

# **Landscape and Wildlife Evaluation & Biodiversity Audit**

**Hopton Parish**

**Andrea Hanks  
2020**

## **Landscape and Wildlife Evaluation & Biodiversity Audit for Hopton Parish**

Hopton is a small Suffolk parish to the extreme NE of the West Suffolk District. The village is sited on both sides of an area of valley fenland, which includes conservation sites of both national and international importance.

This report is an overview of Hopton's natural environment in 2020 with some historical context where available. In the rapidly changing world in which we live, this is a snapshot at the beginning of the 21<sup>st</sup> century.

This report also contains some recommendations that will help parishioners enhance, support and maintain their natural environment for future generations. Encouraging ecological connectivity, engaging the community with the wider environment, and maintaining the biodiversity that is so unique to the parish will ensure Hopton continues to be a green parish, and contribute to wider environmental aims in Suffolk.

### **Acknowledgements**

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**Andrea Hanks, 2020**

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# 1. Introduction

## 1.1 Purpose

This is an attempt to bring together the work and records of many groups and agencies concerning the natural environment of Hopton alongside a current phase 1 style audit of habitats within the parish and a baseline record of species observed 2019 and 2020.

The first part is in the style of a Landscape and Wildlife evaluation as required for a Neighbourhood plan. This is written without legislation references for ease of reading. They can be inserted at a later stage if required.

## 1.2 Methodology

Surveying has been carried out from public footpaths, bye-ways, permissive paths, roads and farm tracks where access has been granted. Over 80% was visible from these paths. It is hoped to extend the field survey work further in the future with landowner permission.

## 1.3 Note on Resources and References

*The following is an overview of the resources used when compiling this report. Full references are given in the appendices.*

- Personal observations from phase 1 style audit of the parish using footpaths, tracks, public roads and access to private sites where requested. This began in April 2020 and is ongoing.
- Personal records from parishioners of Hopton who have volunteered their lists and personal observations of species
- DEFRA MAGIC site which holds a database of environmental schemes, licensed areas and areas of interest to monitor from many agencies
- Vision 2031 – planning and development of West Suffolk
- Google Earth; current and historic
- Input from Suffolk Wildlife Trust (SWT) site warden and SWT drone footage of Hopton and Market Weston fens
- Plantlife regional officer - personal input
- Suffolk hedgerow survey
- NBN database for species records
- Suffolk landscapes interactive map on landscape characteristics
- Hopton parish website historical record
- SBIS record of priority habitats and species within the county
- SCC documents on landscape characteristics
- Historic survey of Knettishall walled covert
- Fen management handbook (2011)
- Suffolk bat survey 2016
- Suffolk bird atlas BTO (2011)

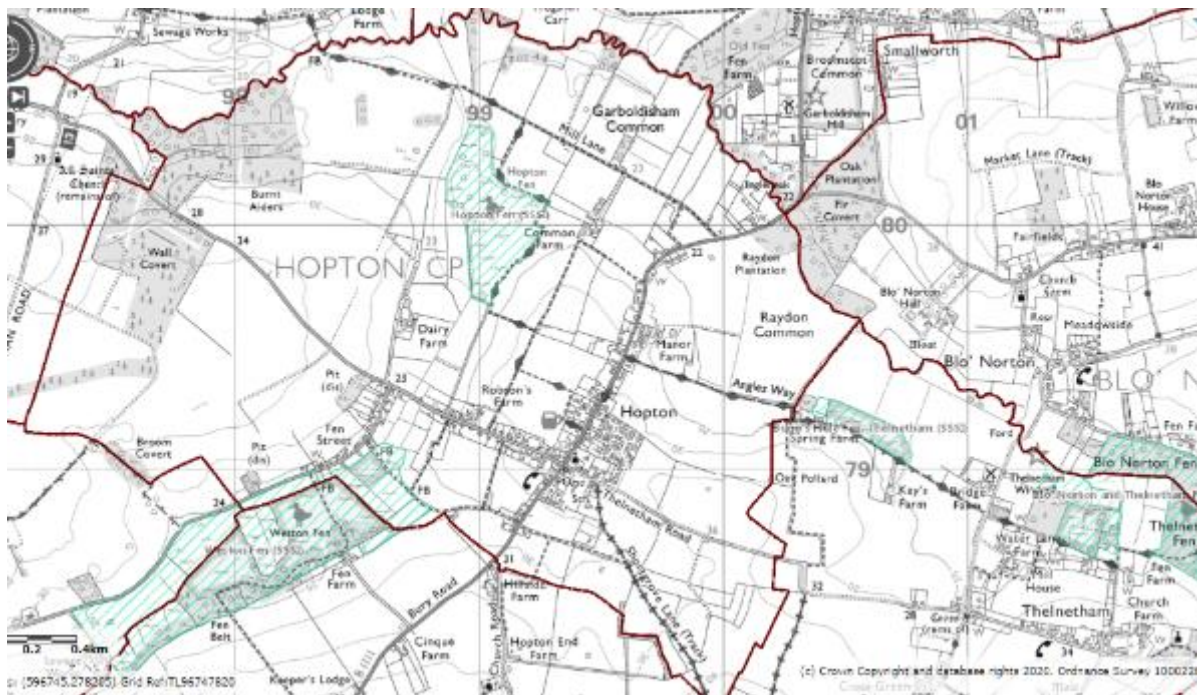
Please note that survey work is still on-going. General references on identification guides are also given in the appendices. Plant and animal species are referred to by

their common name in the text. They are listed with their binomial scientific names in the list of records from the parish at the end of the report.

It is hoped that this biodiversity audit can then serve as a record which can be built upon/updated annually and record changes as they occur. If possible, this would involve an online record of sightings for members of the parish which could then feed into the databases of the Suffolk Biodiversity Information Service and National database (NBN).

#### 1.4 Overview of the Parish – Location, Physical Features and Statistics

Hopton is located roughly 15 miles NE of Bury St Edmunds with the northern boundary of the parish lying on the Suffolk/Norfolk border following the path of the Little Ouse river. The parish shares boundaries with the Suffolk parishes of (clockwise) Thelnetham, Market Weston, Coney Weston, Knettishall and the Norfolk parishes of Gasthorpe and Garboldisham.



*Fig. 1: Hopton and the surrounding area, SSSI sites shown in blue  
Source: MAGIC maps*

The physical landscape ranges from 25mOD in the East to 35mOD in the West with the central peat filled valley of Hopton brook. This drains the parish in a roughly south west to north direction and forms a minor headwater of the river Little Ouse. The main residential section of the village is either side of Bury Road (B1111), north of the crossroads and along Nethergate street, with developments to the west of Bury Road and infill development to the east. There are also residential properties along Fen Street and Mill Lane. There are two main clusters of listed buildings, the first to the western end of Nethergate Street and the second centred around the crossroads and church.

A Conservation Area designation covers the area around the church and stretches northwards to cover the properties that front on to the High Street as far as Hopton House.

Hopton's historic settlement core centres on the Street and the church. Multi-period sites are recorded in the County Historic Environment Record to the south of Nethergate Street and to the west of Manor Farm at the northern boundary of Hopton. There are two locations of particular note in terms of archaeology. Three large archaeological designated sites are situated south of Nethergate Street and one large site covers land to the west of Manor Farm which is located adjacent to the northern boundary of Hopton.

There is a flood zone which lies to the west of Hopton, between the residential development at Fen Street and the edge of development on Nethergate Street. A large flood risk area is also located to the north east of the village, covering Raydon Common. The current population of Hopton is approximately 650.



*Fig. 2: Residential development in Hopton showing conservation area and proposed development site.*

*Source: St. Edmundsbury Borough Council (Rural Vision 31*

#### *Conservation areas within Hopton*

Land to the North and West of Hopton are designated Special Landscape areas, falling within the National Landscape Character profile of Breckland. Within the parish there are two SSIs designated in the 1980s: Hopton Fen, Market Weston Fen meadows, including woodland margins surrounding the site. These valley fens are part of the Waveney and Little Ouse systems.

The woodland margins and meadows associated with Market Weston Fen (Weston Fen), which lie within the parish, are recognised as Special Area of Conservation (SAC), being of international importance. To the North West of the boardwalk meadow is also a designated County Wildlife Site. Hopton parish has a good network of well maintained footpaths, byways and lanes and is on the Angles Way long distance footpath.

## 2. Landscape Assets of the Parish

### 2.1 Protected Landscapes

Hopton lies within a Special Landscape area (SLA). These are areas that possess a quality of landscape that has countrywide significance and are defined in Local Plans.

SLAs have characteristics of one or more of the following:

- a) River valleys which still possess traditional grazing meadows with their hedgerows, dykes and associated flora and fauna.
- b) The Brecks, including remaining heathland, former heath recently ploughed, other arable areas, river valleys and the characteristic belts of Scots pine
- c) Historic parklands and gardens which still possess significant features of their former status
- d) Other areas of countryside where topography and natural vegetation, particularly broad-leaved woodland, combine to produce an area of special landscape quality and character.

Hopton has both a river valley with SSSIs and SAC sites and is on the edge of the Brecks.

The Brecks is among the warmest and driest areas of the UK. It has free draining soils and areas of dry heath and grassland communities. In the 19<sup>th</sup> century the area was termed a sandy waste and one local farmer, who moved into the area in the 1960s, told me that his agent described the farm as grade 4 land – essentially dry, stony, waste land that would be hard to cultivate and crop.

The valuation of tithes from 1829 – 1835 describe the parish land on the south side abutting Thelnetham as being of a very rich and superior description. They went on to say: 'There is a large quantity of poor fen and heathland and between the village and the fen and towards the north west adjoining Coney Weston the consists principally of a mixed gravel and loam'. The village farm acreage at that time comprised 845 acres arable and 296 acres fen, heath, roads and wastes.

During the Middle Ages, the large fields of today would have been divided into strips of about an acre. Landholders would have a number of strips divided about the parish to afford a share of both good and poor land. There are traces of this system still being in place according to the enclosures map of 1827.

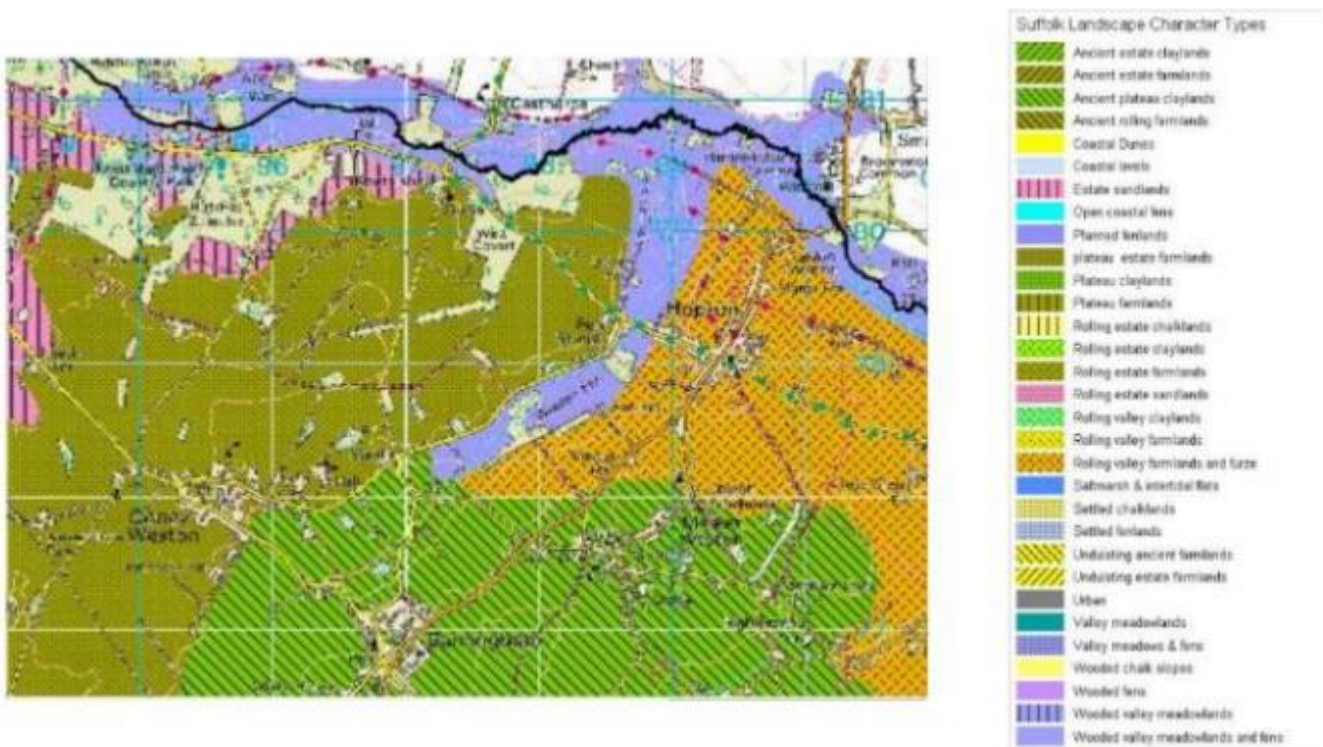
### 2.2 Suffolk Landscape Character Assessment

This assessment has, to some extent, replaced, or allowed for a review of, the SLA designation. 'Landscape character assessments' are in-depth and based on precise criteria that produce prescriptions which can be 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).

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.



