgerow trees through new plantings
- Maintain the extent and improve the condition of woodland cover with effective management and deer control

Ancient Estate Claylands

This Landscape Character Type occurs as a small inclusion on the northern edge of the parish, covering less than 10% of the parish land area. In relation to the local situation, the Key Characteristics are considered to be:

- A landscape of residual areas lying along the indented edge of the clay plateau
- Heavy, sometimes waterlogged, clay and loam soils derived from the chalky tills laid down in the Anglian glaciation
- An enclosure pattern that is generally ancient and organic in appearance
- Blocks of ancient semi-natural woodland scattered throughout the area, made up of oak, ash and field maple
- Hedgerow trees ubiquitous and so that in many places the landscape can feel well wooded

- Settlement patterns including both villages and dispersed farmsteads
- A network of winding lanes and tall hedges that in some places means that views can be quite intimate

The key Sensitivities to Change, Forces for Change and the associated Development Management Guidance associated with this Landscape Type are issues already considered above with respect to Ancient Rolling Farmlands and can be summarised again as:

- Change of land use to horse paddocks and the need for mitigation strategies
- The impact of deer on woodland cover and the need for large scale deer-control and deer fencing to protect individual woodland sites from significant degradation

In addition, the Field Survey and Desktop Survey identified a significant group of around 20 small field enclosures and woodland areas along the northern edge of the parish. With the exception of one large field to the east, these make up most of the land between Caters Road and Dallinghoo Road. Some of the field boundaries are sinuous and others are more or less straight. See Figure 3.



Figure 3: Field pattern at the northern edge of Bredfield parish (Source: Bing Aerial)

Taken together these fields and woodlands almost perfectly match the extent of the Ancient Estate Claylands Landscape Character Area as shown on Figure 2. They are the most obvious collection of contiguous small agricultural land parcels within the whole parish.

Further investigation using online resources at the National Library for Scotland allows comparison of Ordnance Survey maps for Bredfield at 1:10,560 scale or 6" to 1 mile (map reference Suffolk LXVII.NE), [11]. The original 1881 survey and its subsequent revisions in 1903 and 1925 all show that this group of fields is very typical of the enclosure pattern that existed across the majority of the parish throughout this period – a pattern subsequently lost to a greater or lesser extent by the amalgamation of fields and loss of hedgerows post-1945.

These fields therefore represent the most extensive remnant of this historic land use pattern and are therefore collectively a significant landscape feature.

The boundaries between these fields consist of tall hedgerows that are also significant ecological features in their own right and will be referred to again in Section 5.4 below.

The Land Management Guidance for the Ancient Estate Claylands Landscape Character Type as relevant to Bredfield includes:

- Reinforce the historic pattern of sinuous boundaries where they exist
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows
- Maintain and increase the stock of hedgerow trees through new plantings
- Maintain the extent and improve the condition of woodland cover with effective management

And based on the identification of the historic small field pattern noted above, it is relevant to add:

- Preserve the integrity of the remnant small field system in the north of the parish as a significant historic landscape feature

4.3 The significance of Landscape Character Assessment for the Neighbourhood Plan

The following Development Management policies within the Environment Section of the SCDC Local Plan will be applied with respect to Landscape, [12]. They demonstrate the priorities the Council attaches to landscapes of local as well as national importance:

- 3.153 The District contains a variety of landscape types, all of which contribute to the quality of its environment. The Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and Heritage Coast are designated as being of national importance. These areas will be protected not only because of their visual qualities, but also for their tranquility and ambience, particularly relevant in the secluded parts of the coast.
- 3.154 The District also contains other land that is designated at the county level as being important for the landscape value of river valleys and estuaries - the Special Landscape Areas (SLA) - as well as landscape types identified through the Suffolk Landscape Character Assessment (LCA). Those other parts of local importance will be designated as such, being a key asset for local people and visitors.
- 3.155 LCA recognises the merits of the Landscape Character Types that have resulted from the differences in a range of features including field and settlement patterns, biodiversity, soils, cultural heritage and local building materials. The Council considers it important that these different character areas are conserved and enhanced, but that this must be integrated with the need to accommodate change in order to address social or economic objectives and meet the needs of communities. In doing so it will be necessary to ensure that not only is harm to the environment minimised, but also that opportunities are taken to bring about improvements wherever possible. This applies whether the initiative for change is brought about by land management decisions or new development.

Two Landscape Character Types drawn from the Suffolk Landscape Character Assessment (LCA) are recognised within Bredfield. [Ancient Rolling Farmlands](#) cover the great majority of the parish. This is complemented by a small but significant inclusion of [Ancient Estate Claylands](#) along the northern boundary, which contains a historic pattern of contiguous small fields not represented elsewhere in the parish.

The citations from the LCA describe the [Key Characteristics](#) of each Landscape Character Type, the [Sensitivities to Change](#) and [Forces for Change](#) that could affect these landscapes. They also set out a range of more detailed prescriptions in terms of [Development Management Guidance](#) and [Land Management Guidance](#), which have been made specific to this parish.

In particular these prescriptions highlight the need to 'Preserve the integrity of the remnant small field system in the north of the parish as a significant historic landscape feature'.

The Neighbourhood Plan recognises that the determination of all new developments within the parish should consistently reflect the Development Management Guidance and the Land Management Guidance detailed for the two Landscape Character Types.

5. Evaluation of Wildlife Assets

5.1 Protected Wildlife Sites

The quality of the natural environment in Suffolk is reflected by the extent of the 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 under the European Habitats Directive as Special Areas for Conservation (SAC) and under the European Wild Birds Directive as Special Protection Areas (SPA), covering respectively habitats and, more specifically, birds. Large areas of the nearby estuaries and coastline are protected in this way.

Although none of these designations apply to Bredfield, they are included here to give a complete picture of the hierarchy of wildlife sites that exist across the county.

5.2 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 website, [13].

CWS designation is non-statutory, but is recognition of a site's high value for biodiversity. Suffolk currently has nearly 900 County Wildlife Sites representing approximately 5% of its 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 Sites of Special Scientific Interest, 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 Priority Species (see Sections 5.3 and 5.4 below). 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 Biological Information Service and Natural England manage the Suffolk County Wildlife Site system in partnership. This CWS system involves:

- Maintaining an up to date database of CWSs in Suffolk. Partners, local authorities and other conservation organisations hold 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 agreed 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 all Local Authorities in Suffolk and all have developed policies that give CWSs some protection in line with national planning policy.
- Implicit recognition by the National Planning Policy Framework that CWSs have a fundamental role to play in meeting overall national biodiversity targets. CWSs are not protected by legislation, but their importance is recognised by Local Authorities and all have developed policies that give CWSs some protection when considering planning applications.
- Seeking the views of the CWS partners as part of the consultation process if a site is likely to be affected by development.
- 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 County Wildlife Sites.

As well as noting County Wildlife Sites that lie within a parish, it is normal practice in this type of evaluation to record the presence of CWSs in adjacent parishes, which lie on or close to the boundaries. CWS descriptions here are based on the citations for Suffolk Coastal District, detailed by the CWS partners.

County Wildlife Site in Bredfield

Currently there is one County Wildlife Site, which lies partly within the parish:

- Dallinghoo Wield Wood Grid Ref: TM 262541 Code: Suffolk Coastal 28

This 2.6 hectare site is shared between Dallinghoo and Bredfield, with the parish boundary running through the southern section such that around 25% of the woodland area is within Bredfield.

This is ancient woodland with a ditch and bank and some very old coppice stools. Coppicing is a traditional form of sustainable woodland management involving a rotational cycle of cutting certain tree species down to the base - typically over a 15 to 25 year period - and allowing shoots to grow up again into poles for harvesting. The periodic removal of the canopy cover allows light into the woodland floor. This major change and the subsequent regrowth from the coppice stools allow different species of flora and fauna to thrive in the changing successional states of the coppice cycle.

The southern part of the wood, which includes the area in Bredfield, is a mixed coppice of hazel, field maple and thorns, with mainly oak as standard trees. To the north in Dallinghoo there is almost no coppice, but instead there is a high density of regenerated oaks with mature trees mainly confined to the boundaries. This may be the result of selective felling in the past. Spindle, dog rose and dogwood are present in the understorey, while the ground flora includes dog's mercury, wood spurge and spurge laurel, all species with a high affinity for and indicators of ancient woodland.