*Fig. 3: Landscape Character types covering Hopton Parish*  
 Source: Suffolk County Council

Wooded valley meadow lands and Fens run from the east side of the road in Fen Street, across the valley floor and follow the course of Hopton brook to the Little Ouse valley. To the east of the valley you have plateau estate farmlands which slowly give way to rolling estate sand lands and to the west, rolling valley farmland and furze.

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 and land management. An abridged version of these as they relate to Hopton can be found in Appendix 5.7

The key characteristics as they relate to Hopton are:

- *Plateau estate farmland to the east of the parish*  
Medium to large scale, ordered arable landscape on sandy soils characterised by estate farms and small discrete villages and hamlets. Fragments of lowland heath remain with patches of ancient woodland, discrete tree belts, coverts and occasional larger plantations from 18<sup>th</sup> and 19<sup>th</sup> century parkland. Historically, much of the land to the West of the village belonged to the Riddlesworth estate who managed a number of small farms.
  
- *Rolling valley farmlands and furze to the west of the parish*  
Valleys with prominent river terraces of sandy soil. Small areas of gorse heath. A co-axial field system with boundaries parallel or at right angles to a feature such as a river. Multi-species hedgerows of shrubs (hawthorn, blackthorn, dogwood) and trees (oak, ash and field maple). Fragmentary woodland cover. This landscape is seen from Hopton to Hoxne.
  
- *Wooded valley meadow lands and fens in the central valley*  
This landscape is only found in the Waveney valley and the Little Ouse valley. Flat bottomed valleys formed from glacial activity and filled with peat. Traditionally left as open fen, used for animal pasture or utilised as wet woodland or alder carr. Typically, there were short lengths of drain at right angles to the river or stream. At Hopton common the large common has been enclosed and sub divided into geometric units.



*Fig. 4: Hopton Common showing smaller subdivisions. Source: Google Earth*

### 3. Evaluation of Wildlife Assets

There is a hierarchy of protected wildlife sites within Suffolk with a number of designations applying to Hopton.

#### 3.1 Sites of Special Scientific Interest

8% of Suffolk has national designation as Sites of Special Scientific interest, reflecting the importance of habitats and species found there. Two SSIs are within the parish. Hopton Fen nature reserve and parts of Market Weston Fen nature reserve. This is often termed Weston Fen on maps as the original fen boundaries were in Hopton, Coney Weston and Market Weston. The boundaries of Market Weston fen are also considered to be areas of international importance as Special Areas for Conservation (SAC).

#### 3.2 County Wildlife Sites

These are areas known to be of county or regional importance for wildlife that have a key role in the conservation of Suffolk's biodiversity. This is non-statutory but recognises the site's high value for biodiversity. The meadow with this status in Hopton also falls slightly NW of the SSI of Weston fen. (Boardwalk meadow) It is private land and so was only remotely surveyed from a footpath.

#### 3.3 Priority Habitats

The UK Biodiversity Action Plan priority habitats is a wide ranging list of semi-natural habitat types identified as being the most threatened and requiring conservation action. Within Suffolk there 24 priority habitats of which the following 10 have been recognised in Hopton from field survey.

- A. Arable field margins
- B. Ancient species rich hedgerows
- C. Fens
- D. Lowland meadows
- E. Lowland mixed deciduous woodland
- F. Open mosaic habitat
- G. Ponds
- H. Rivers
- I. Wet woodland
- J. Built environment and associated habitats

The Priority Habitats are described in more in this report with reference to specific sites if possible, thus highlighting the ecological assets within Hopton. The general description is taken from the Local Biodiversity Action Plan, written and endorsed by the Suffolk Biodiversity partnership.

In most cases the habitat descriptions also include references to Priority Species as supporting evidence. These are listed if they have been recorded within the parish in 2019/2020 or are recent records on the Suffolk Biodiversity Information Service database. (NBN database). The habitats are dealt with alphabetically and not in any order of value.

## **A. Arable Field Margins**

### *General description of Arable Field Margins as a priority habitat in Suffolk*

These are herbaceous strips between an arable crop and the field boundary, managed specifically to provide benefits for wildlife. They may be cropped, left fallow, managed as a temporary grassland habitat or as a more permanent tussocky grassland strip. Such strips provide wildlife corridors and connectivity between important habitats; buffers sensitive habitats and helps to reduce diffuse pollution.

Up to 75% of the biodiversity within an arable field can be found in the margins, regardless of the farming practice. The margins provide linkage between all farmland habitats and buffers them against farm operations.

A sympathetically managed field margin can provide sites for ground-nesting birds and hunting areas for barn owls and other birds of prey. They are refuges for small mammals and important habitat for bats and amphibians, particularly where it buffers and links to water bodies. Field margins are a vital habitat and refuge for grasshoppers and other insects that provide food for the young of birds such as grey partridges. Wildflowers within these strips attract nectar-feeding insects, such as bees and hover flies, which are important pollinators.

### *Arable Field Margins in Hopton*

Within the parish there are a number of arable field margins providing important habitats. Some are managed for hay or planted as forage crops and others are uncut access track edges between woodland strips. Sometimes they are wide margins left alongside old hedgerows/hedge trees and ditches or even bramble edges trimmed and maintained along old road banks as a means of limiting access to fields.

Of particular note are:

- The wide field margin to the North East of Hopton Fen. Cleared of overhanging branches from the Fen edge in winter 2019, this was first colonised by ruderal species and then, over the growing season has developed into a tall herb rich swath with a wide variety of flowers for flying insects.
- Small, seeded hay meadows, such as one belonging to Robson's farm and the other along Shortgrove Lane. The Robson's Farm meadow was a good site for Skylarks (A Suffolk priority species) early in the season and a Barn Owl was observed hunting there on more than one occasion.
- Wide, grassy farm tracks, often alongside a herb filled ditch, alongside hedges and between fields such as Greyhound Lane or the tacks leading from Mill Lane to Hopton Common.
- Alternative permanent crops like the Lucerne fields running along Fen Street have also had a positive impact on the parish's biodiversity. This crop particularly favours overwintering caterpillars of the common blue butterfly and there was a significant number noted early in the season.

- The bramble banks to the south of Knettishall Road where Little Owl is sometimes seen. The brambles provide thick cover and food for many small mammals and invertebrates as well as presenting a daunting field boundary.

Some of the Suffolk Priority Species observed on or near arable crops and their margins within the parish:

- Skylark - seen and heard at many sites across the village, particularly the open arable areas near Knettishall airfield.
- Starling - feeding on fields. Nesting in houses.
- Lapwing - occasional winter views on stubble. Known to have nested in parish
- Grass snake
- Brown Hare - commonly seen on open arable land
- Hedgehog - occasional 2019

Not on the current priority list but listed by Plantlife as plants of concern and found on arable fields are:

- Corn Spurrey - of Amber concern in Breckland. Frequently found in arable fields to the west.
- Henbane – a plant that is declining in the wild and listed as vulnerable. Found in stubble fields mid-August.

#### *Activities and Developments that could affect Arable Field Margin Priority Habitat in Hopton*

The availability of and changes to agri-environment schemes are significant drivers affecting the management of arable land and field margins for wildlife. The Environmental Land Management Scheme (ELMS) is the latest to be rolled out by DEFRA. Under this scheme farmers will be paid for work that enhances the environment, such as tree or hedge planting, or creating or restoring habitats for wildlife. This is a national programme that will see a seven year transition from existing schemes, as laid out in the Agricultural Act 2020.



*Fig. 5: Track from Nethergate Street to Common Farm. Arable field margin and small wooded copse  
Source: Photo by Andrea Hanks, 2020*

## ***B. Ancient Species Rich Hedgerows***

### *General description of hedges as a priority habitat in Suffolk*

Hedges are boundary lines of trees and/or shrubs, sometimes with banks, ditches and grass verges. Those considered ancient or species rich are reservoirs of biodiversity in the landscape as well as having cultural, historical and landscape importance. They are wildlife corridors linking habitats of high biodiversity value such as woodlands and wetlands thus enabling bats, other small mammals and invertebrates to move around under cover from predators.

Ancient hedges that support a greater diversity of plants and animals than subsequent hedges were in existence before the Enclosure Acts passed between 1720 and 1840.

Species rich hedgerows contain 5 or more woody species in a 30 metre length. 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.

### *Hedgerows in Hopton Parish*

There is a relatively extensive network of hedges within the parish, particularly to the North and East. There has never been an extensive hedge network to the West of the parish and the trimmed roadside hedges and remnant field hedges towards Knettishall are following historical field boundaries.

Hopton was one of the many parishes covered by the Suffolk Hedgerow survey, 1998-2012. The report, published in 2012, summarised the results for Hopton as:

<b>Number of hedges surveyed</b>	<b>165</b>
Hedges with 4 species or fewer	40 (24%)
Hedges with 5-7 species	72 (44%)
Hedges with 8 or more species	53 (32%)

76% of the sampled hedgerows within the parish can be considered species rich with 5 or more species present. This is slightly less than the Suffolk average

Although hedges are less common to the West of the parish the remnant hedge lines contain both veteran and trees in the later stage of life.

Veteran trees are those where the age and structure of the tree has created a wide range of microhabitats so that its biodiversity value is of the highest order. A simple guide to whether a tree is veteran is to measure the girth at chest height. Veteran trees will measure 4.2m or more, although there will be species variation.

Senescent and dead and dying trees are also of value providing standing dead timber for decomposers and, by hollowing out, shelter for other animals. In Hopton, a pair of migrating Egyptian geese nested in an old hollow tree for a number of years, until usurped by Jackdaws in 2020.

Dead and dying trees should be allowed to remain as standing timber for as long as they can and then, where possible fallen timber should remain close to the tree. This is habitat for a wide variety of invertebrates, like stag beetles as the larvae live in, and feed on, subterranean decaying wood (stumps, roots) as do the other insect larvae. Fungi and lichens also thrive on this dead timber.

To the West of the parish the hedges are generally well maintained, again following old field boundary lines. There is evidence of the work carried out in the early 1990s by Hopton Parish Council of planting to improve some of the hedges. A grant was received in the form of bare rooted, native hedge stock and this was used to fill gaps in existing hedgerows.

Hedgerows are an important wildlife resource within the parish. When parish volunteers were engaged in the hedgerow survey, they were asked to consider the management regime followed by the hedge owner.

Within the parish we find examples of all management types apart from coppice and recently laid hedges. An ideal hedge is one where there is a well-developed structure with a thick or overgrown base whether this is a roadside verge or field boundary

	Cross section	Side view	Notes
Coppiced			The trees have been cut low to the ground
Remnant			Only a few shrubs or trees remain. There are more gaps than hedge. The hedge remnants may have been cut/pollarded.
Laid			Laid within last few years: a good solid boundary managed in a traditional fashion.
Well managed			Minimum 2m high x 1 1/2m wide.
Regularly trimmed			Less than 2m high x 1 1/2m wide resulting in inadequate wildlife cover.
Overgrown with no undergrowth			The hedge has become a low line of low trees.
Mature with undergrowth			The hedge has been allowed to grow.
Mature with bushy outgrowths at base			The hedge is spreading onto verge and field margin.

Fig. 6: Summary of hedge types  
Source: Suffolk Hedgerow survey

The main National Biodiversity Action Plan species in Suffolk that use hedges, including associated features such as grassy verges, are: Brown Hare, Skylark, Grey Partridge, Song Thrush, Linnet, Turtle Dove, Corn Bunting, Tree Sparrow, Bullfinch, and Pipistrelle Bat. Other fauna using hedges include small mammals, such as the Hedgehog, hibernating reptiles and amphibians, and invertebrates such as White-letter Hairstreak butterfly in Elm hedges.

*Factors which might affect the biodiversity value of hedges in the future*

There are a number of factors which may affect the biodiversity found in Hopton hedgerows. These include the following:

- Hedge removal to facilitate agricultural operations (now only with planning consent)
- Under-management and neglect of hedges leads to a reduction in their biodiversity value and structural coherence (and occasionally leads to complete disappearance).
- Too frequent flailing of hedges is causing a reduction in their value and can destroy their structural integrity through loss of fruit, (most hedgerow plants only flower and fruit on their 2<sup>nd</sup> year growth), and young saplings
- Close ploughing can damage shrub and tree roots.
- Agro-chemicals degrade plant and invertebrate populations, especially where the crop extends to the hedge base.
- The number of hedgerow trees (often veteran trees, a feature of Suffolk landscapes) is declining; losses are not being replaced fast enough.
- Roadside verges being cut too early in the year so plants are unable to set seed.



*Fig. 7: Remnant hedge line with veteran boundary oak trees*

*Source: Photo by Andrea Hanks, 2020*



*Fig. 8: Standing dead timber or dying trees provide a wealth of micro habitats*

*Source: Photo by Andrea Hanks, 2020*



*Fig. 9: Roadside hedge with hawthorn, black thorn and apple trees. The wide, late mown verge has a wealth of flowering plants in the spring.*

*Source: Photo by Andrea Hanks, 2020*

### **C. Fens**

#### *General description of Fens as a priority habitat in Suffolk*

The UK is thought to host a large proportion of the fen surviving in the EU. As in other parts of Europe, fen vegetation has declined dramatically in the past century. Fens are peatlands which receive water and nutrients from the soil, rock and ground water as well as from rainfall.

The word 'fen' is derived from the old english 'fenn' meaning marsh, dirt or mud. It is estimated that there was 3,400km<sup>2</sup> of fen in England in 1637. Today there is thought to be only 10km<sup>2</sup>.

The Waveney and Little Ouse Valley Fens were formed 300,000 years ago, when glaciers carved out large river valleys as far south as East Anglia. Filled with chalk, clay, sand and gravel, they flooded when the glaciers retreated leaving a mosaic of large lakes along the valleys. Over time, these filled with thick layers of peat which, depending on the nature of the underlying deposits, are sometimes acidic and sometimes lime-rich. Only 43 of these fen mires survive in the UK.

People also shaped the landscape here, with centuries of digging for peat and cutting reeds for thatching. More recently, drainage and water abstraction nearly brought an end to the fens, but many have now been saved. As water levels have returned, so has the wildlife which is thriving once more.

Fen habitats support a diversity of plant and animal communities. Some can contain up to 550 species of higher plants, a third of our native plant species; up to and occasionally more than half the UK's species of dragonflies, several thousand other insect species, as well as being an important habitat for a range of aquatic beetles.

Plantlife has declared the Waveney and Little Ouse Valley Fens, which include both Hopton and Weston Fen Important Plant Areas (IPA).

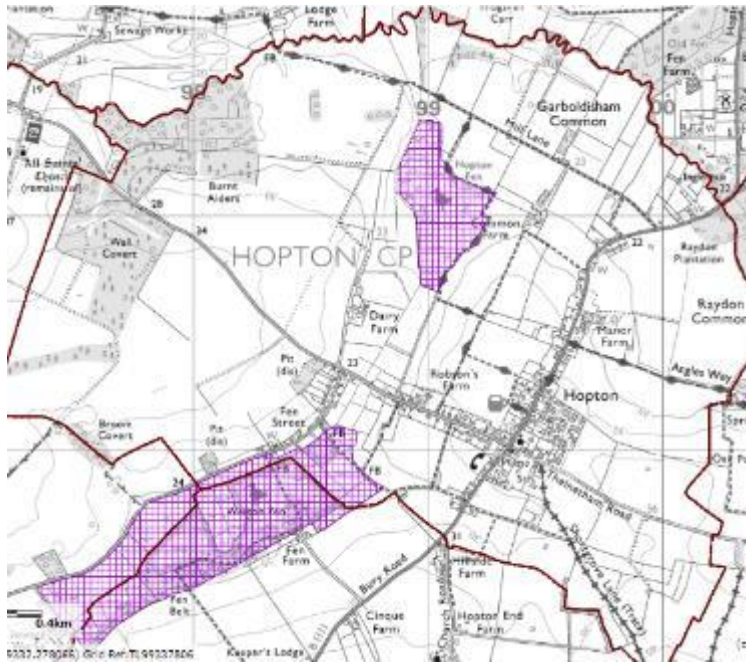


Fig. 10: Hopton Parish showing the location of Hopton and Market Weston Fens  
Source: MAGIC maps

Notes on Hopton Fen, Grid ref: TL98SE, TL97NE

Hopton Fen is one of a series of valley fens spanning the watershed between the headwaters of the Waveney and Little Ouse. The south and western edges of the fen are bound by Hopton brook and drains from lowland pasture whilst to the east is a raised sandy edge leading onto arable land. The shape of the fen has remained unchanged for hundreds of years.



Fig. 11: Hopton Fen 1885  
Source: National Library of Scotland OS, one inch 1885



Fig. 12: Hopton Fen 2019  
Source: Google Earth 2019

Hopton Fen is owned by the Hopton Combined Charities who protect it from drainage and is leased to SWT. They manage it in a way that has enhanced its value as a biodiverse habitat. The fen was first designated as an SSSI in 1958 under the

1949 Act and then re-notified in 1984 under the 1981 Act. Traditionally the fen would have been used as a source of peat, rush and sedge (for thatching) and fen hay for livestock.

Lack of demand for fen products since WW2 has meant that there has been a slow increase in the amount of scrub woodlands around the fen margins and, when re-designated as an SSSI in 1984, it was noted that the sedge beds were losing some of their biodiversity due to a build up of sedge litter. Management by the SWT has aimed to mimic some of the traditional ways of harvesting the fen which has led to an improvement in the diversity of the fen flora found today. Removal of encroaching scrub has ensured that the fen has remained open, rather than develop into a wet woodland. Annual and rotational mowing of the fen vegetation has removed built up fen litter and means that traditional sedge and reed communities remain healthy and rare species have started to reappear. Today, grazing by young cattle during the summer months helps maintain the open fen communities. Management has also seen the excavation of ponds and scrapes to mimic the effect of peat cutting. These scrapes are rich communities in their own right.

Plant communities found on the fen include:

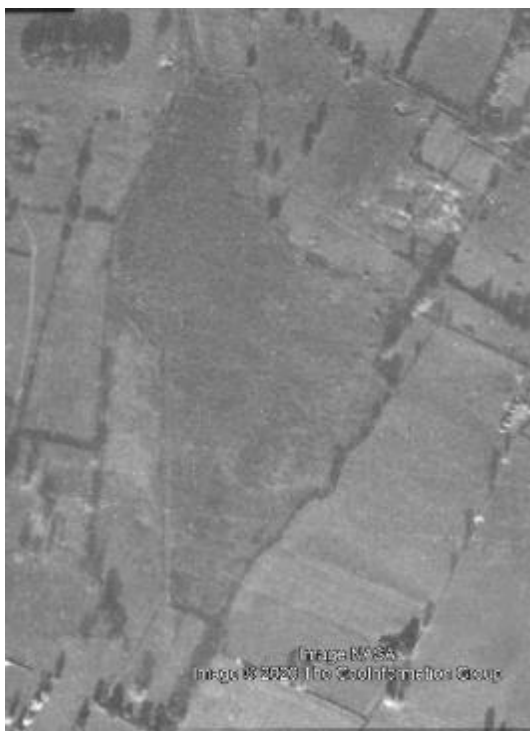
- a) *Tall reed (Phragmites australis) dominated fen.*  
These would once have been the source of reed for thatching, roof insulating or as an infill of house walls as is still evident in some of the older village houses. Within the reed fen you find purple loosestrife, marsh bedstraw and greater birds foot trefoil.
- b) *Sedge dominated fen.*  
This is saw sedge (*Cladium mariscus*). It is very strong, flexible and durable and was once used as the capping material for thatched houses. It is also vicious as the saw toothed margins of the plant can cut to the bone and has gone out of favour as a building material.
- c) *Mixed fen with a variety of sedge and rushes*  
This includes the greater tussock sedge (*Carex paniculata*)
- d) *Turf ponds and scrapes fed by small springs running under the sandy arable land.*  
These support wet fen communities; brown moss, marsh lousewort, marsh valerian, Southern marsh orchid and the rare white form of the early southern marsh orchid (*Dactylorhiza incarnata* subsp. *ochroleuca*). Sadly, these were grazed prior to setting seed in 2020 due to the exceptionally dry spring. There is also a seepage area dominated by black bog rush and blunt flowering rush. Here you will find distinctive mosses and lichens.
- e) *Willow and Alder carr woodland* supporting damp woodland species.
- f) *Bracken dominated sandy areas*  
These form a margin between the open fen and the arable land.

Raised areas within the open fen formed by the spoil left from excavated scrapes or where chalky deposits come to the surface, these slightly drier areas are where fen-meadow has developed. The grass traditionally cut for hay and grazed by livestock.

Dominated by grass, many special plants grow here including meadow thistle, ragged robin and narrow leaved marsh orchid. Here you also find yellow rattle, (a wet grassland plant that is parasitic on grasses), marsh thistle and meadow buttercup.

Monitoring of the condition of the fen is important in ensuring its continuation. Around the site you will find piezometer tubes set deep into the peat layer. These allow the water level to be recorded. Like the whole country the fen has experienced dry conditions over the last two years due to changing weather patterns.

Historically, the fen is also of interest because of a long concrete path that leads into the centre. This may have been created during the second world war as a decoy runway (The aim was to convince the Luftwaffe that they had found Knettishall airfield) or was part of the airfield outer landing light system. Further information is included in Appendix 5.5. The aerial photograph below was taken on 1/1/1945 and shows how the fen was an open area as the fen products had value to the village so scrub woodland had not encroached. The 'runway' is easier to see in the 2020 image, running from the SW corner into the centre.



*Fig. 13: Hopton Fen 1945*  
*Source: Google Earth*



*Fig. 14: Hopton Fen 2020*  
*Source: Google Earth*



*Fig. 15: Mown block of sedge fen, Hopton August 2020.*

*Source: Photo by Andrea Hanks, 2020*

Mown by a pedestrian-operated reciprocating cutter, the sedge is then raked out by hand and winched to habitat piles within the wooded margins where it slowly decomposes. As late as 1990 it was still cut, cleaned and bundled to order for thatching.



*Fig. 16: Concrete path running through the centre of Hopton Fen.*

*Source: Photo by Andrea Hanks, 2020*

This is either a decoy runway or part of the landing light system for RAF Knettishall. There is evidence of electrical cables and fittings are still present.

#### ***D. Lowland Meadows***

*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 agrochemicals. 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 of other wildlife, including birds, small mammals and invertebrates. 96% of this Priority Habitat has been lost in Suffolk since 1939, with less than 2000 hectares still remaining.

#### *Lowland Meadows in Hopton*

Hopton is rich in this lowland meadow habitat. The meadows along the valley of Hopton brook in particular and some of the meadows along the Little Ouse. Most of these are managed by haymaking with light grazing. They are considered to be some of the most valuable habitats within the parish by parishioners who have commented on both the beauty of these meadows and the wide variety of flowering plants they support. Barn owls are often observed hunting along these meadows and a Little Egret was frequently found in the meadows, alongside the brook, during 2019 and 2020.

The churchyard at Hopton, although small is also now managed, in part, as a traditional hay meadow.

Examples of lowland meadows in Hopton, surveyed in 2020, are listed below:

##### *– Boardwalk Meadow SSSI*

Floristically rich, this is one of the most visited and photographed sites in the parish. It was designated as an SSSI in 1983 as part of a protective buffer zone for Weston Fen. Sadly, like many of the damp lowland meadows it is showing signs of some drying and is vulnerable to compaction of the soil.

Managed by an annual hay cut and some grazing in the autumn the meadow recorded around 50 flowering plant species this year, not including grasses. In the 1980s it was a wealth of parasitic yellow rattle, growing on grass. This is has naturally migrated to other sites and can now be found on both Hopton and Weston Fen. Within the parish it is one of the few sites where common spotted orchid can be seen every year and these are well recorded by photographers.

Using aerial photography, this field appears to be little changed from the 1940s. The drainage ditch on its Northern edge was dredge in the winter of 2019 and has a variety of wetland plants recolonising it like lesser water parsnip, figwort, hemp agrimony and great willow herb. The spoil heap left from this work has been colonised by ruderal species.

##### *– Donkey Field*

This is a small remnant of Common Land owned by Hopton Parish Council. It has for many years been grazed by a single donkey and its flora shows an interesting transition from the deep peat of the valley to sandy wasteland.

Reflecting the wetland habitat there is an area dominated by water mint. On the sandy section can be found sheep's sorrel and fescue grass. The remnant dividing hedge between this field and the neighbouring lowland meadow has some of the oldest apple trees in the parish. Shown on the 1940 aerial photographs as trees with full canopies, this would make them at least 80years old.

This tiny field is alive with invertebrate life in the summer and has been a haven for grass snakes and common frogs.

Leading south from the Donkey field along Fen Street is a series of other small meadows. Two of these are now scrub dominated and two are still open meadow with thick grass and reed cover. They are very occasionally grazed by cattle.

– *Fen Farm meadow SSSI*

This is a meadow with a dense grass sward that is managed with an annual hay cut. It borders the south eastern edge of Weston Fen and is bounded by a drainage dyke to the north, a well managed hedge to the east and tall alder, ash and oak to the West.

– *County Wildlife Site meadow*

The footpath runs along the edge of this site, so it was only surveyed remotely as it is private land. The site was grazed until April this year by horses and then cut for hay mid-July. It has a damp section, abutting carr woodland and a higher, drier area running into close grazed meadows.

The field shares a boundary with the Boardwalk SSSI along the ditch edge and has a well managed hedge to the West where the footpath runs. In the summer it is a sea of oxeye daisies and used to be a site for yellow rattle.

– *Nethergate Street Meadow*

Running to the west of Hopton Brook. This is a traditionally managed wet meadow with a hay crop being taken in August of this year. There is occasional light grazing. The meadow is bound by drainage ditches and is rich in grasses and rushes. The ditches, some of which were dredge winter 2019, are rich in wetland plant species like reed, hemp agrimony, great willow herb and lesser water parsnip.

– *Hopton Fen meadows*

The meadows, running along Hopton brook and surrounding the eastern edge of Hopton Fen are beautiful examples of this traditional habitat. Cut for hay, with some grazing for cattle. Crossed by draining ditches, these meadows also have examples of old, pollarded boundary oaks and species rich hedges.

*Activities and developments most likely to affect the Lowland Meadow Priority Habitat in Hopton*

Nationally, there is now only an estimated 15000ha of species rich grassland. However, many of the characteristics described for this character type find a parallel

in the more traditional churchyards, and to some extent village greens, commons and roadside verges, where the flora and fauna can mirror the lowland meadow habitat.

Across the UK this habitat is still threatened. Some threats are of agricultural improvements that have a historical basis such as drainage, ploughing, reseeding and use of agro-chemicals. Others are based on problems with management where the site is isolated or there is pressure for horse grazing. Examples include:

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

Most of the meadows in Hopton are well managed and a village asset. It is hoped that there will be more survey work done on these in the future.