County Wildlife Site adjacent to the Bredfield parish boundary

The County Wildlife Site within the parish is complemented by another site, over the parish boundary to the north east:

- Ufford Thicks Grid Ref: TM 281531 Code: Suffolk Coastal 28

This 17.6 hectare site shares part of its western boundary with Bredfield and is also bisected west to east by the parish boundary separating Pettistree to the north and Ufford to the south.

This is a sizeable ancient woodland, which was clear felled in the 1960s and replanted with a mixture of broadleaves (c.80%) and non-native conifers (c.20%). Despite this, the wood displays an impressive ground flora with many plants indicative of ancient woodlands. Common spotted orchid, early purple orchid and common twayblade are recorded here, along with wood sorrel, wood spurge, hairy St John's-wort and the grasses wood melick and wood millet. In total 148 flowering plant species have been recorded in the wood.

Inside the wood there is an extensive ride network. There are a number of shallow ponds and marshy areas, which add to the habitat diversity.

The high wildlife value of many CWSs has developed through land management practices that have 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 to establish the optimum management strategies for maintaining and enhancing wildlife value

There are no statutory Protected Wildlife Sites in Bredfield (such as Sites of Special Scientific Interest or National Nature Reserves).

There is one designated County Wildlife Site lying partly within the parish boundary – Dallinghoo Wield Wood - and another immediately adjacent to the parish boundary – Ufford Thicks.

County Wildlife Sites frequently include Priority Habitats and support Priority Species and complement Protected Wildlife Sites by helping to maintain links between them.

The high biodiversity value of many County Wildlife Sites has developed through land management practices that have allowed wildlife to thrive. The Neighbourhood Plan acknowledges that ensuring the continuation of such appropriate management is vital to maintain the wildlife value of these sites.

5.3 Biodiversity Action Plans and other conservation designations

Biodiversity Action Plans

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 of conservation interest, plus a number of birds and species from other taxa. 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 habitats and species to reflect concerns over continuing deterioration and population declines.

A change in strategic thinking followed the publication of the Convention on Biological Diversity's 'Strategic Plan for Biodiversity 2011–2020' and the launch of the new EU Biodiversity Strategy (EUBS) in May 2011. As a result Government published 'Biodiversity 2020 – a strategy for England's Wildlife and Ecosystem Services', as successor to the UK BAP, [14].

Much of the work previously carried out under the UK BAP is now delegated from national level down to county and local level through the creation of local biodiversity strategies. However, the UK BAP lists of Priority Habitats and Priority Species remain valuable reference sources.

In addition, Section 40 of the Natural Environment and Rural Communities Act (2006) - commonly known as the NERC 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', [15]. Taking action to conserve UK Priority Habitats and Priority Species, listed within Section 41 of the Act, represents 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 Priority Species occurring in Suffolk, [16] 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.

(Note that in April 2016 the work and resources of Suffolk Biodiversity Partnership came under the aegis of Suffolk Biological Information Service (SBIS). Integration of SBP web-based materials within the SBIS website is currently in progress).

Suffolk's Nature Strategy highlights the Suffolk Biodiversity Action Plan and its associated Priority Species and Habitats. It states that they are:

- '...embedded in local planning policies' and that 'impacts on legally protected species are a material consideration in the planning process, whilst impacts on Priority Species and Habitats are also capable of being material considerations.'

It also refers to the National Policy Planning Framework as including:

- '...a range of requirements to conserve and protect the natural environment as well as requiring local plans to promote the preservation, restoration and re-creation of Priority Habitats, ecological networks and the protection and recovery of Priority Species populations. It is essential that decision makers have access to high quality ecological advice in order to meet these requirements'.

Recommendation 3, aimed at decision makers such as District and Parish Councils, states:

- 'In line with Biodiversity 2020...we wish to see an overall improvement in the status for our wildlife and for further degradation to have been halted. Public bodies and statutory undertakers should ensure that, in exercising their functions, they have access to and pay due regard to appropriate ecological evidence and advice so as to ensure that their duties under the relevant legislation are met'.

Section 5.4 below deals with the Priority Habitats that are present in Bredfield. In most cases the habitat descriptions also include references to Priority Species as supporting evidence. These are listed if they were noted during the 2016 Field Survey or are recent records (post-2000) on the Suffolk Biodiversity Information Service database.

Birds of Conservation Concern

In addition to Priority Species and Suffolk Character Species, reference is also made where appropriate in Section 5.4 below to notable bird species found within the parish that are either **Red List** or **Amber List** 'Birds of Conservation Concern'. Birds are generally near the top of ecological food chains and are therefore reliable indicators of the overall health and integrity of their associated ecosystems and the wider environment.

'BoCC' is jointly produced by the leading UK bird conservation organisations. It assesses the status of UK breeding bird populations based on a range of national and international quantitative criteria. It allocates species to the Red List, Amber List or Green List, with the former indicating the greatest concern for the longer-term viability of populations of a species.

Red List: Species of High Conservation Concern include those UK species that have undergone a recent rapid decline or a breeding range that has contracted significantly - in both cases by more than 50% in 25 years

Amber List: Species of Medium Conservation Concern are those species that have suffered moderate recent population declines or contraction of range between 25% and 50% in 25 years

Green List: Species of Favourable Conservation Status are those where there are no current concerns about the populations of these species in the UK

The Lists are normally reviewed at five year intervals, with the most recent - 'Birds of Conservation Concern 4' (2015) - being the Lists used in this study, [17]. Although not statutory, this assessment provides relatively up to date information on the changing nature of bird populations and complements the list of Suffolk Priority Species.

As with Priority Species, BoCC bird records are noted from the Field Survey, the SBIS database and also from the online Suffolk Bird Atlas 2007-11, [18]. An Atlas survey is based on 2km x 2km recording units known as 'tetrads'. Tetrad TM 25R covers the majority of Bredfield parish, with parts of TM 25L to the west and TM 25Q to the south covering the remainder.

5.4 Suffolk Priority Habitats and Species in Bredfield

Of the 25 Suffolk Priority habitats identified by the Suffolk Biodiversity Partnership, the Field Survey revealed six present in Bredfield.

- Ancient Species-rich Hedgerows
- Arable Field Margins
- Lowland Deciduous Mixed Woodland
- Lowland Meadows
- Ponds
- Traditional Orchards

The Priority Habitats are described in more detail below to highlight the significance of these ecological assets within the parish. They are presented in alphabetical order to indicate that no

one habitat is necessarily more important than the others. The format is in three parts:

1. General descriptions of the habitats are taken from Local Biodiversity Action Plans, [16]. Where these have been written and endorsed by (former) Suffolk Biodiversity Partnership, an asterisk follows the habitat title *. In those cases where BAPs have not yet been drawn up, the general description draws upon other sources and descriptions of the habitat and there is no asterisk alongside the habitat title.
2. These are followed by descriptions of the Priority Habitats found in Bredfield during the Field Survey, noting any associated Priority Species, Suffolk Character Species and Birds of Conservation Concern.
3. Finally, reference is made from Suffolk Biodiversity Partnership guidance documents and other sources to those activities and developments that are most likely to affect the Priority Habitat existing in Bredfield, [16].

Ancient Species-rich Hedgerows *

1. General description of this Priority Habitat in the context of Suffolk

Hedges 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 plants. A rich basal flora may also allow the hedgerow to be considered as ancient. 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.

Mammal Priority Species in Suffolk that make use of hedgerows and associated grassy verges include: brown hare, hazel dormouse, harvest mouse, hedgehog and four bats (barbastelle, brown long-eared bat, noctule bat and soprano pipistrelle). Bird Priority Species include turtle dove, song thrush, dunnock, tree sparrow, bullfinch, linnets and yellowhammer.

Other Priority Species include hibernating amphibians and reptiles - common toad, great crested newt, common lizard, grass snake and slow-worm - and invertebrates such as white-letter hairstreak butterfly on elm hedges.

2. Ancient and/or Species-rich Hedgerow Priority Habitat in Bredfield

The Field Survey noted a relatively extensive network of hedgerows within the parish.

Roadside hedgerows, such as those along Caters Road (image right) and many of those forming boundaries to arable and grassland field (images below) had well-developed structure or were overgrown/thick towards the base – both positive features.



Bredfield was one of the many parishes covered by the Suffolk Hedgerow Survey, 1998 - 2012, [19].