*Fig. 17: Figwort growing in Boardwalk meadow ditch, cleared winter 2019*  
Source: Photo by Andrea Hanks, 2020



*Fig. 18: Thick grass of Fen Farm Meadow looking towards Market Weston*  
Source: Photo by Andrea Hanks, 2020

### ***E. Lowland Mixed Deciduous Woodlands***

*General description of this priority habitat in Suffolk*

In Suffolk, this priority habitat includes all broadleaf stands and mixed broadleaf and coniferous stands where up to 80% of the cover is made up of broadleaf species. It includes all semi-natural woodland, except wet woodland, wood pasture and parkland.

These woodlands may be ancient, with continuous woodland cover since at least 1600, and many are categorised as ancient seminatural woodland. Fragments of

ancient woodland may remain within the parish under broadleaf plantation. To be included, the site must be more than 0.25ha and can be scrub woodland, coppice or recently felled.

#### *Lowland Mixed Deciduous Woodland areas within Hopton*

The following are woodland sites within the parish identified from OS 1:25,000 maps and Google Earth imagery. The grid reference is for the centre of the block.

<b>Woodland Site</b>	<b>Grid Reference</b>
Broom Covert	TL975790
Walled Covert	TL976799
Fen Street parish pit	TL980789
Knettishall Hill pit	TL984793
Raydon plantation	TM 002799
Dairy Farm common woodland	TL986804

There are two more possible sites on the edge of the Little Ouse/ Hopton Common. These have only been viewed from a distance and are likely to be wet woodland.

#### *– Broom Covert*

Broom covert is shown on the 1883 OS map as part of a larger woodland area than it is today. To the North it was connected to another area of woodland known as Hill acre covert. A covert is an area for raising game, probably pheasants. Broom covert is still used for this purpose today.

Between the bridle path and the woodland edge is a thick bramble bank. Within the woodland there are areas of oak, silver birch, holly and occasional hawthorn trees. Some of the oak trees are veteran pollards, valuable biodiversity resources in their own right. For 2/3 of the woodland the under storey is sparse with patches of bramble, bracken, dog rose, gorse and nettle. In early spring there were clumps of climbing cordyali (Ceratocapnos claviculata), a native annual of free draining soils found in woodland most commonly on the Sandlings. An unusual plant to find in the Brecks where the possibility of frost at any time of the year threatens its survival.

Researching old maps, it was probably during WWII Hill acre covert was lost to airfield construction. Broom Covert itself was on the edge of a defined 'Technical area' and may have been used to provide cover for equipment. The restricted byway, which exists today, was a paved access track from Fen Street and still a drivable RUPP in the 1980s.

The North West section of the covert has an area replanted within the last 40 years (possibly more recent than that). This replanting is predominantly with oak and ash with a healthy ground cover of herb species.

#### *– Walled Covert*

Walled covert is approximately 20ha (50acres). It is thought to have been a medieval common field or common woodland prior to 1741 and may have developed as a

woodland following the Black death of 1349. Following the Hopton enclosures act of 1826 it had many owners.

By 1846 it was described as a plantation having been replanted with conifers and oaks several times as it was developed as a hunting and shooting covert by the owner of the Riddlesworth estate, Thomas Thornhill. The historic wall was constructed at about this time to prevent game running onto the road, deter predators and impress visitors.

The wood has changed shape and size over time. The southern half, now a conifer plantation was grubbed out in 1943 to make room for RAF Knettishall and the mixed deciduous woodland against the road was a disguised bomb dump. Wartime archaeology remains within the wood.

There are at least seven deciduous tree species found within the wood, reflecting its former plantation nature alongside a few specimen conifers. There are grassy rides, areas of bramble and nettle and areas of mixed shrubs and herbs.

– *Fen Street Parish Pit*

Approximately 0.5ha this small piece of woodland was recorded as a gravel pit for road maintenance in 1885 and was one of a number of gravel extraction pits used for the construction of Knettishall airfield. Early aerial photographs show that it was completely denuded of trees at that time. This pit is a small piece of Common land owned by the parish council.

Today, it is dominated by oak trees with some ash and has an understorey of elder, blackthorn and hawthorn with an elm dominated hedge leading to the wood along the road edge. The understorey is bramble, nettle and bracken providing thick cover for mammals.

– *Knettishall Hill Pit*

Approximately 1.0ha this is another area of woodland that has grown since used for gravel and sand extraction in 1943.

The woodland has grown in the steep sided pit. Oak dominates with mature ash, silver birch and occasional beech trees. There are remnant elms along the boundary to the Fen Street gardens with hawthorn, blackthorn, and holly forming the shrub layer. There is a sparse herb lay over the southern side of the woodland, which has a steep sandy bank, excavated by rabbits that graze the arable land around the woodland extensively. On the exposed sand there are *Dryopteris* fern, climbing cordyalis, lords and ladies, and nettle. On the northern edge, near Knettishall Hill there is a thick bramble understorey.

Part of the Dairy Farm tenancy this is known as the Sand Pit, with the fields next to it called the Sand Pit Field and 11 acres. This area of woodland is the home of a healthy Rookery.

– *Raydon Plantation*

Raydon Plantation (1.73ha) is an area of Silver Birch dominated woodland on a sandy bank against the edge of the Little Ouse to the South East of Common Road. It is shown on the 1886, one inch OS maps as a small wooded area within Hopton Common, a name given within the parish, to most of the land bordering the river.

A silver birch woodland near the Little Ouse, this is slowly succeeding into oak woodland on the arable edge. There are also ash and holly trees with a fragmented understory of bramble, bracken and nettle. A lot of fallen timber within the woodland provides an ideal environment for saprophytic species. Beech trees and hawthorn grow alongside the road edge.

– *Dairy Farm Common*

Currently shown as 0.469ha, this L shaped area of woodland was originally two separate ancient oak woods that saw some replanting after the 1987 gales. In the early 1990s planting with mixed tree species took place on the arable land linking the two fragments. It is hoped that a survey can be carried out in spring 2021 to ascertain whether any ancient woodland indicator species are present.

*Threats to this habitat*

- Excessive deer browsing leading to change in woodland structure, impoverishment of ground flora and low rates of natural regeneration and growth.
- Poor management and neglect e.g. invasion by non-native tree and shrub species leading to changes in woodland structure
- Disease e.g. Chalara Ash Dieback, Acute Oak Decline, Dutch Elm Disease.
- Removal of dead wood, decaying wood habitat destroys the food source for stag beetle larvae and other saproxylic insects.
- Changes in agricultural practice e.g. cultivation hard up to woodland boundaries.

*Fig. 19: Knettishall Hill Pit (Sand Pit) viewed from the arable stubble. August 2020*



*Showing the high sand bank remaining from gravel extraction. A favourite site for rabbits.  
Source: Photo by Andrea Hanks, 2020*

## ***F. Open Mosaic Habitats***

### *General description of this Priority Habitat in Suffolk*

An area of open mosaic habitat must be at least 0.25ha in size with a known history of disturbance at the site, or evidence that soil has been removed or severely modified by previous use of the site. The site will contain some vegetation that will comprise early successional communities, consisting mainly of stress-tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of: annuals; mosses/liverworts; lichens; ruderals; inundation species; open grassland; flower-rich grassland; or heathland. These habitats also often have un-vegetated, loose bare substrate, and pools may be present. Within the site, spatial variation can be seen. This forms a mosaic of one or more of the early successional communities listed above, in addition to bare substrate.

### *Open Mosaic Habitat in Hopton*

One of the most exciting areas to visit during the summer is the remnants of the RAF Knettishall to the extreme west of the parish. The airfield was closed in 1957 and the land sold back to farms. Through the parish runs a section of the circular concrete perimeter track. The strip of pine plantation that runs from the south west to the track was the line of the main runway and from the track there are remnant concrete spurs going into the Walled Covert and across the farmland. Within the arable fields you have buried concrete bunkers and, in neighbouring parishes, old buildings.



*Fig. 20: Aerial photograph of Knettishall airfield looking south, the bomb dump is bottom left, 13 March 1944.*

*Source: 7th Photographic Reconnaissance Group, sortie number US/7PH/GP/LOC226. English Heritage (USAAF Photography). Imperial War Museum records*

Broom covert is the wooded area, central and to the west of the photograph. Walled covert is the bomb dump in the bottom left hand corner.

This is an unusual habitat to find in a rural setting and is usually found on urban brownfield sites or along old railway routes. Creating the mosaic effect, you have areas of compact ground in and around the concrete track, broken and missing sections, dry ditches, grassy acid-heath field margins, small shrubby hedges and successional heathland with pine woodland margins.

In order to build the airfield sand and gravel was extracted from pits behind Fen street and, although most have now been filled, the remaining deep pit immediately behind the street shows the extent of this extraction.

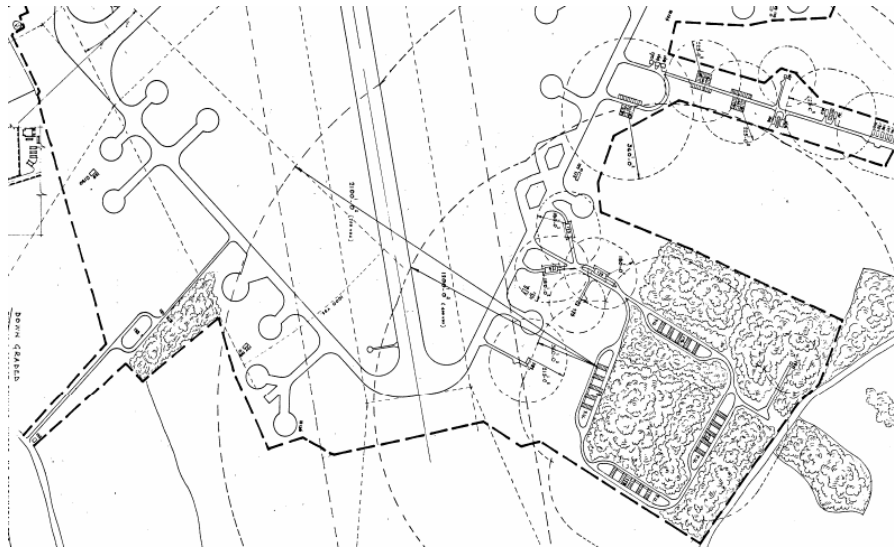


Fig. 21: Proposed layout for RAF Knettishall, 1943  
Source: [www.americanairmuseum.com](http://www.americanairmuseum.com) .(IWM)

- Walled Covert at right of image.
- Broom Covert and Fen Street at left of image.
- Remnants of perimeter track now forming a mosaic habitat.
- Permissive access along track
- Central section is main runway, now pine woodland.

In this area of mosaic habitat you find mosses, lichens and sedums, Breckland heath flora, such as viper's bugloss and plants indicative of waste and disturbed ground. The invertebrate fauna is often rich on such sites and there is a completely different ecosystem associated with the pine woodland than any found elsewhere in the parish. A new hedge line was planted along one section of the perimeter track spring 2020.

## G. Ponds

*General description of this priority habitat in the context of Suffolk*

Ponds, for the purpose of UK BAP priority habitat classification, are defined as permanent and seasonal standing water bodies up to 2ha 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

Other important ponds: Individual ponds or groups of ponds with a limited geographic distribution recognised as important because of their age, rarity of type or landscape context (e.g. pingos) It has been suggested that the ponds on Market Weston Fen are pingos.

### *Ponds in Hopton*

Hopton is rich in wetland habitats but, unlike parishes to the south and east which are on clay soils does not have many farm ponds although there are a number in individual gardens.

Reference to Google earth imaging and OS maps show the presence of seasonal or temporary ponds on farmland moving away from the wet valley.

To the west these are thought to be Marl pits, some of which were still water filled in July despite the dry spring of 2020. There are also depressions within the farmland that can be seen from satellite imaging. These too are old Marl pits slowly being integrated to the general topography through ploughing.

Marl is a glacial deposit of chalky clay which was excavated for building work in some parts of the country, or, as is more likely in Breckland, to be integrated into the surrounding land as a soil improver. When left derelict they would appear as small shrub filled pits in the landscape. Sometimes, if the remaining thin clay layer is intact, they would fill with water and form ponds.

To the east of common road there are some scattered ponds supporting reed communities and along the Angles way from Bugshole fen in Thelnetham there is a stream fed pond that appears to support a rich aquatic plant life.

### *Garden Ponds*

Garden ponds are also of huge conservation value within the parish. The dragonfly list at the end of this report has been compiled by Sue Delve who has a small garden pond along Fen Street. She has had a number of different species emerge in 2020, some of which have only recently been recorded in the parish. Such ponds are both a lifeline and a back-up water body for aquatic animals, especially as we experience the effects of climate change causing erratic weather patterns with extreme heat during the summer months. In 2019, the ponds on Market Weston Fen were nearly all reduced to damp mud patches which would have had a devastating effect on the invertebrate populations. Dragonflies live in one pond for up to 7 years in their larval form.

Once a very common species within the parish, toads are now rarely observed in Hopton. A contributing factor in their decline is a fungal infection that has spread through the UK population. However, the common frog is still frequently seen, and ponds are a survival lifeline for these amphibians. It may be that the network of garden ponds (fish free) will help them survive. There are records of smooth newts within garden ponds in the parish and great crested newts are known to be in neighbouring parishes.

Historically there was a pond along common road which flowed out across the street. This was restored in 2019. By summer 2020 the banks have been colonised by ruderal species and there is undoubtedly already a developing invertebrate fauna.

### *Activities and developments that could affect the pond priority habitat*

Ponds are dynamic systems that are both lost and created over time. However, pond loss or degradation can lead to a reduced diversity of wildlife. Examples of factors that could affect ponds are:

- Pollution from nutrients or other chemicals
- Succession/lack of management
- Infilling due to development or loss of economic value.
- The introduction of non-native plants and animals including fish. In recent years there has been a campaign to ban the sale of a number of non-native aquatic plants which are seriously threatening the biodiversity of our wetland ecosystems. In particular, New Zealand pigmy weed which has been found countywide on many wetland sites. Carried on the feet of birds and in the tread of tyres of boots, this plant can regenerate from only a 5mm piece. The plant grows rapidly and out competes native plants, thus destroying the pond ecosystem.
- A rise in temperature will produce wide ranging effects e.g. acceleration of plant growth.

An in-depth survey of the parish's pond flora and fauna would greatly increase our understanding of parish biodiversity and would be a useful future project.



*Fig. 22: Deep marl pit at the top of Knettishall Hill. Water present most of the year, even during hot drought conditions.*

*Source: Photo by Andrea Hanks, 2020*

## **H. Rivers**

### *General description of rivers and streams as a priority habitat in Suffolk*

This habitat type encompasses all near natural and natural water in the County. The geology, topography, substrate, gradient, flow, channel profile and catchment all influence the ecology, in addition to human activity. To qualify as a priority habitat the river or stream must: be natural or near natural and of high ecological value; a headwater; recognised as a special area of conservation as a river; a chalk river, a shingle river, a designated SSSI for the river, or contain priority species from the Biodiversity Action Plan.

### *Rivers as a priority habitat in Hopton*

Hopton is bordered by the Little Ouse river and is fed by Hopton Brook which runs through the fens and wet woodlands in the parish.

#### *- The Little Ouse*

The Little Ouse starts at Redgrave and flows west through, Hinderclay, Blo Norton, Thelnetham and Hopton to eventually join the Great Ouse (37miles). It forms the parish boundary for Hopton to the North.

Many of the sites along its banks between Redgrave and Hopton are now managed by the Little Ouse Headwaters project who recognise the value of the wet meadows and heathland habitats close to the riverbanks. A number of these sites include SSSIs of international importance. Across the border from Hopton is Scarfe's meadow. Now in the ownership and management of the LOHP.

In 2016 the Environment Agency assessed the water quality for the Little Ouse from Thelnetham, through Hopton Common to Sapiston (10.8 miles) and declared that the chemical status of the water was good and the ecological status moderate. Upstream of Thelnetham the ecological status has been targeted for improvement.

Near the Common Road bridge, the banks of the river are wooded with both standing and fallen dead timber. Further to the east they are more open and grassier, with tall Alder trees.

As the river flows through Hopton Common to the east, the channel is deeper with grass and herb rich banks

#### *- Hopton Brook*

Hopton brook flows from Barningham, along the Coney Weston, Market Weston, Hopton boundary and through the valley, around the edge of Hopton Fen to the Little Ouse. It takes in two SSSIs and a SAC site along its course. The Brook receives the outfall from the Coney Weston Anglian Water sewage works. Clean, high quality water that means the levels of the stream as it flows through Hopton rarely fall desperately low.

In places Hopton Brook is wide, silty and rich in plant species. For a lot of its length it has been periodically cleared to improve field drainage, as have some of the dykes feeding into it. Otters have been observed using the brook as a corridor and it has for many years supported Kingfishers who also visit garden ponds in the area. Water vole have also been recorded along the banks of the brook as it flows through Weston Fen.

Where the brook is allowed to assume its natural course, near the AW pumping station it is wide and slow moving, supporting greater reed mace with banks of great willow herb and hemp agrimony. A Little Egret is often observed here. In slow flowing sections lesser water parsnip grows and there is water mint and meadow sweet along the banks.



*Fig. 23: Hopton Brook*  
*Source: Photo by Andrea Hanks, 2020*

Although drains do not technically come into this category. Mention should also be made of some of the drains feeding into Hopton Brook which support a wide variety of aquatic herbs. In particular, the drain across the meadow belonging to Mr and Mrs Bull. This drains Fen Street to the Brook and was originally an open drain for its entire length. Building on the flood plain side of the Street in the 1960s saw this drain being piped. Remedial work on the drainage system in 2019 led to the remaining short, open section being dredged and new pipe work feeding in to it. In Summer 2020 there was a fantastic wetland community developing which included water plantain and purple loosestrife. Both indicators of high water quality. Other feeder drains were dredged in Winter/Spring of this year and it will be of interest to see how vegetation develops on their banks.

### ***I. Wet Woodlands***

#### *General description of wet woodlands as a priority habitat in Suffolk*

Wet woodlands occur on land that has waterlogged or seasonally waterlogged soils, where the water level is high, and drainage is poor. They are typically associated with flood plains and river valleys. Within Suffolk, the Little Ouse valley is considered a stronghold for this woodland type.

Typical tree species are grey willow, alder and downy birch (often mistaken for silver birch). These areas are very important for mammals such as the otter, pipistrelle and barbastrelle bats, flycatchers, song thrush and many unusual invertebrates.

The mosaic of habitats provides diverse conditions which support a wide range of plants, invertebrates, birds and mammals. Wet woodland provides cover for birds such as marsh tit and willow tit, siskin, redpoll and song thrush. Bat, otter and water shrew may also be found in this type of habitat. The most common plants are (grey/goat) willow, alder, (ash), common reed, birch (downy), greater tussock sedge and common nettle. The high humidity and presence of damp bark supports a range of mosses and liverworts. The wet conditions favour plants such as hemp agrimony, rushes and sedges. Additionally, an extremely large number of invertebrates are associated with alder, birch and willow.

### *Wet Woodland in Hopton*

In Hopton the woodland on the edges of both fens are valuable areas of wet woodland as is the poplar plantation to the North West edge of the parish where mature poplar trees grow within an old dyke system. (n.b. The woodland on the edge of Hopton Fen is included in the Fen classification) There are two other pockets of woodland which might also meet this habitat description, to the north of the parish, both against the Little Ouse river and with a dyke network.

#### *- Poplar plantation*

An extensive area of wet woodland along the edge of the Little Ouse river to the west of the parish. This, and the conifer plantations to the south, are shown as Hopton Common on Hodskinson's 1783 map. The conifers were planted on higher, sandy soils. and in the 1836 one inch Ordnance Survey are shown as mixed plantations known as Wilderness Covert and Burnt Alders.

Even on early 19<sup>th</sup> century maps it can be seen that the area now forming the wet woodland of the Poplar Plantation was divided up by a series of drains. Until the early 1970s this was an area of wet grassland that provided summer grazing for Dairy Farm.

Planting of poplars was probably part of development of agroforestry practice that happened in Britain during the 1960s and 70s. Today, the standing poplars and drains provide a wealth of microhabitats for wetland species. The standing timber is used by bats for roosts and the insect fauna living in the vegetation of the drain network provides them with food. Many of the poplar trees have fallen following high winds and, this too has created an even greater range of microhabitats.

In July 2019 an application for a felling licence for this area was made by Lodge farm for the felling of 10,000 mixed deciduous trees with a view to be replanted with cricket bat willows. Application status unknown.

#### *- Boardwalk woodland and SWT wet carr*

The term carr refers to fen woodland or scrub that is dominated by alder or willow. Aerial photographs from the 1940s and maps from the early part of the last century show that there was considerably less tree cover along the course of Hopton brook as it flows from Weston fen. A block of wet woodland existed at the end of the current boardwalk and there was scrub woodland to the left as you moved towards this block. Standing on Fen street and looking to the right there was a completely open vista across the reed and sedge beds of Weston fen. This means that most of this wet woodland is less than 80 years old and would have developed as the need for fen product declined post war. This area is SSSI, having been designated in 1958 under the 1949 Act and then re-notified in 1986 under the 1981 act.

Until recently the woodland to the south west of the boardwalk was privately owned and did not form part of the Market Weston fen reserve. Plans for this area include

the possible removal of ash trees, badly hit by Chalera die back, to create open glades for wetland species to thrive. The whole area is floristically rich with a wealth of sedges and rushes mixed in with phragmites reeds. The dykes support yellow flag, hemp agrimony and marsh marigold. Hopton brook is full of lesser water parsnip and this is a good site to see the speckled wood butterfly and banded demoiselle dragonfly.

#### *Some of the factors affecting Wet Woodland habitat*

- Failure to maintain open fen/wet grassland, allowing increasing areas of wet woodland to develop.
- Loss of this habitat through restoration to other land use
- Drier woodland developing due to changing weather patterns and changes in water levels
- Poor management leading to changes in the structure and flora of the woodlands
- Colonisation by non-native species

#### **J. Built Environment and Associated Habitats**

##### *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, gardens, allotments and waste land. These built up areas, gardens and spaces can provide a wide range of semi natural habitats with a significant biodiversity value.

Buildings can mimic natural cliff faces and gardens the equivalent to woods, scrub, hedgerow, species rich meadows, ponds and streams. All provide opportunities and in some cases refuges for a wide range of species to complete their life cycle.

##### *Built environment in Hopton*

The general description underlines the importance of the built environment to wildlife in the parish and aerial photographs show how the houses and gardens are linked from the central populated area centred on the crossroads down to Fen Street.

Within the built environment of Hopton the following have been observed:

- Mammals: long eared and common pipistrelle bats, hedgehogs, common shrew, field voles house mice, wood mice, grey squirrel, brown rat, mole, muntjac deer
- Birds: house sparrows, starlings, bullfinch, song thrush, dunnock, cuckoo, linnet, yellowhammer. swifts, swallows and house martens, tawny owl, kestrel. These include many species from the Suffolk Priority and Birds of Conservation Concern list
- Reptiles: grass snake, common lizard
- Amphibian: common frog, smooth newt. Toads were not seen in 2020

Sympathetic gardens are also the sites for feeding and breeding butterflies, dragonflies and damselflies, moths, solitary bees, bumble bees, hoverflies and many beetles, bugs and spiders.

The following section of this report by Hopton resident, Sue Delve, evaluates the bees and dragonflies observed in and around her garden. This demonstrates the value in managing gardens for wildlife.

*Activities that could enhance gardens as part of the built environment further:*

- Creation of garden ponds
- Creation of wildflower meadows or allowing small areas to remain uncut until high summer.
- Planting 'bee-friendly' flowers
- Harvesting rainwater
- Avoiding or reducing the use of garden chemicals
- Composting and developing deadwood areas



*Fig. 24: Bee orchid, June 2020, Nethergate Street garden.*

*Source: Andrea Hanks 2020*

### 3.4 Bees and Dragonflies in a Garden in Hopton

One garden, of about 0.5 acre in size, on Fen Street on the outskirts of Hopton village is managed as a traditional cottage garden, with vegetable garden, wildflower meadow and gravel garden plantings. It also has a small, formal pond. The resident, a trained ecologist and long-term naturalist and wildlife holiday leader, has been keeping casual records of certain taxa within the garden over the last four years. Flowers and other plants chosen are done so to enhance the numbers and varieties of insects and other wildlife where possible. The garden is managed fairly intensively, although insecticides and other pesticides are never used and there are wild 'set aside' areas. It is positioned alongside another garden on one side, and fields on the other. Its proximity to SWT's Market Weston Fen is undoubtedly a factor in the richness of insect species recorded.



Fig. 25: Male *Bombus pascuorum*, Common Carder Bumblebee  
Source: Sue Delve, 2020



Fig. 26: Male *Libellula depressa*, Broad-bodied Chaser  
Source: Sue Delve, 2020

#### A. Bees

There are currently 275 British and Irish species of bee recorded in the country. Many of these are extremely rare or range restricted, with many not occurring in Suffolk, and many others with only historic records from the county. Members of several large groups, such as *Nomada* and *Sphecodes* (nomad bees and blood bees), can only be specifically identified by capturing, pinning and dissection of genitalia. Consequently, this list can only illustrate a small proportion of the species actually present, and species that can be identified by direct observation or examination of suitable photographs have been included. For many of the difficult species, however, identification has been confirmed by experts Matt Smith, Stephen Boulton and Karen McCartney and all records have been submitted to iRecord (BWARS – Bee, Wasp and Ant Recording Scheme).

It is likely that many species remain unrecorded, even a modest prediction highlights another 40 potential species on distribution and habitat. Many of the more common species have not previously been recorded from the area around the village of Hopton, and especially notable records have been highlighted on the table of records included in this section.






*Fig. 27: Female Andrena fulva, Tawny Mining Bee*






*Source: Sue Delve, 2020*










*Fig. 28: Distinctive leafcutting scars in Rosa leaves of Megachile centuncularis, Patchwork Leafcutter Bee*




*Source: Sue Delve, 2020*

	English Name	Genus	Species	Frequency	Status
1	 Ivy Bee	<i>Colletes</i>	<i>hederae</i>	Common on Ivy in autumn. Several colonies in banks along Fen Street	Recent colonist. Initial records in area came from garden. Now common.
2	Davies' Colletes	<i>C.</i>	<i>daviesanus</i>	A couple of records, mid-summer	Scarce, hard to ID
3	 Common Yellow-faced Bee	<i>Hylaeus</i>	<i>communis</i>	Occasional	Widespread
4	 Gwynne's Mining Bee	<i>Andrena</i>	<i>bicolor</i>	Very common, large colony in flowerbeds	Outside known range.
5	Large Gorse Mining Bee	<i>A.</i>	<i>bimaculata</i>	Rare visitor	Local. Probably visiting from fen.
6	Hawthorn Mining Bee	<i>A.</i>	<i>chrysoseles</i>	Rare visitor	Locally common.
7	Tawny Mining Bee	<i>A.</i>	<i>fulva</i>	Occasional	Frequent. Probably our most recognisable wild bee.
8	Orange-tailed Mining Bee	<i>A.</i>	<i>haemorrhoea</i>	Common in late spring	Frequent.