The 2012 report on this project shows that, although access was not granted to some landholdings, out of the 319 hedges surveyed for woody species within Bredfield in spring/summer 2003:

- 3% contained 4 species or fewer - compared to the county average of 16%
- 32% contained 5, 6 or 7 species - compared to the county average of 31%
- 65% contained 8 species or more - compared to the county average of 53%

Therefore 97% of the sampled hedgerow resource within the parish can be considered species-rich, with 5 or more species present. This is significantly above the 84% average for Suffolk as a whole and reflects the predominance of hedges with 8 or more woody species.

The hedgerow surveys mapped two examples of native black poplar - a Suffolk Character Species. These mature trees stand in hedgerows to the east and south east of Hill House Farm at TM 2461 5318 and TM 2651 5309 respectively.

Many hedges also contained mature trees, notably oak, some of which class as veteran trees. Veteran status indicates that a tree has reached a stage where its age and structure create such a wide range of microhabitats that its biodiversity value is of the highest order.

A simple guide to identifying a veteran tree is one that has a girth of at least 4.2m when measured at a person's chest height.

Seven veteran oaks are recorded on a summary map, all located in the east of the parish. Five of these are in the south east corner of the parish, one to the west and four to the east of the A12. The sixth tree is south of Ufford Road near Oak Farm and the seventh is south west of Dewells Farm House.

The Field Survey also noted a number of senescent and dead and dying trees in hedgerows and field edges (for example image right, near Manor Farm).

Trees in the latter stage of life, whether they have reached this by natural processes of senescence or lightning strike, still remain a valuable habitat for other species - particularly those that are decomposers in the food chain - and should be retained intact for as long as possible, consistent with safety considerations.

However, if it is necessary to fell a tree, wherever possible its limbs and branches should remain close by to continue the decomposition process and trunks should be left as standing dead wood for as long as possible.



Full details and maps of the results of the hedgerow survey are held by the Neighbourhood Plan committee and will be useful as a standard reference for the Parish Council when development in the wider countryside that may affect hedgerows is being assessed.

It should be noted that the summaries quoted above are based on data collected in 2003 and that changes will have occurred since that time, both positive and negative. However, it remains broadly true that the hedgerows in the parish remain an important reservoir for wildlife.

Suffolk Priority Species noted in association with Bredfield's hedgerows during the Field Survey, the BTO Atlas surveys and from the SBIS database include: hedgehog; turtle dove, song thrush, dunnoek, bullfinch, linnets and yellowhammer; stag beetle; and small heath, wall, white-letter hairstreak and grayling butterflies. White-letter hairstreak is particularly associated with elm hedges.

Polecat will use the cover afforded by the base of hedgerows to move around the its wider habitat. This is a new mammal Priority Species for the parish recorded in 2016 and reflects a wider re-colonisation of Suffolk after a prolonged absence.

Roadside verges often lie immediately adjacent to hedgerows and are equivalent to the field margins on the far side. Taken together they all form a complex of microhabitats that complement each other.



Flower-rich verges were noted particularly at the northern end of Caters Lane (image right).

Flowering plants noted here on 22 June included meadow vetchling, common knapweed, agrimony, hoary ragwort, goat's beard, wood spurge and the grasses crested dog's-tail and quaking grass.

Other roadside records include sulphur clover at the junction of Saddlemakers Lane with the A12.

3. Activities and developments most likely to affect the Ancient and/or Species-rich Hedgerow Priority Habitat in Bredfield

a. Political and economic drivers

- Department for Environment, Food and Rural Affairs (DEFRA), through its agency Natural England, manages the Countryside Stewardship scheme and its predecessors the Entry Level and Higher Level Stewardship schemes. These schemes have offered annual payments to farmers and landowners funded through the EU Common Agricultural Policy (CAP), in return for the positive management areas of land for the benefit of wildlife and the wider environment. Specific payments can be accessed for managing hedgerows in prescribed ways.
- Recent announcements by HM Treasury (August 2016) indicate that arrangements for payments already contracted under these schemes - and those signed off before November 2016 - will continue until at least 2020. As the terms of UK disengagement from the EU are negotiated and new arrangements put in place, there will be significant opportunities to replace CAP funding with more focused and targeted payment systems that could be even more beneficial to Priority Habitats and Species, including hedgerows. However there are also risks that priorities in any new schemes could be changed and funding levels reduced.

b. On a more practical level, the following activities can cause the biodiversity value of hedgerows to deteriorate:

- Removal of hedgerows to facilitate arable, other farming operations or other developments (though this may require consent under the Hedgerow Regulations, 1997)
- Under-management and neglect of hedges leading to a reduction of their biodiversity value and structural coherence (and occasionally leading to their complete disappearance)
- Too-frequent flailing leading to structural incoherence 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 minimal grass strip separation from arable land suffering damage to tree and shrub roots through ploughing
- Fertilizer and other agro-chemical drift degrading plant and invertebrate populations, especially where a crop extends to the hedge base
- Losses of veteran trees not being replaced by new plantings of the same species
- Roadside verges cut too low or before plants have been able to set seed

Actions on some of these issues will be outside the remit of the Neighbourhood Plan, but they are included here (and for other Priority Habitats) so that awareness is raised within the community.

Arable Field Margins *

1. General description of this Priority Habitat in the context of Suffolk

The land between a cereal or other arable crop and the field boundary can provide valuable habitat for a wide range of animals and plants. Up to 75% of the biodiversity within an arable field can be found in the margins, regardless of the farming practice. Changes in cropping practice and agri-environment schemes related to the EU Common Agricultural Policy all have potential to alter this habitat quite substantially, either positively or negatively.

Sympathetically managed field margins can benefit a wide range of species. Where a tussock-rich growth is allowed to develop, many invertebrate species can thrive, including bumblebees. This is also an important habitat for bats and amphibians, especially where it buffers and links to water bodies. Margins can provide nesting and feeding sites for smaller birds and mammals, which in turn support a variety of predators such as barn owl, kestrel and buzzard.

Key Priority Species and Red List Species that use arable field margins are brown hare, grey partridge, skylark, linnets and yellowhammer.

2. Arable Field Margins Priority Habitat in Bredfield

Although the Field Survey did not specifically visit every arable plot, field margins of some value were noted in the fields to the north west along Caters Lane.

Several of the Suffolk Priority plant species are those associated with the arable cropping, such as cornflower and corn buttercup. However, there are no SBIS records of any of these within the parish. Birds associated with open farmland make use of arable crops and their margins for feeding and in some cases nesting. Skylark is a Priority Species noted during the Field Survey and in the BTO Atlas surveys as being present across the parish. Mammal Priority Species include brown hare and hedgehog.

Barn owl, a Suffolk Character Species, will hunt small mammals in arable margins and tussocky grassland across a wide home range, often crossing parish boundaries. Data from the Suffolk Community Barn Owl Project (*pers. comm.*) confirms that nest boxes installed by the Project have been used recently by breeding or roosting barn owls in Bredfield (2015) and in Dallinghoo (2015), Pettistree (2014) and Ufford (2015). Data for the 2016 monitoring season is not available at the time of writing this report, but this pattern is likely to be continued.

Already noted in the context of the hedgerows Priority Habitat, turtle dove is a Priority Species has experienced a 93% population decline in the UK over the past 25 years, with the rate accelerating more recently. Because of this it can be considered as the Priority Species frequenting arable field margins. As well as favouring thickets and tall hedgerows with wide bases as breeding sites, this summer migrant Priority Species requires a good supply of small weed seeds near open ground from April through to the end of August. Arable margins can provide these valuable feeding areas and special seed mixes are available for planting in strips and headlands.

The 2008-11 Suffolk Bird Atlas shows records of turtle dove in Bredfield. It is recommended that concerted efforts are made from summer 2017 and onwards to establish whether or not this species is still present within the parish. The soft purring song of the male is readily recognisable and a survey would offer opportunities for members of the community to become actively involved in its conservation. However, if resources for surveying are at a premium, Suffolk Wildlife Trust can give advice on experienced bird surveyors.

All records should be entered through the Suffolk Turtle Dove Survey webpage at Suffolk Biodiversity Information Service: <http://www.suffolkbis.org.uk/turtledove>

RSPB Regional Staff should also be informed of the location of all turtle doves found, so this species on the brink can be the focus of intensive local conservation efforts:

<http://www.rspb.org.uk/contactus/offices/england/easternengland.aspx>

3. Activities and developments that could affect the Arable Field Margins Priority Habitat in Bredfield

As noted with respect to Hedgerows above, the availability of and potential changes to agri-environment schemes are some the more significant drivers affecting the management of arable field margins for wildlife.

- Public records show that some arable landholdings in the parish are currently in Entry Level Stewardship (ELS), although none are in Higher Level Stewardship (HLS), [20].
- As a result of CAP reforms in 2014, ELS and HLS were replaced by Countryside Stewardship and accessing funds through this - or a future successor scheme - has significant potential to increase the value to wildlife of arable margins throughout the parish.

In this context, it is important to note Recommendation 7 within Suffolk's Nature Strategy and the Action associated with it:

- 'We wish to see the contribution from agri-environment schemes maximised towards the multiple benefits of ecological restoration at a landscape scale and to halt further degradation of our wildlife and landscapes'
- 'We will engage with farmers across Suffolk to promote wildlife-friendly farming within profitable, modern farming businesses. We will work collaboratively to make effective use of available funds outside areas specifically protected for wildlife'

There is considerable potential to increase the wildlife value of arable margins throughout the parish and a strong willingness among conservation professionals to work closely with and to share best practice with farmers and landowners.

Lowland Mixed Deciduous Woodland *

1. General description of this Priority Habitat in the context of Suffolk

This Priority Habitat includes all broadleaved stands and mixed broadleaved and coniferous stands that 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 c. 1600) or 'Recent' (where cover has been created since c. 1600). Both 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.

2. Lowland Mixed Deciduous Woodland Priority Habitat in Bredfield

Dallinghoo Wield Wood to the north is already noted as a County Wildlife Site, as is Ufford Thicks over the north-eastern parish boundary.

In addition, the Field Survey noted deciduous woodland at the following sites, checked using OS 1:25,000 maps and Google Earth imagery. With the grid references centred on the woodland block, starting west and moving east these are (Image shows Oak Grove with Queen's Wood in the distance):



- Queen's Wood – south west of Poplar Farm (TM 256 534)
- Oak Grove – north of Queen's Wood (TM 256 538)
- Cypress Covert (part) – south west of High House Farm (TM 259 530)
- A triangular wood - southwest of Dallinghoo Wield Wood (TM 260 539)
- A small copse – south of High House Farm (TM 261 530)
- A squarish wood – north west of Manor Farm (TM 263 516)
- A small copse – west of 'Oaklands' (TM 268 526)
- Horse Close Wood – west of the A12 (TM 272 522)
- A small copse – north west of 'Stoney Ways' (TM 273 525)

Although not formally recognised by statutory designations, all of these sites complement the CWS deciduous woodland within the parish.

Amber List Birds of Conservation Concern noted in or alongside the woodlands during the Field Survey include kestrel and stock dove. Woodcock is noted as a winter visitor in the Suffolk Bird Atlas.

3. Activities and developments most likely to affect the Lowland Mixed Deciduous Woodland Priority Habitat in Bredfield

- Further fragmentation of and within the existing woodland area
- Overgrazing and overbrowsing by expanding deer populations, changing woodland structure through reduced regeneration
- Invasion by sycamore and other species considered to be non-native
- Management of woodland primarily for game species, although there is often compatibility between this and managing for biodiversity if undertaken sensitively
- Intensification of management between woodland fragments reducing the ecological value of edge habitats and the connectivity between woodland blocks in the landscape

Lowland Meadows *

1. General description of this Priority Habitat in the context of Suffolk

Often termed 'old meadows', these grasslands are characterised by a long history of traditional management of haymaking and have not been altered through ploughing or the use of agro-chemicals. This definition is also broad enough to include unimproved pastures where livestock grazing is the main land use.

In addition to species-rich swards of grasses and other flowering plants, unimproved hay meadows and pastures support a wide range other wildlife, including birds, small mammals and invertebrates. 96% of this Priority Habitat has been lost in Suffolk since 1939, with less than 100 hectares still remaining.

However, many of the characteristics described above find a parallel in the more traditional churchyards, where the flora and fauna can mirror the lowland meadow habitat to a greater or lesser extent.

2. Lowland Meadow Priority Habitat in Bredfield

The Field Survey found no Lowland Meadow habitat in the strict sense in Bredfield, although some small grassland plots behind tall hedges may have been overlooked. However using the criteria in their wider sense, the churchyard of St Andrew's Parish Church supports a moderately rich meadow-type flora and has been the subject of a number of plant surveys - the first in 1985, another in 1993 and the most recent in 2011 arranged with Suffolk Wildlife Trust through the Suffolk Churchyard Survey.

Some comments below describing the wildlife and management of the churchyard are taken from SWT correspondence with Bredfield parishioners following the 2011 survey. The Field Survey found that many of the management options shared in 2011 appear to have been implemented. However, full confirmation of this would only be possible through further discussions with the team

managing the churchyard on a regular basis. The images shown below were taken during the Field Survey on 22 June.



Much of the churchyard is kept short by regular mowing (image left), which is both practical in terms of its usage and provides a contrast to the areas of taller herbs and grasses.

Mowings and clippings appear to be collected, which helps keep nutrient levels low and leads to a 'herb-rich lawn' effect, with low-growing flowers providing a regular nectar source for bees and other insects.

A roughly triangular area of 'summer meadow' noted in 2011 (image right), is located along the western boundary of the churchyard and provides an example of unimproved species-rich grassland, which will look at its best between April and June. Typical plants changing through the seasons include primrose, oxeye daisy, common vetch, knapweed and yarrow.



Cutting and raking this area in July and again later in the autumn can be complemented by an early spring cut in February/March after a mild winter to maximise the displays of meadow flowers and grasses.

Another area of summer meadow lies to the north and east of the church (image left). In 2011 this included a number of attractive species including primrose, oxeye daisy, common sorrel, barren strawberry, yellow oat grass and quaking grass.

Close to the southern boundary of the churchyard (image right) is a small area that was mown grass in 2011, but was showing evidence of meadow species at ground level.

The recommendation to make this into another area of summer meadow has been implemented.



However, the 2016 Field Survey found that in both these areas, although meadow species were mostly still present, they are in some danger of being dominated by rank species such as cow parsley, Yorkshire fog and false-oat grass and sycamore seedlings.

A number of other grassland areas were assessed during the Field Survey either directly from footpaths at a longer distance through binoculars. Most of these appeared to be semi-improved neutral grasslands and therefore relatively poor in biodiversity terms. However, this can only be verified by visiting each field individually to assess species diversity, which was outside the scope of the brief.

3. Activities and developments most likely to affect the Lowland Meadow Priority Habitat in Bredfield

- Changes in plant communities through inappropriate grazing or cutting regimes
- Lack of resources for long-term management of hay meadows or churchyards
- Abandonment leading to rank overgrowth and scrub encroachment

Compared to many other high maintenance churchyards in Suffolk, it is clear that the areas left to develop into summer meadow provide shelter and food supplies for other species of wildlife, particularly insects, as well as a pleasing aesthetic. However, there is evidence that ranker species are becoming over-dominant and some of the key meadow characteristics are in danger of being lost.

It is recommended that the 2011 management advice with respect to mowing and cutting times is reviewed and resources re-assessed as part of the Neighbourhood Plan process. This will all help to maintain this important remnant of a once a much more extensive habitat, albeit one which relies on annual management for its continued survival.

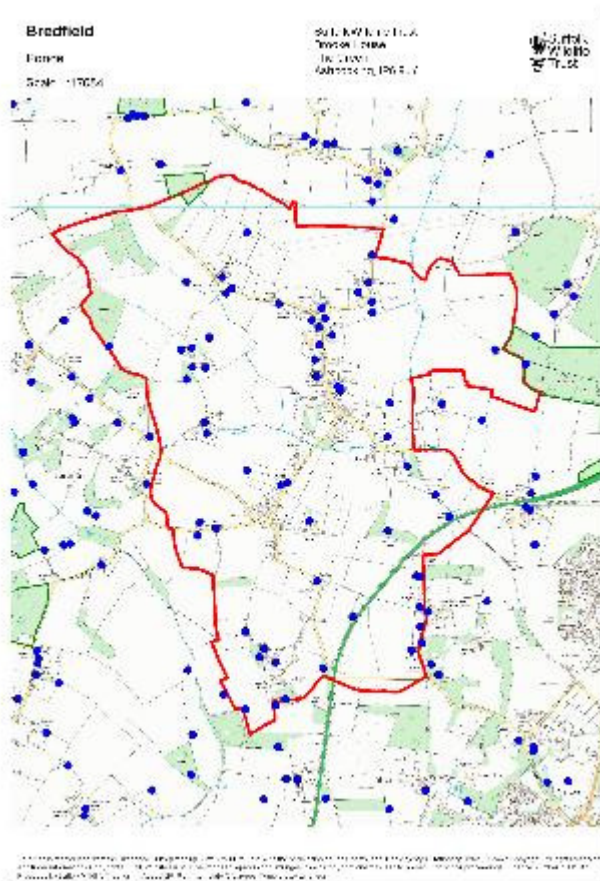
Ponds

1. General description of this Priority Habitat in the context of Suffolk

For the purposes of classifying this Priority Habitat, ponds are defined as permanent and 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

2. Ponds Priority Habitat in Bredfield



Data held by Suffolk Biodiversity Information Service identifies 59 ponds within the wider landscape of the parish (image left). These include farm ponds and ponds in individual gardens.