9		A.	<i>nigroaenea</i>	Occasional	Common.
10		A.	<i>nitida</i>	Common, nesting in lawn	Common in southern Britain.
11		A.	<i>praecox</i>	Occasional	Very local. Probably visiting from fen.
12		A.	<i>scotica</i>	Occasional, probably breeding	Common.
13		<i>Anthidium</i>	<i>manicatum</i>	Common on Bunny Ear's in garden, June.	Frequent but scattered.

14	 Large-headed Resin Bee	<i>Heriades</i>	<i>truncorum</i>	Common, large colony nesting in bee hotel later in the summer.	Outside known range. First recorded in Suffolk 20 years ago.
15	Small Scissor Bee	<i>Chelostoma</i>	<i>campanularum</i>	Common on Nettle-leaved Bellflower	Widespread but very localised. Needs Campanula flowers.
16	 Red Mason Bee	<i>Osmia</i>	<i>bicornis</i>	Very common nesting in bee hotels	Common and widespread.
17	Patchwork Leafcutter Bee	<i>Megachile</i>	<i>centuncularis</i>	Occasional. Holes in rose leaves distinctive.	Widespread but patchy distribution.
18	Willughby's Leafcutter Bee	<i>M.</i>	<i>willughbiella</i>	Occasional, but nesting in bee hotel in small numbers.	Locally common.
19	 Yellow-shouldered Nomad Bee	<i>Nomada</i>	<i>ferruginata</i>	Rare visitor	Rare. Last Suffolk record 2014.
20	Flavous/Panzer's Nomad Bee	<i>N.</i>	<i>flava/panzeri</i>	Occasional	Common Nomad bees but very difficult to separate without dissection.

21		<i>N.</i>	<i>marshamella</i>	Most frequent nomad bee in the garden	Common. (Illustration also shows <i>Andrena haemorrhoa</i> )
22		<i>Anthophora</i>	<i>plumipes</i>	Early, common, large number nesting in flower beds and walls. Loves Pulmonaria.	Common in southern England.
23		<i>Melecta</i>	<i>albifrons</i>	Rare. Excellent record.	Scarce and outside known range.
24	Garden Bumblebee	<i>Bombus</i>	<i>hortorum</i>	Common	Very common.
25		<i>B.</i>	<i>hypnorum</i>	Common, nesting in house and garden.	Recent colonist (2001), now very common.

					
26	Red-tailed Bumblebee	<i>B.</i>	<i>lapidarius</i>	Common, nesting in garden.	Very common.
27	Common Carder Bee	<i>B.</i>	<i>pascuorum</i>	Common, nesting in garden.	Very common.
					
28	Early Bumblebee	<i>B.</i>	<i>pratorum</i>	Common, nesting in garden.	Very common.
29	Buff-tailed Bumblebee	<i>B.</i>	<i>terrestris</i>	Common, nesting in house and garden.	Very common.
					
30	Vestal Cuckoo Bee	<i>B.</i>	<i>vestalis</i>	Scarce. Cuckoo bee in Buff-tailed Bumblebee nests in house/garden.	Widespread but scattered.
31	Honey Bee	<i>Apis</i>	<i>mellifera</i>	Common, hives next door.	Non-native.

*IDs verified by Stephen Moulton, Matt Smith, Karen McCartney  
All photos by Sue Delve, 2020*

### **B. Dragonflies and Damselflies**

Dragonflies are a somewhat easier group to identify, and there are far fewer species to contend with. The garden contains a small, formal, stone-built raised pond that originally had fish in it, but for the last three years has been fish-less and given over to wildlife. It contains good numbers of leeches, diving beetles, including *Dytiscus marginalis* (Great Diving Beetle), *Acilius sulcatus* (Lesser Diving Beetle) and *Gyrinus* sp. (Whirligig Beetles). Every year, *Lampyrus noctiluca* (Glow Worms) are recorded around the pond and bog planted areas. Smooth Newts and Frogs are also both resident.

Some of the larger dragonflies, and a few of the damselflies, are visitors to the garden. This may not be affected by the presence of the pond, although a surprising range of species have been proven to breed in the pond. Larvae are frequently observed and exuviae – the larval skin that is left when the adult dragonfly leaves the water and hatches – can be identified to species confirming those that have bred in the pond. For these records, only species that have been proven to breed in the pond are included as a positive breeding record. It is possible that a couple of additional species have done so.



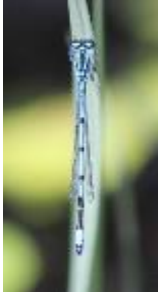





*Fig. 29: Exuvia of Anax imperator - Emperor Dragonfly (ABOVE)*





*Fig. 30: Female Anax imperator – Emperor Dragonfly laying eggs in the pond (RIGHT)*

*Source: Sue Delve, 2020*



	English Name	Genus	Species	Breed?	Frequency	Status
1	 Banded Demoiselle	Calopteryx	splendens	N	Frequent - probably visiting from fen	Common on slow moving water
2	Common Emerald	Lestes	sponsa	N	Frequent - probably visiting from fen	Very common on rushy pools
3	Scarce Emerald	L.	dryas	N	Two records	Visitor from fen where it is a recent colonist
4	 Large Red Damselfly	Pyrrhosoma	nymphula	Y	Very common, always the first species in spring	Very common.
5	 Azure Damselfly	Coenagrion	puella	Y	Very common	Very common
6	Variable Damselfly	C.	pulchellum	?	Occasional	Scarce, but breeds at fen. May breed in garden.

7	Common Blue Damselfly	Enallagma	cyathigerum	Y	Common, but not as frequent as Azure	Very common
8	Blue-tailed Damselfly	Ischnura	elegans	Y	Frequent	Common
9	Hairy Dragonfly	Brachytron	pratense	N?	Occasional, hunting through garden	Early season, reasonably common.
10	 Migrant Hawker	Aeshna	mixta	?	Frequent in latter part of season	Very common, highly migrant.
11	 Southern Hawker	A.	cyanea	Y	Rare - only seen adult once but several exuviae found	Reasonably common, highly mobile.
12	Brown Hawker	A.	grandis	N	Occasional - probably visiting from fen	Common. Highly mobile.
13	Norfolk Hawker	A.	isosceles	N	Very unexpected visitor in 2019	Rare and local, although increasing.
14	 Emperor	Anax	imperator	Y!	Was occasional until 2020 when more than 40 hatched from the pond.	Frequent in southern Britain. Highly mobile.

						
15	Four-spotted Chaser	Libellula	quadrimaculata	Y	Common	Early hatching, often territorial around pond.
16	Broad-bodied Chaser	L.	depressa	Y	Scarce. Bred in 2020.	Common.
						
17	Black-tailed Skimmer	Orthetrum	cancellatum	N	Occasional, hunting through garden	Fairly common.
						
18	Common Darter	Sympetrum	striolatum	Y	Common in late summer	Very common.
						
19	Ruddy Darter	S.	sanguineum	Y	Rare, until it hatched in 2019.	Reasonably common.

*IDs verified by Adrian Parr and Pam Taylor from British Dragonfly Society.  
All photos by Sue Delve, 2020*

### 3.5 Ecological Networks and Connectivity

As part of their efforts to tackle the on-going biodiversity decline in England, the Government instituted reforms to the planning system which seek to embed ecological sustainability into the strategic planning and development processes.

In the UK, biodiversity has largely declined due to habitat loss. Not only has the total habitat area been reduced but there is increasing fragmentation of the habitats remaining such as remnant woodland or tiny pockets of damp meadow.

The National Planning Policy Framework, mandates local planning authorities to plan strategically for nature, identifying and mapping ecological networks in order to deliver the protection, enhancement and maintenance of biodiversity.

Ecological networks are the basic joined-up infrastructure of habitats, both existing and future. This network is needed for populations of species and habitats to survive in fluctuating conditions. A landscape that allows species to move easily allows re-colonisation of areas after disturbance events and prevents local extinction. An ecological network is a combination of important, or core habitats and the landscape features that connect them. If an area has good connectivity organisms can move through the landscape for a variety of reasons at different scales.

In the long term as our climate begins to change, well connected habitats allow populations to move as conditions become more favourable. This maintains genetic diversity and allows these populations to adapt as their environment changes.

The National Planning Policy Framework Feb 2019 states that we must:

- Identify and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing net gains for biodiversity

#### *Components of an Ecological Network and where they are found in Hopton*

The components of an ecological network can include many different components of green infrastructure:

- Core nature area: Areas of high quality habitat that are managed primarily for biodiversity. These are areas large enough to support the population of a species. In Hopton these are represented by the coverage of the SSSIs, their woodlands and meadows and the different Priority Habitats across the parish.
- Stepping stones: Existing habitat patches providing connectivity between Core Areas and into the wider landscape. These are represented by the smaller areas of deciduous woodland, ponds and tiny fields in Hopton.
- Linear corridors connecting habitats. Within Hopton parish these are provided by the rich network of hedgerows; the stream channels of Hopton Brook and

their associated riparian margins; Shortgrove Lane, a valuable and ancient green lane that must be preserved as such; Mill Lane and other trackways; roadside verges and arable margins, where present

- Restoration areas: Areas/features/resources with the potential to become future Core Areas, or to improve connectivity, if they are enhanced or restored. An example of this would be the possible establishment of a wood on the parish dump
- Buffer zones: Zones included around all these elements to lessen the likelihood of direct or indirect impacts upon them. Areas of scrub in field corners and edges and grassland under less intensive management all lessen the likelihood of direct or indirect impacts upon core Priority Habitats within the parish

In Suffolk, an ecological networks project is being developed in order to support delivery of the Suffolk Biodiversity Action Plan. This project has developed a map of core areas in a county-wide setting and is looking at ways to improve links to these in a predominantly agricultural County.

Improving ecological networks does not have to be on a county-wide scale. It is as important to look at an individual field or wood as it is to consider a district's green infra structure.

#### *Ecological networks in Hopton*

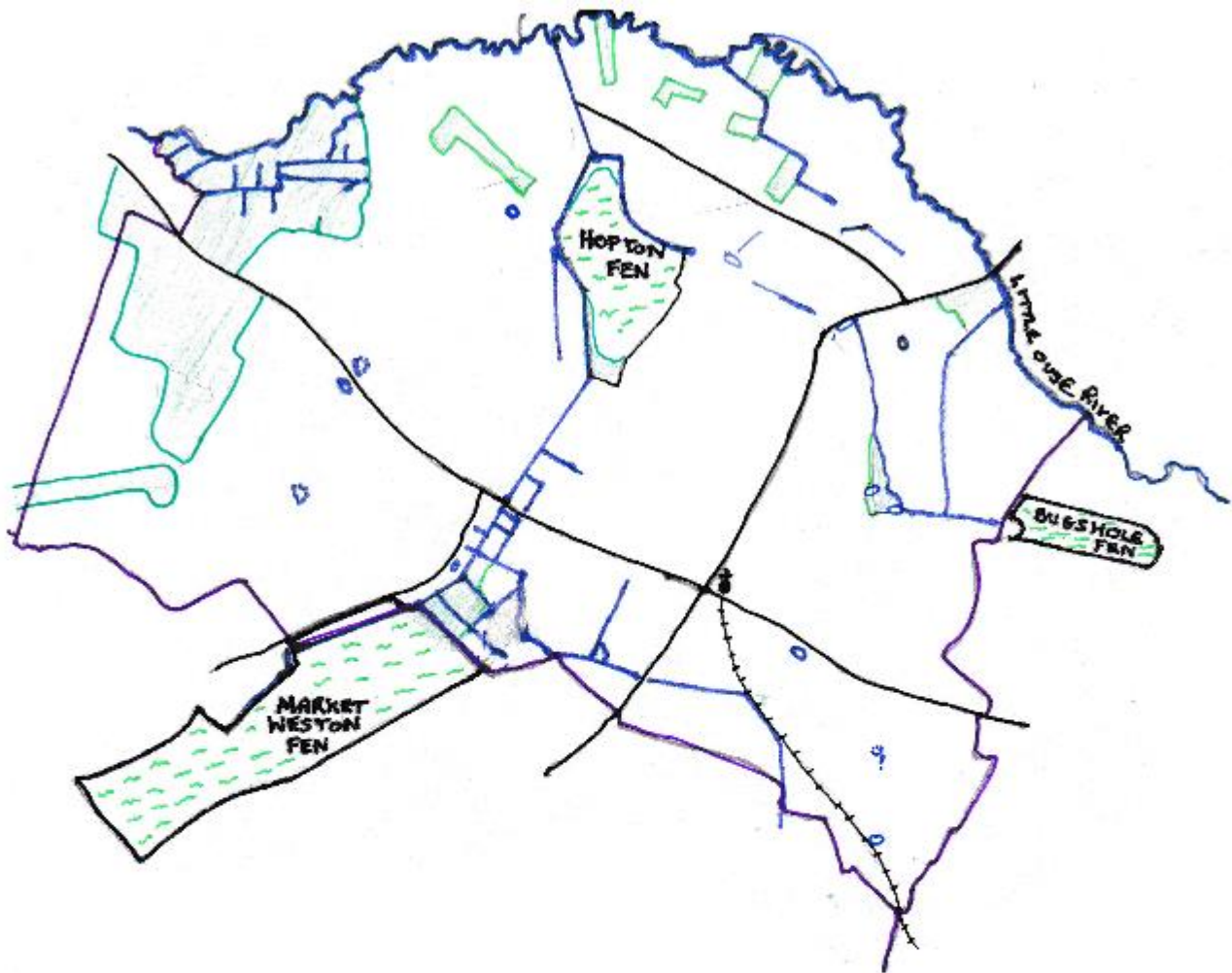
We have good ecological networks within Hopton. A network of natural, semi-natural and man-made green spaces including our gardens, riverbanks, woodlands, fens, and meadows which are interconnected by well managed hedges and a wealth of lanes and old trackways. It is important that we guard against fragmenting this and work with landowners to restore, replenish and, if necessary, replace this following development.