The clay-rich nature of the underlying soils explains why Bredfield is an area of relatively high pond density compared to other parts of the county.

In other Landscape Character areas (such as Rolling Valley Farmlands and Furze found nearby to the south west) pond densities may be more than ten times lower.

It was not possible to visit each pond individually during the Field Survey, but reference to Google Earth imaging suggests that the majority still exist in some form, although a dedicated series of surveys would be required to assess the integrity and quality of the overall pond habitat.

Amphibian Priority Species great crested newt is known to have been present in at least three of the ponds shown on the map, but is probably significantly under-recorded.

3. Activities and developments that could affect the Ponds Priority Habitat in Bredfield

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

- Neglect and/or lack of management resulting in heavy shading and drying out
- 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

- Introduction of non-native species such as New Zealand pygmyweed (*aka* Australian swamp stonecrop), least duckweed or domesticated fish

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

Traditional Orchards

1. General description of this Priority Habitat in the context of Suffolk

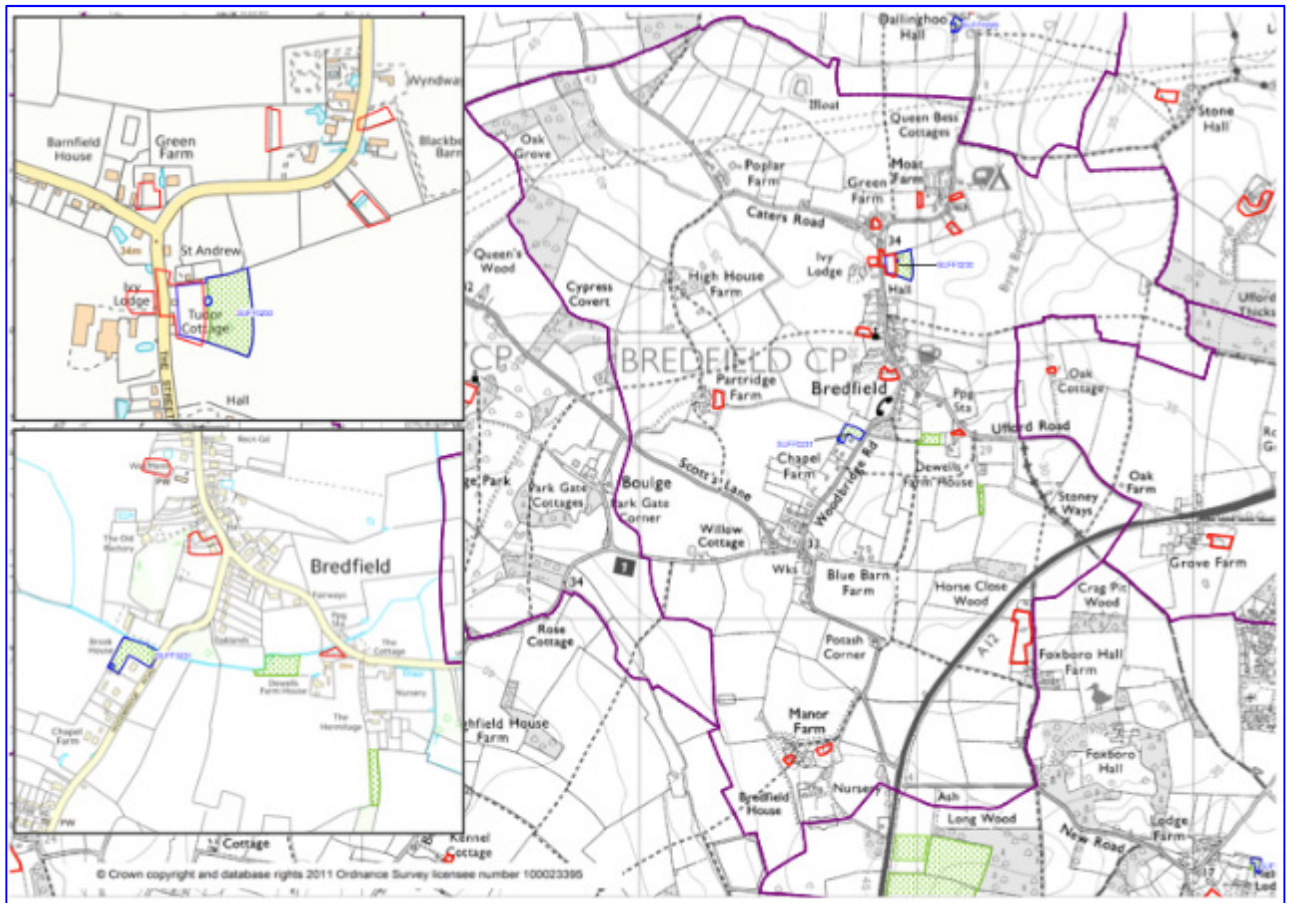
Orchards are key areas for biodiversity in the countryside, supporting a wide range of Priority Species, Nationally Rare and Nationally Scarce species and other wildlife. Habitat structure rather than vegetation type, topography or soils, is the defining feature of the habitat. Traditional orchards are defined for Priority Habitat purposes as orchards managed in a low intensity way, in contrast to orchards managed intensively for fruit production by the input of chemicals such as pesticides and inorganic fertilisers.

The wildlife of traditional orchard sites depends on the mosaic of habitats they encompass, including fruit trees, scrub, hedgerows, hedgerow trees, non-fruit trees within the orchard, the orchard floor habitats, fallen dead wood and associated features such as ponds and streams. A feature of the biodiversity of traditional orchards is the great variety of fruit cultivars that they contain.

The majority of traditional orchards in Suffolk are small, often less than 0.5 hectare in size, and are often managed very little. This very lack of management underlines their value as havens for wildlife, encouraging the presence of mammals, birds and invertebrates and allowing mosses, lichens and flowering plants to flourish. Orchards may contain many varieties of fruits and nuts that are no longer commercially available, so are an important source of old varieties. Orchards are also part of our natural heritage, a social and cultural legacy that is bound up with the people and diverse landscapes of the county.

2. Traditional Orchard Priority Habitat in Bredfield

According to SBIS, Bredfield has not been the focus of a recent full survey of orchards in the parish. However, the map below supplied by SBIS summarises information from various sources and desk studies.



Red sites are those shown as orchards on the 2nd Edition Ordnance Survey maps published between 1905 and c. 1925.

Green sites are orchards on the Millennium OS map. These are typically modern commercial plantings.

Blue sites are those identified in 2009 by the People's Trust for Endangered Species from aerial surveys as *possibly* old orchards, but these were not checked on the ground at the time.

Two orchards were noted during the Field Survey:

Foxburrow Farm (image above)

A traditional orchard is still in existence at Suffolk Wildlife Trust's Foxburrow Farm Reserve. The details below have been supplied by SWT staff.

- An oral history file dated 1988 documents the memories of Peter Hay, who lived at Foxburrow in the 1920's. He describes the orchard as supplying fruit for the family, not a commercial orchard. The grass was kept short by chickens and sheep and he also mentions a medlar tree.
- The orchard now retains some veteran apple trees including: Nonpareil, Ross Nonpareil, Dr Harvey and Autumn Bergamot. In the past few years Beauty of Kent and Warners King have been lost.
- There have been some new additions, mainly in association with the East of England Apples and Orchards Project. In 1997 Bramley, Discovery, St Edmunds Russet, Lady Henniker and Laxton Fortune were planted. In 2013 two apple trees were planted by the Ipswich Naturalists' Group. Recent plantings have been on semi-vigorous rootstocks.
- A large pond in the centre of the orchard complements the habitat diversity.

Jubilee Meadow

A community orchard has recently been planted here. See Section 5.5 below.

The time allocated for the Field Survey did not allow detailed assessment of whether other orchards continue to exist within the parish. Many that appear on the map are on private land, with limited possibilities for access in the time available.

3. Activities and developments which may affect the Traditional Orchard Priority Habitat in Bredfield

- Complete or partial clearance of the orchard trees and other vegetation for building or other development purposes
- Inputs of chemicals such as pesticides and inorganic fertilisers
- Frequent mowing of the orchard floor rather than grazing or cutting for hay
- Planting of short-lived, high-density, dwarf or bush fruit trees (stems generally 75 cm or less) at spacings less than 3m

If not already in place, the Neighbourhood Plan team may wish to set up a small community project to review the present state of these other possible orchard sites within the parish and to document them in a similar fashion, including an oral history element.

Suffolk Traditional Orchard Group is also a potential source of further information.

<http://www.suffolkbiodiversity.org/orchards.aspx>

Bredfield has a number of Suffolk Priority Habitats: Ancient Species-rich Hedgerows, Arable Field Margins, Lowland Mixed Deciduous Woodland, Lowland Meadow, Ponds and Traditional Orchards.

Within these habitats a number of [Suffolk Priority Species](#), [Suffolk Character Species](#) and Birds of Conservation Concern are present, that complement and underline their conservation value.

Although not exhaustive the list of species includes:

- Flowering plants: native black poplar
- Butterflies: grayling, small heath, wall and white-letter hairstreak
- Beetles: stag beetle
- Amphibians: common toad, great crested newt,
- Reptiles: common lizard, grass snake and slow-worm
- Birds: woodcock, barn owl, turtle dove, stock dove, cuckoo, skylark, song thrush, mistle thrush, dunnock, linnet, bullfinch and yellowhammer
- Mammals: brown hare, otter, polecat, hedgehog

Suffolk's Nature Strategy highlights the importance of the Suffolk Biodiversity Action Plan and its associated Priority Habitats and Priority Species. It states that they are '...embedded in local planning policies' and that 'impacts on legally protected species are a material consideration in the planning process, whilst impacts on priority species and habitats are also capable of being material considerations.'

The Neighbourhood Plan recognises the significance for Suffolk's wildlife of both the variety and the extent of Priority Habitats and the Priority Species present within the parish.

Landowners and land managers are encouraged to become conversant with the relevant Priority Habitat and Priority Species citations. Links to the relevant pages on the Suffolk Biodiversity Partnership website are available on the parish website.

Landowners and managers are also encouraged to seek management advice from conservation professionals wherever appropriate to ensure the wildlife interest of these Priority Habitats can be both maintained and enhanced as ecological assets.

5.5 Other Wildlife Sites

Jubilee Meadow

This site has been developed since 2013 as a community orchard and wildlife site on land known as Glebe Field (image right).

Formerly cultivated land until about 12 to 15 years ago, the changes to the flora since then are fairly typical of arable reversion on heavy, seasonally waterlogged soils, that in turn reflect the underlying chalk-rich boulder clay or glacial till.





Community members and Suffolk Wildlife Trust staff have carried out plant surveys over the past few years. Of particular interest is marsh helleborine – ‘an amazing find’ - now more or less confined to a very limited number of sites in the calcareous fens of north Suffolk.

Other notable plants found in the former arable areas include: bee orchid (image left), southern marsh orchid (image below) and pyramidal orchid.

Relatively undisturbed grassland is found around the edges of the field, possibly reflecting the unmanaged margins of the former arable field. Species noted here include imperforate St John’s-wort, bugle, false brome, common sedge and adder’s tongue.

Suffolk Wildlife Trust advice highlights that different species will colonise and be lost over time, as a slow and sometimes interrupted successional process takes its course. As levels of nutrients, organic matter and degrees of waterlogging change over time it is almost impossible to achieve the stasis of retaining a particular plant community on a site that is essentially in transition. However, carefully planned and executed annual management activities can help to maximise plant diversity as this succession takes its course.

The Field Survey noted that the community orchard is now established with 37 fruit trees planted in two rows along the centre of the Meadow.



The management plan will maximise the opportunities to maintain and enhance the wildlife value of Jubilee Meadow. Central location and accessibility, linked with strong commitment and involvement from members of the parish, underlines the potential the Meadow has to be a valuable resource and opportunity for learning for people of all ages.

Regular plant monitoring and surveys of butterflies, moths, bees and other insect groups will all help to engage and enthuse present and future generations.

Byng Brook

Rising at springs to the west, south west and east of the parish, several streams come together in the centre of the village and flow out to the north as Byng Brook, one of the smaller headwaters of the River Deben. Turning due south as it flows through Pettistree, the Brook reaches its confluence with the Deben south of Ufford in approximately 6 km.

Although its characteristics do not fully match the criteria required of a Rivers Priority Habitat, the stream channels with their modest floodplains and associated riparian (bankside) vegetation support a range of plants and animals that require water or wet ground for their survival (images below and right):



Recent records on the SBIS database of otter – a mammal Priority Species – suggest that Byng Brook is acting as a corridor for these animals as they move between the various small headwater catchments of the Deben.

There are also recent records of several bat species including common pipistrelle, soprano pipistrelle, serotine and brown long-eared bat. Although these will all have roost and nursery roost sites throughout the parish in public and private buildings and natural features such as old trees, the airspaces above the streams and their associated shrub- and tree-lined margins are very important hunting sites in the nightly search for insect prey.

Although not covered by statutory designations, the Neighbourhood Plan recognises the value of two other wildlife sites. Jubilee Meadow is the result of significant community commitment to conservation and enhancement of wildlife habitats within the parish. The stream channels and bankside habitats along the length of Byng Brook and its headwaters are also seen as important features providing connectivity and natural routeways.

5.6 Built Environment and Associated Habitats

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 unused or unadopted land. These built-up areas, gardens and associated spaces can form a significant proportion of the land use within a settlement, but still provide a wide range of semi-natural habitats with significant biodiversity value.

On a more intimate scale, buildings mimic and provide nesting sites that are equivalent to natural cliff faces for birds, such as swift and house martin. Gardens can provide the equivalent to the woodland, scrub, hedgerows, species-rich meadows, ponds and streams that are found in the wider countryside. All provide opportunities and in some case refuges for a wide range of species to complete their full life cycles.

The conservation importance of the built environment and its associated 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.

2. Built Environment Habitat in Bredfield

The general description underlines the importance for wildlife of the buildings and gardens within the parish. Aerial images show just how interconnected the houses and gardens are between The Green and Potash Corner.

Within these built up areas, as well as a wide variety of more common bird species, the Suffolk Bird Atlas surveys and 2016 Field Survey recorded the following Suffolk Priority Species and Red List species as breeding birds: starling, song thrush, dunnock, spotted flycatcher, house sparrow and bullfinch, plus swift as an Amber List and Suffolk Character Species. Hedgehog and several bat species are also recorded regularly as Mammal Priority Species, as is Amphibian Priority species common toad and great crested newt.

3. Activities and developments that could enhance this habitat in Bredfield

Rather than note adverse actions, there is a wide range of information and websites generally available on wildlife gardening and supporting wildlife generally.

Some of the positive actions individual gardeners can consider include:

- Creating ponds and mini-wildflower meadows
- Composting and creating deadwood areas
- Harvesting rainwater
- Avoiding garden chemicals

Actions that can be taken by the community as a whole include:

- Helping to increase the swift population

A 'screaming party' of six swifts was noted on the Field Survey, flying close to St Andrew's Church. The population of this evocative summer visitor is in steep decline across the UK for a variety of reasons, including loss of nest sites due to building conversions and improvements.

Although on the BoCC Amber List, this is only on the technicality that only 23 or the required 25 years of data are currently available. The rate of decline strongly indicates that it should be considered as a Red List species now.

However, swifts can readily be helped by creating additional nesting sites using internal or external nest boxes.

Save Our Suffolk Swifts - a joint project managed by Suffolk Wildlife Trust and Suffolk Ornithologists' Group - provides advice and support to anyone wishing to encourage more swifts to nest on their houses and within their community.

(Image: Bill Baston).



<http://www.suffolkwildlifetrust.org/swifts>

Several Suffolk villages have successfully attracted new populations of swifts by creating 'tenements' of nestboxes inside the belfry towers of their churches. Starting out in 2009, Worlington in the north west of the county now has 27 out of 40 nest boxes in the church tower occupied by breeding pairs, with 57 young birds reared in 2016 (Dick Newell, *pers. comm.*).

The bell tower of St Andrew's appears to be an ideal location in which to increase the local swift population.