Key

- Parish Boundary
- Road
- Byway
- Farm Track
- ▨ Settlement (Buildings and gardens)
- Wooded areas
- Hedge line
- Remnant hedge
- ..... New hedge

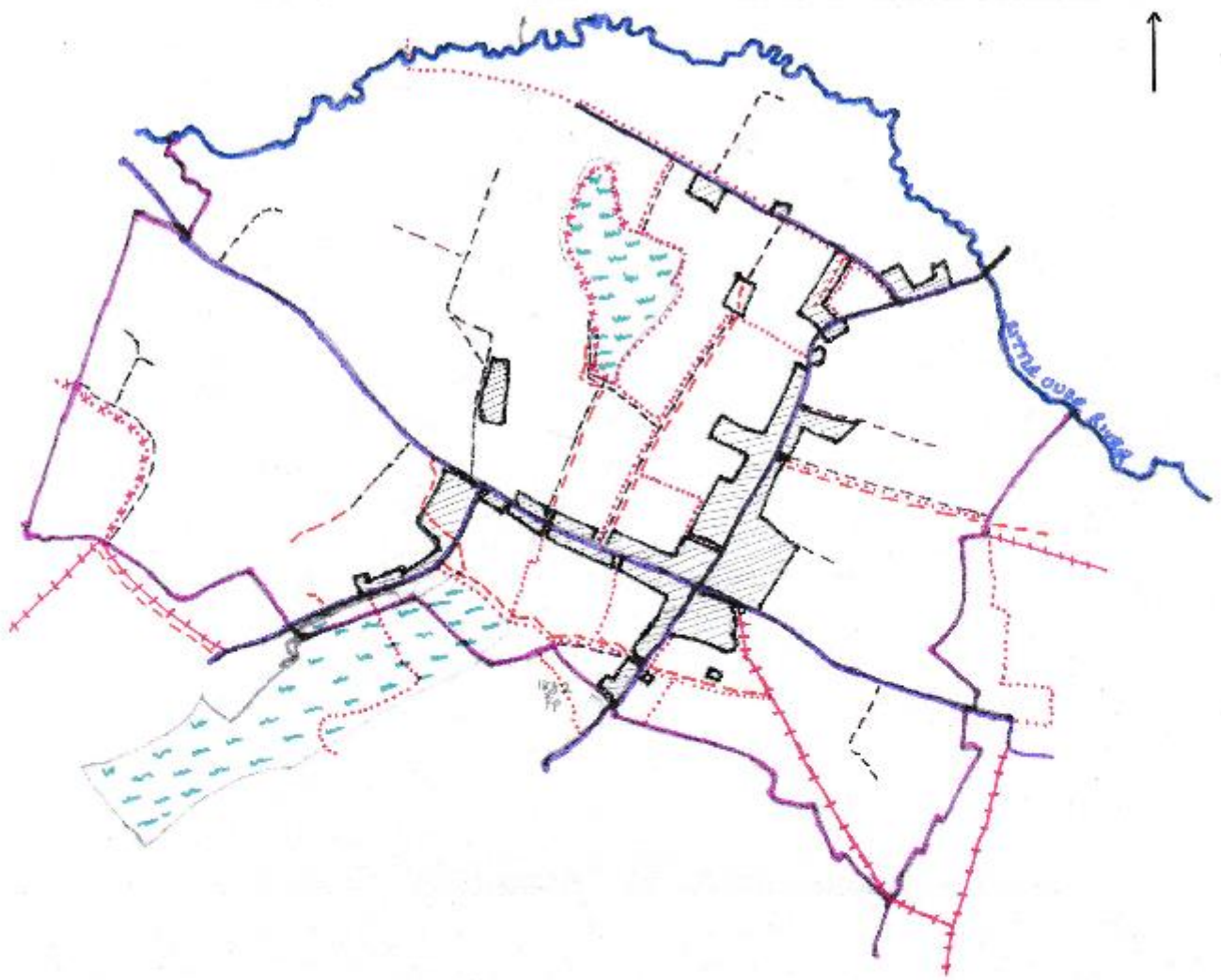
Fig. 31 Ecological Networks and Connectivity: Hedgerows and Wooded Areas  
 Source: Google Earth, annotations by Andrea Hanks



Key

- Parish Boundary
- Road
- Byway
- - - Fen
- ~ River and Drain
- Pond
- ⊛ Wet/Seasonal pond or hollow
- ◉ Wooded areas

Fig. 32: Ecological Networks and Connectivity: Rivers Drains and Ponds  
 Source: Google Earth, annotations by Andrea Hanks



**Key**

- Parish Boundary
- Road
- River
- +—+ Byway
- - - Farm Track 2020
- ..... Footpath
- ▭ Settlement (Buildings and gardens)
- ~ Fen
- x-x-x Permissive Path
- - - Historic trackway
- ..... Historic Footpath

*Fig. 33: Ecological Networks and Connectivity: Paths, Byways and Tracks, current and historic*

*Source: 1842, 1885 and current OS maps, annotations by Andrea Hanks*

### **3.6 Notes on Green Lanes, Trackways, Byways, Unmade Roads and Footpaths in Hopton**

Green lanes and old trackways are not recognised as priority habitats but are essential parts of the ecological network within the parish. Grassy verges and associated hedges provide important corridors for many invertebrates, reptiles, birds and mammals where they may freely move over long distances with little risk of being killed by fast moving vehicles.

Shortgrove Lane, in particular is an asset, to the parish. Not only is it a link to other green lanes which in turn lead to other parishes (Market Weston and Thelnetham), it is an important refuge for many plant and animal species and in summer is a good site for many native butterflies who feed on the herb rich margins and sun themselves on the open track.

Although Hopton is not considered to be a Drover's village, it undoubtedly hosted travelling flocks and herds moving from town to town. To the East were the cattle routes leading from Norwich to London via Bury St Edmunds and to the west and north were the routes taken by large flocks of sheep moving through Breckland to wool markets such as you would have at East Harling. The Chequers Pub along Fen St. once owned 5 or 6 acres of land where, anecdotally, flocks would be secured overnight whilst their drovers rested. An old trackway once ran through the pub land directly to Knettishall Road just East of Hill House. Almost opposite the pub a track then ran along the path of the current boardwalk to Greyhound Lane and the Greyhound pub and on, via Olive's Throat, to Shortgrove Lane. Old maps show that Olive's Throat was once also a substantial byway.

The 1885 one inch maps show that the access track to Hopton Fen at that time is the green lane running alongside Robsons Farm. This is now a sunken trackway with high trees on either side that is a private path, the main access route to the fen having been diverted to the Common Farm track for over 100 years.

Footpaths were established in the village for a purpose and they have been changed or diverted over time as this purpose has changed. An example of this is of a short footpath which used to lead from opposite Market Weston Fen Meadow entrance across to the old hedge line and remnant trackway. This is believed to be where a 14<sup>th</sup> century deer park was established.

Looking at the 1741 map you can see how the fields were considerably smaller than today so a network of paths and tracks would have allowed access to these small fields by the villagers.

Mill Lane, an un-tarmacked roadway is another valuable old roadway. Finished in concrete, with tall hedges on either side and broad grassy margins, it is now part of the Angles Way. It is interesting how the hedges change from mixed deciduous species to gorse dominated as the northern edge of Hopton Fen is reached. This

reflects the change in soil and the flora is distinctly that of heathland, which possibly extended along the river valley towards Gasthorp and Knettishall. In the 2012 Green Infrastructure report for St Edmundsbury one of the recommendations was that effort should be made to extent this heathland corridor along the Little Ouse river valley.

Along Mill Lane was at least one mill first shown in 1783. There is also thought to have been a medieval post mill to the right of the track from Nethergate Street to Common Farm on a field known as Mill Hill (Mill Field). A post medieval mill is also on the 1846 tithe map between Shortgrove Lane and Thelnetham Road on a field known as Mill Field Common.

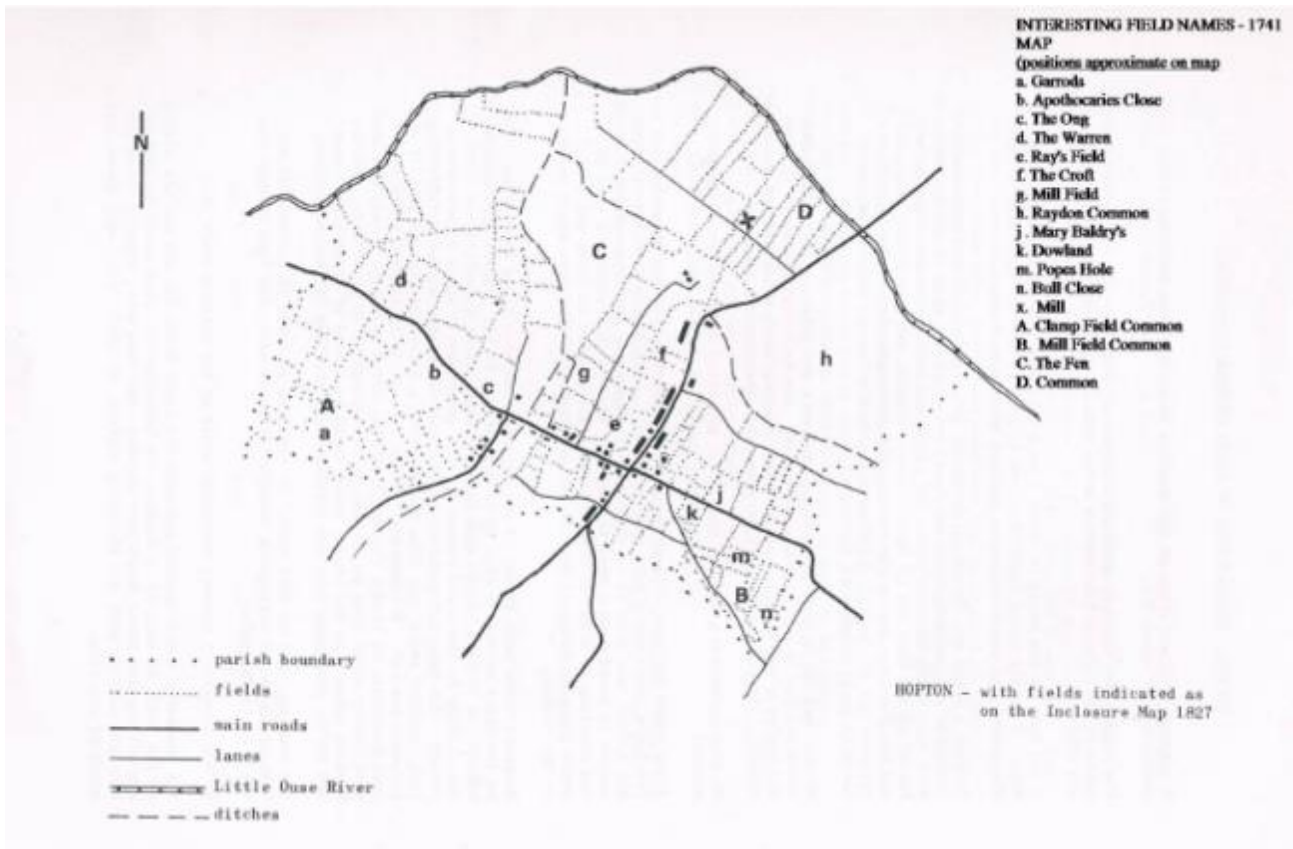


Fig 34: Copy of the 1827 Enclosure Map showing unusual field names from 1741  
 Source: Hopton Parish Council Website

## 4. Recommendations

This Landscape and Wildlife Evaluation is a dynamic document for the parish. It was put together during the first lockdown due to Covid19. It provides a snapshot of the land use and biodiversity of Hopton Parish during 2020. Hopefully, Hopton parishioners will take ownership of the document, adding to the content with historical knowledge, species identifications and records, details of land use and land management records.

Hopton is one of the greenest parishes in West Suffolk. It has a large number of footpaths, sites internationally recognised for their biodiversity, areas traditionally managed in a way to enhance species richness and a compact development area that reflects the natural resources of the parish. This is a valuable strength in a rural community and should be nurtured.

There are different ways by which we can achieve this. We can encourage more biodiversity, protect the unique qualities in the parish, and build on the work of this report by engaging with the community. It is by raising awareness of the natural assets in the parish that we can secure local support for measures to increase ecological connectivity and biodiversity, as well as helping residents and visitors to responsibly enjoy and care for the environment around them.