- Joining together to create a Community Nature Reserve

A Community Nature Reserve can be a larger area such as Jubilee Meadow. However, Felixstowe's Community Nature Reserve initiative takes a different and complementary approach by encouraging gardeners and allotment owners to allocate at least 3 square metres of their land for wildlife-friendly plants, ponds and insect lodges. The idea is being enthusiastically adopted by a other communities around Suffolk. Details can be found on Facebook at: <https://www.facebook.com/FelixstoweCommunityNatureReserve/>

The built-up areas, gardens and associated spaces within the parish form a significant proportion of its land use and provide a wide range of semi-natural habitats with significant biodiversity value.

The Neighbourhood Plan recognises that simple actions taken across the community such as increasing the number of nesting sites for swifts or creating a community nature reserve in small areas across the parish can have significant benefits for wildlife and add an enjoyable focus to community life.

5.7 Ecological Networks and Connectivity

The significance of ecological networks and connectivity

Maintaining and improving connectivity between habitats is vital to ensure the longer-term survival of biodiversity in an increasingly fragmented landscape and 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 of social and economic value, but will create social and economic problems if they fall too far into deficit in what is increasingly recognised as an 'ecological recession'.

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/resources with the potential to become future Core Areas, or to improve connectivity, if they are enhanced or restored
- Buffer zones: included around all these elements to lessen the likelihood of direct or indirect impacts upon them

Ecological networks can be seen well from the air, with the best indicated by a patchwork of interconnected sites and enclosures, showing variety in shapes, forms, texture and vertical structure.

As with man-made examples of networks, an ecological network can be strengthened or can deteriorate based on the degree and quality of connectivity inherent within the system.

High connectivity allows species and populations of both plants and animals to find suitable habitat, access the resources needed to survive and reproduce, maintain genetic diversity and allow adaptations to longer timescale influences such as climate change.

In contrast, low connectivity can compromise all the above and can lead to physical and genetic isolation and possibly the eventual disappearance of populations and communities.

As already noted the National Planning Policy Framework (NPPF) states that Local Authorities (in which Parish Councils are included) 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 their integrated Neighbourhood Plans) to: ‘...promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations. It is essential that decision makers have access to high quality ecological advice in order to meet these requirements’.

Ecological networks in Bredfield

In Bredfield the ecological networks can be described as the sum of the interactions between:

- Core Areas : represented by the coverage of the County Wildlife Sites and the prime examples of the six different Priority Habitats across the parish
- Corridors : provided by the rich network of hedgerows; the headwater stream channels of Byng Brook and their associated riparian margins; roadside verges and arable margins, where present
- Stepping Stones : represented by the smaller areas of deciduous woodland, orchards ponds
- Restoration Areas : with the potential for enhancement into Core Areas, which is well represented here by the excellent enhancements in Jubilee Meadow
- Buffer zones : areas of scrub in field corners and edges and grassland under less intensive management all lessen the likelihood of direct or indirect impacts upon the the core Priority Habitats

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

Development Management policy DM27 and its associated guidance within the Environment Section of the SCDC Local Plan will be applied with respect to Biodiversity (and Geodiversity), [10]. This demonstrates the priorities the Council attaches to wildlife assets of local as well as national importance:

The policy states that: ‘All development proposals should:

- protect the biodiversity and geodiversity value of land and buildings and minimise fragmentation of habitats
- maximise opportunities for restoration, enhancement and connection of natural habitats
- incorporate beneficial biodiversity conservation features where appropriate’

Relevant guidance includes:

- 5.73: In order to protect nature conservation, it will also be important to protect habitats outside designated sites and to protect particular species, such as those which are rare or protected. Suffolk Biodiversity Action Plan Priority Habitats and Species as defined by Suffolk Biodiversity Partnership, and other species protected by law will be protected from harmful development. Where there is reason to suspect the presence of nature conservation interests, applications for development should be accompanied by a survey and assessment of their value, in accordance with local biodiversity validation

requirements. If present, the proposal must be sensitive to, and make provision for, their needs.

It is therefore clear that SCDC Local Plan policy and guidance is in place to ensure that the high quality wildlife and ecological assets of Bredfield can be fully taken into account during the management of any development.

Bredfield displays a high quality ecological network with a high degree of connectivity provided between core areas by tall and dense hedgerows, stream corridors and field margins.

The Neighbourhood Plan recognises the importance of all these features for wildlife in their own right and for the way they help integrate Priority Habitats and other habitats across the parish and so avoid geographical isolation. Developments in the wider countryside will be kept under review in order to prevent significant damage or deterioration within the network and positive options promoted that help to maintain and enhance ecological networks.

5.9 Future recording of Priority Species and other species

Much of the information in this report referring to the significant species of plants and animals found in Bredfield is available because individuals and groups have recorded their sightings over the years, either as a result of formal surveys or casual encounters. This knowledge has helped to identify the 'ecological capital' of the parish and it is vital that this process continues in future and involves the younger generations.

The most effective way of sharing records, so that they are both noted for posterity and can be accessed for planning and development assessments, is through the Suffolk Biodiversity Information Service webpage: 'Suffolk Biological Recording Online':

<http://www.suffolkbis.org.uk/SuffolkBRO>

It is recommended that an article highlighting the importance of submitting local records and information on how to do this is included in the Bredfield Parish magazine at the start of each year.

The Appendix in Section 8 lists plant and animal species noted in this report (with conservation designations alongside where appropriate), although this should not be seen as exhaustive. All records, even of species which may appear common, are important so that trends can be monitored.

In April 2016 the work and resources of Suffolk Biodiversity Partnership came under the aegis of Suffolk Biological Information Service (SBIS). Integration of SBP web-based materials within the SBIS website is currently in progress. In August 2016 the full lists of Suffolk Priority Species and habitats will be moved from the Suffolk Biodiversity Partnership website to the Suffolk Biodiversity Information Service website <http://www.suffolkbis.org.uk/>

6. Executive Summary to inform the Neighbourhood Plan

The following paragraphs bring together the summary statements from each sub-section of this evaluation. It is recommended that these statements are integrated within the Neighbourhood Plan to highlight the community's commitment to the environment and to develop appropriate policies to maintain and enhance the landscape and wildlife of the parish.

Landscape Assets

Two Landscape Character Types drawn from the Suffolk Landscape Character Assessment (LCA) are recognised within Bredfield. Ancient Rolling Farmlands cover the great majority of the parish. This is complemented by a small but significant inclusion of Ancient Estate Claylands along the northern boundary, which contains a historic pattern of contiguous small fields not represented elsewhere in the parish.

The citations from the LCA describe the Key Characteristics of each Landscape Character Type, the Sensitivities to Change and Forces for Change that could affect these landscapes. They also set out a range of more detailed prescriptions in terms of Development Management Guidance and Land Management Guidance, which have been made specific to this parish.

In particular these prescriptions highlight the need to 'Preserve the integrity of the remnant small field system in the north of the parish as a significant historic landscape feature'.

The Neighbourhood Plan recognises that the determination of all new developments within the parish should consistently reflect the Development Management Guidance and the Land Management Guidance detailed for the two Landscape Character Types.

Wildlife Assets

Protected Sites and County Wildlife Sites

There are no statutory Protected Wildlife Sites in Bredfield (such as Sites of Special Scientific Interest or National Nature Reserves).

There is one designated County Wildlife Site lying partly within the parish boundary – Dallinghoo Wield Wood - and another immediately adjacent to the parish boundary – Ufford Thicks.

County Wildlife Sites frequently include Priority Habitats and support Priority Species and complement Protected Wildlife Sites by helping to maintain links between them.

The high biodiversity value of many County Wildlife Sites has developed through land management practices that have allowed wildlife to thrive. The Neighbourhood Plan acknowledges that ensuring the continuation of such appropriate management is vital to maintain the wildlife value of these sites.

Priority Habitats and Species

Bredfield has a number of Suffolk Priority Habitats in its care: Ancient Species-rich Hedgerows, Arable Field Margins, Lowland Mixed Deciduous Woodland, Lowland Meadow, Ponds and Traditional Orchards.

Within these habitats a number of Suffolk Priority Species, Suffolk Character Species and Birds of Conservation Concern are present, that complement and underline their conservation value.

Although not exhaustive the list of species includes:

- Flowering plants: native black poplar
- Butterflies: grayling, small heath, wall and white-letter hairstreak
- Beetles: stag beetle
- Amphibians: common toad, great crested newt,
- Reptiles: common lizard, grass snake and slow-worm
- Birds: woodcock, barn owl, turtle dove, stock dove, cuckoo, skylark, song thrush, mistle thrush, dunnoek, linnet, bullfinch and yellowhammer
- Mammals: brown hare, otter, polecat, hedgehog

Suffolk's Nature Strategy highlights the importance of the Suffolk Biodiversity Action Plan and its associated Priority Habitats and Priority Species. It states that they are '...embedded in local planning policies' and that 'impacts on legally protected species are a material consideration in the planning process, whilst impacts on priority species and habitats are also capable of being material considerations.'

The Neighbourhood Plan recognises the significance for Suffolk's wildlife of both the variety and the extent of Priority Habitats and the Priority Species present within the parish.

Landowners and land managers are encouraged to become conversant with the relevant Priority Habitat and Priority Species citations. Links to the relevant pages on the Suffolk Biodiversity Partnership website are available on the parish website.

Landowners and managers are also encouraged to seek management advice from conservation professionals wherever appropriate to ensure the wildlife interest of these Priority Habitats can be both maintained and enhanced as ecological assets.

Other Wildlife Sites

Although not covered by statutory designations, the Neighbourhood Plan recognises the value of two other wildlife sites. Jubilee Meadow is the result of significant community commitment to conservation and enhancement of wildlife habitats within the parish. The stream channels and bankside habitats along the length of Byng Brook and its headwaters are also seen as important features providing connectivity and natural routeways.

The Built Environment and Associated Habitats

The built-up areas, gardens and associated spaces within the parish form a significant proportion of its land use and provide a wide range of semi-natural habitats with significant biodiversity value.

The Neighbourhood Plan recognises that simple actions taken across the community such as increasing the number of nesting sites for swifts or creating a community nature reserve in small areas across the parish can have significant benefits for wildlife and add an enjoyable focus to community life.

Ecological Networks and Connectivity

Bredfield displays a high quality ecological network with a high degree of connectivity provided between core areas by tall and dense hedgerows, stream corridors and field margins.

The Neighbourhood Plan recognises the importance of all these features for wildlife in their own right and for the way they help integrate Priority Habitats and other habitats across the parish and so avoid geographical isolation. Developments in the wider countryside will be kept under review in order to prevent significant damage or deterioration within the network and positive options promoted that help to maintain and enhance ecological networks.

7. References

7.1 Specific text references

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19. Suffolk Hedgerow Survey 1998-2012, Guy Ackers, Suffolk Coastal District Council Greenprint Forum, 2012
20. <http://magic.defra.gov.uk/MagicMap.aspx> accessed August 2016

7.2 General references

A Flora of Suffolk: Martin Sanford, 2010

Suffolk Biodiversity Information Service: data records for Bredfield 2000 onwards

8. Appendix

8.1 Species referenced in the main text

- SPS = Suffolk Priority Species
SCS = Suffolk Character Species
Red = Birds of Conservation Concern - Red List species
Amber = Birds of Conservation Concern - Amber List species

Plants

Adder's tongue	<i>Ophioglossum vulgatum</i>
Agrimony	<i>Agrimonia eupatoria</i>
Ash	<i>Fraxinus excelsior</i>
Barren strawberry	<i>Potentilla sterilis</i>
Bee orchid	<i>Ophrys apifera</i>
Bugle	<i>Ajuga reptans</i>
Common knapweed	<i>Centaurea nigra</i>
Common sedge	<i>Carex nigra</i>
Common sorrel	<i>Rumex acetosa</i>
Common spotted orchid	<i>Dactylorhiza fuchsii</i>
Common twayblade	<i>Listera ovata</i>
Common vetch	<i>Vicia sativa</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Dog rose	<i>Rosa canina</i>
Dogwood	<i>Cornus sanguinea</i>
Dog's mercury	<i>Mercurialis perennis</i>
Early purple orchid	<i>Orchis mascula</i>
English elm	<i>Ulmus procera</i>
False brome	<i>Brachypodium sylvaticum</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Field maple	<i>Acer campestre</i>
Goat's beard	<i>Tragopogon pratensis</i>
Hairy St John's-wort	<i>Hypericum hirsutum</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hoary ragwort	<i>Senecio erucifolius</i>
Holly	<i>Ilex aquifolium</i>
Imperforate St John's-wort	<i>Hypericum maculatum</i>
Least duckweed	<i>Lemna minuta</i>
Marsh helleborine	<i>Epipactis palustris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Native Black Poplar	<i>Populus nigra ssp. betulifolia</i> SCS
New Zealand pygmyweed	<i>Crassula helmsii</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Pedunculate oak	<i>Quercus robur</i>
Primrose	<i>Primula vulgaris</i>

Pyramidal orchid	<i>Anacamptis pyramidalis</i>
Quaking grass	<i>Briza media</i>
Southern marsh orchid	<i>Dactylorhiza praetermissa</i>
Spindle	<i>Euonymus europaeus</i>
Spurge laurel	<i>Daphne laureola</i>
Sulphur clover	<i>Trifolium ochroleucon</i>
Sycamore	<i>Acer pseudoplatanus</i>
Wild cherry	<i>Prunus avium</i>
Wood melick	<i>Melica uniflora</i>
Wood millet	<i>Milium effusum</i>
Wood sorrel	<i>Oxalis acetosella</i>
Wood spurge	<i>Euphorbia amygdaloides</i>
Yarrow	<i>Achillea millefolium</i>
Yellow oat-grass	<i>Trisetum flavescens</i>
Yorkshire fog	<i>Holcus lanatus</i>

Butterflies

Grayling	<i>Hipparchia semele</i>	SPS
Small heath	<i>Coenonympha pamphilus</i>	SPS
Wall	<i>Lasiommata megera</i>	SPS
White-letter hairstreak	<i>Satyrrium w-album</i>	SPS

Beetles

Stag beetle	<i>Lucanus servus</i>	SPS
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Amphibians

Common toad	<i>Bufo bufo</i>	SPS
Great crested newt	<i>Triturus cristatus</i>	SPS

Reptiles

Common lizard	<i>Zootoca vivipara</i>	SPS
Grass snake	<i>Natrix natrix</i>	SPS
Slow-worm	<i>Anguis fragilis</i>	SPS

...continued

Birds

Barn Owl	<i>Tyto alba</i>	SCS	
Bullfinch	<i>Pyrrhula pyrrhula</i>	SPS	Amber
Buzzard	<i>Buteo buteo</i>		
Cuckoo	<i>Cuculus canorus</i>	SPS	Red
Dunnock	<i>Prunella modularis</i>	SPS	Amber
Grey partridge	<i>Perdix perdix</i>	SPS	Red
House sparrow	<i>Passer domesticus</i>	SPS	Red
Kestrel	<i>Falco tinnunculus</i>		Amber
Linnet	<i>Carduelis cannabina</i>	SPS	Red
Mistle thrush	<i>Turdus viscivorus</i>		Red
Skylark	<i>Alauda arvensis</i>	SPS	Red
Song thrush	<i>Turdus philomelos</i>	SPS	Red
Spotted flycatcher	<i>Muscicapa striata</i>	SPS	Red
Starling	<i>Sturnus vulgaris</i>	SPS	Red
Stock dove	<i>Columba oenas</i>		Amber
Swift	<i>Apus apus</i>	SCS	Amber
Tree sparrow	<i>Passer montanus</i>	SPS	Red
Turtle dove	<i>Streptopelia turtur</i>	SPS	Red
Woodcock	<i>Scolopax rusticola</i>		Red
Yellowhammer	<i>Emberiza citronella</i>	SPS	Red

Mammals

Barbastelle	<i>Barbastella barbastellus</i>	SPS	
Brown hare	<i>Lepus europaeus</i>	SPS	
Brown long-eared bat	<i>Plecotus auritus</i>	SPS	
Common pipistrelle	<i>Pipistrellus pipistrellus</i>		
Harvest mouse	<i>Micromys minutus</i>	SPS	
Hazel dormouse	<i>Muscardinus avellanarius</i>	SPS	
Hedgehog	<i>Erinaceus europaeus</i>	SPS	
Noctule bat	<i>Nyctalus noctula</i>	SPS	
Otter	<i>Lutra lutra</i>	SPS	
Polecat	<i>Mustela putorius</i>	SPS	
Reeves's muntjac	<i>Muntiacus reevesi</i>		
Roe deer	<i>Capreolus capriolus</i>		
Serotine	<i>Eptesicus serotinus</i>		
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	SPS	

ends