### 4.1 Encouraging Ecological Connectivity

- a) Restore/maintain parish hedgerows with appropriate species.
- b) Encourage the planting of native and non-invasive species in gardens, perhaps with recommendations published in the parish magazine.
- c) Liaise with local landowners and county maintenance crews to ensure the timing of verge, footpath and hedge cutting allowing native flora flowering and seed setting time.
- d) Establish some wildlife verges using local seed mixes, perhaps using a community or education event to spread seeds and monitor their growth.
- e) Review the development of small wooded areas and copses, in consultation with the Suffolk tree warden who has planted significant numbers of trees across the county and apply for grant aid from the County Council.
- f) Develop a long term plan to preserve our green lanes and trackways for future generations.

## **4.2 Maintaining Biodiversity**

- a) Ensure robust consideration of the land management guidelines for landscape characteristics and priority habitats when reviewing planning applications before Hopton Parish Council.
- b) Consider ways to ensure dead timber, standing or fallen, is left for saprophytic plants and animals, as it is often true that the most biodiverse areas are the least tidy.
- c) Support landowners in the traditional management of site, in order to maintain their value. This might include signposting to resources provided by the County Council, Wildlife Trust, or the Department for Environment, Food and Rural Affairs.

## **4.3 Involving the Parishioners**

- a) Raise awareness of local assets in the community with engagement events. This could be by running local wildlife identification and recording sessions. The parish council could also develop a community group that focuses on the biodiversity within the parish.
- b) Involve the school in the parish environmental projects, such as wildlife identification and recording, seed planting, and local history.
- c) Raise awareness of sites and encourage responsible walking/cycling/riding and dog ownership.
- d) Encourage local people to volunteer as environmental wardens for the parish

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## 5.4 Species Observed in Hopton Parish 2019/2020

### Wildflowers, trees and shrubs recorded in Hopton Parish 2019/2020

Common name	Scientific name	Notes
Bulbous buttercup	Ranunculus bulbosa	Found on well drained sites. Common in Breckland
Creeping buttercup	Ranunculus repens	Likes damp and disturbed ground like gardens
Meadow buttercup	Ranunculus acris	Damp ground like undisturbed pastures
Lesser celandine	Ranunculus ficaria	Common in damp areas/ woodland rides
Common poppy	Papaver rhoeas	Field and road edges
Greater celandine	Chelidonium majus	Two small examples near roads. Introduced in Roman times and a cure for warts
Californian poppy	Escholzia californica	Common Road verge
Common fumitory	Fumaria officinalis	Arable field edges. Likes free draining soil
Climbing cordyalis	Ceratocapnos claviculata	Two woodland sites. Unusual but other Breckland records
English Elm	Ulmus procera	Roadside hedges, suckering from old root stock.
Hop	Humulus lupulus	Nethergate and Fen Street, Both Fens and river valleys
Common nettle	Urtica dioica	Common, some examples may be Small Nettle.
Walnut	Juglans regia	Some young, self set trees from buried seeds. Mature garden specimens
Penduculate oak	Quercus robur	Found throughout
Sweet chestnut	Castanea sativa	Mature example entrance to Dairy Farm
Beech	Fagus sylvatica	Raydon Common road edge and K. Hill pit
Hornbeam	Carpinus betulus	Shortgrove Lane. Possibly planted
Hazel	Corylus avellana	Found along boardwalk.
Alder	Alnus glutinosa	Dominant tree in wet woodlands and along streams and ditches
Silver birch	Betula pendula	Likes drier, sandy soils such as Raydon Common
Downy birch	Betula pubescens	Almost indistinguishable from Silver Birch but prefers moist soils
Fat-hen	Chenopodium album	Likes disturbed ground. Once grown as a vegetable and for flour from the seed. Common
Good King Henry	C. bonus-henricus	Declining species in Suffolk. Once grown as a vegetable
Red goosefoot	C. rubrum	Found on trampled damp ground
White campion	Silene latifolia	Frequent on well drained soils
Rose Campion	Lychnis coronaria	Edge of the airfield conifer plantation
Bladder campion	S.vulgaris	Well drained soils and grassy habitats
Ragged-robin	Lychnis flos-cuculi	Hopton Fen and damp meadows

Common chickweed	<i>Stellaria media</i>	Common where the soil has been disturbed
Greater stitchwort	<i>Stellaria holostea</i>	Found in hedgerows and along old trackways.
Lesser stitchwort	<i>Stellaria graminea</i>	Found in damp grassland, hedges and woodland paths
Wood stitchwort	<i>S. nemorum</i>	Hopton Fen and damp meadows
Common mouse ear	<i>Cerastium fontanum</i>	Plant found in a wide range of habitats
Sticky mouse ear	<i>C. glomeratum</i>	Drier parts of Donkey meadow; likes disturbed ground
Field mouse ear	<i>C. arvense</i>	Common in Breckland. One record on spoil heap from ditch clearance
Sand spurrey	<i>Spergula rubra</i>	Concrete track of airfield
Corn spurrey	<i>S. arvensis</i>	Field margins east of parish. Breckland Amber species. Declining
Procumbent pearlwort	<i>S. procumbens</i>	Concrete track of airfield
Broad leaved dock	<i>Rumex obtusifolius</i>	Common along drain edges
Curled dock	<i>R. crispus</i>	Common on open disturbed ground
Wood dock	<i>R. sanguineus</i>	Damp, shady places: Olive's Throat and Fen edges
Common sorrel	<i>R. acetosa</i>	Found on slightly damp undisturbed grassland
Sheeps sorrel	<i>R. acetosella</i>	Common on very dry heath sites
Knotgrass	<i>Polygonum aviculare</i> agg	3 separate species. Found on arable land and trackways
Redshanks	<i>Persicaria maculosa</i>	Found on disturbed soils of grazed meadow.
Perforate St. John's wort	<i>Hypericum perforatum</i>	Occasional in hedge/ditch banks
Square stemmed St John's wort	<i>H. tetrapterum</i>	Found on damp sites; Hopton Fen
Lime	<i>Tilia x</i>	Planted edge of old track
Common mallow	<i>Malva sylvestris</i>	Very Common. Likes lighter, disturbed soil
Tree mallow	<i>Lavatera arborea</i>	One specimen old airfield
Hollyhock	<i>Alcea rosea</i>	Mill Lane field near garden waste
Common dog violet	<i>Viola riviniana</i>	Fen Street hedge and meadows.
Early dog violet	<i>V. reichenbachiana</i>	Found to west along old hedge
Wild pansy	<i>V. tricolor</i>	Arable edges. Likes light soils. Declining
White bryony	<i>Bryonia dioica</i>	Common rambling through hedges
White willow	<i>Salix alba</i>	Found on hedges of Hopton Brook and ditches
Goat willow	<i>S. caprea</i>	Many examples
Crack willow	<i>S. fragilis</i>	Tree of damp soils
Grey willow	<i>S. cinerea</i>	Fen carr
Rape	<i>Brassica napus</i>	Roadside verge
Charlock	<i>Sinapis arvensis</i>	Frequent on arable
Winter cress	<i>Barbarea vulgaris</i>	Found in disturbed ditch spoil
Treacle mustard	<i>Erysimum cheiranthoides</i>	Arable field margins
Hedge mustard	<i>Sisymbrium officinale</i>	Very common. Edible leaves and seeds
Honesty	<i>Lunaria annua</i>	Hedges and verges. Garden escape from medieval times

Cuckoo flower	<i>Cardamine pratensis</i>	Damp meadows and Fens
Hairy bittercress	<i>C. hirsuta</i>	Likes moist and disturbed soils
Water cress	<i>Rorippa nasturtium aquaticum</i>	Fen springs
Thale cress	<i>Arabidopsis thaliana</i>	Annual weed, tiny, disturbed patches
Garlic mustard	<i>Alliaria petiolata</i>	Very common. Hedge banks and road edges
Shepherds purse	<i>Capsella bursa-pastoris</i>	Common. Arable field margins and wasteland
Shepherds cress	<i>Teesdalia nudicaulis</i>	Threatened species.
Horse radish	<i>Amoracia rusticana</i>	Old gardens and near older houses
Garden candytuft	<i>Iberis umbellata</i>	Garden escape. Roadside verge
Wild radish	<i>Raphanus raphanistrum</i>	Arable – light, disturbed soil
Wild mignonette	<i>Reseda lutea</i>	Airfield- growing alongside Weld
Weld	<i>R. luteola</i>	Airfield and along old tracks
Heather	<i>Calluna vulgaris</i>	In area of Mill Lane
Biting stonecrop	<i>Sedum acre</i>	Airfield and Nethergate St. – a frequent species in Breckland
White stonecrop	<i>S. album</i>	West of Airfield
Cowslip	<i>Primula veris</i>	Damp hedges, ditches and verges to the east of parish
Primrose	<i>P. vulgaris</i>	Hedges, verges and ditches.
Scarlet pimpernel	<i>Anagallis arvensis</i>	Arable field margins and disturbed soils
Bog pimpernell	<i>A. tenella</i>	Hopton Fen, open areas
Brookweed	<i>Samolus valerandi</i>	Hopton Fen, open areas
Red currant	<i>Ribes rubrum</i>	Fen carr
Rowan	<i>Sorbus aucuparia</i>	Probably planted. Olive's Throat
Whitebeam	<i>Sorbus aria</i> agg	Ditch edge. Nethergate Street
Wild cherry	<i>Prunus avium</i>	Probably planted. Olive's Throat
Blackthorn	<i>Prunus spinosa</i>	Common in hedges
Bird cherry	<i>Prunus Padus</i>	Probably planted. Olive's Throat
Apple	<i>Malus pumila</i>	In hedges to East of parish especially
Hawthorn	<i>Crataegus monogyna</i>	Common in hedges. Grows easily on lighter soils
Field rose	<i>Rosa arvensis</i>	Found in hedges
Dog rose	<i>Rosa Canina</i>	Common. Many hybrids and sub species
Bramble	<i>Rubus fruticosus</i> agg.	Many sub species. Common
Raspberry	<i>Rubus idaeus</i>	Boardwalk and other areas of wet woodland
Tormentil	<i>Potentilla erecta</i>	Found in damp meadows and Fens
Creeping cinquefoil	<i>P. reptans</i>	Common in many open grassy areas like verges
Silverweed	<i>P. anserina</i>	Likes moist soils
Garden Lady's mantle	<i>Alchemilla mollis</i>	Verges near gardens
Agrimony	<i>Agrimony eupatoria</i>	Grassy verges- Shortgrove Lane
Meadowsweet	<i>Filipendula ulmaria</i>	Wet meadows, ditch and stream banks
Wood avens	<i>Geum urbanum</i>	Likes shady places; Boardwalk and Olive's Throat
Gorse	<i>Ulex europaeus</i>	Thick hedges at the end of Mill Lane

Broom	<i>Cytisus scoparius</i>	Edge of the airfield conifer plantation
Red clover	<i>Trifolium pratense</i>	Occasional in grass. Grown in hay meadows
White clover	<i>T. repens</i>	Common native perennial
Hares foot clover	<i>T. arvense</i>	Found in dry open sandy places
Lesser trefoil	<i>T. dubium</i>	Common in short grassland
Hop trefoil	<i>T. campestre</i>	Airfield and Bury Rd on rough shingle
Black medic	<i>Medicago lupulina</i>	Common in dry places
Lucerne	<i>Medicago sativa</i>	Grown as a fodder crop and found in neighbouring field margins
Common birds foot trefoil	<i>Lotus corniculatus</i>	Sandy open grassland like Donkey Field
Greater birds foot trefoil	<i>L. pendunculatus</i>	Moist meadows like Boardwalk SSSI
Common vetch	<i>Vicia sativa</i>	Found in well drained grassland
Tufted vetch	<i>Vicia cracca</i>	Fen margins and other grassland.
Meadow vetchling	<i>Lathyrus pratensis</i>	Boardwalk SSSI and Hopton Fen
Purple loosestrife	<i>Lythrum salicaria</i>	Wet meadows, ditch and stream banks
Great Willowherb	<i>Epilobium hirsutum</i>	Wet meadows, ditch and stream banks
Marsh willowherb	<i>E. palustre</i>	Hopton Fen and damp meadows
Rosebay willowherb	<i>Chamerion angustifolium</i>	Knettishall Rd., Mill Lane and disturbed sites
Evening primrose	<i>Oenothera glazioviana</i>	Garden escape, field edges and verges near Fen St
Great Willowherb	<i>Epilobium hirsutum</i>	Margins of Hopton Brook and ditches
Marsh Willowherb	<i>Epilobium palustre</i>	Hopton Fen and damp meadows
Enchanter's Nightshade	<i>Circaea lutetiana</i>	Shady glades around Fen Carr
Dogwood	<i>Cornus sanguinea</i>	Hedges, probably planted
Spindle	<i>Euonymus europaeus</i>	Hedges, probably planted
Holly	<i>Ilex aquifolium</i>	Found in woodlands
Wood spurge	<i>Euphorbia amygdaloides</i>	
Sun spurge	<i>E. helioscopia</i>	Arable field margins to East
Petty spurge	<i>E. peplus</i>	Field margins and disturbed ground
Caper spurge	<i>E. lathyrus</i>	Found on disturbed ground, road verges
Annual mercury	<i>Mercurialis annua</i>	Arable field margins, likes light soils
Horse chestnut	<i>Aesculus hippocastanum</i>	Specimens on Nethergate St.
Field maple	<i>Acer campestre</i>	Native on moist soils. Possibly planted in hedges
Sycamore	<i>A. pseudoplatanus</i>	A pioneering weed, threatening other habitats
Herb Robert	<i>Geranium robertianum</i>	Common
Long stalked cranesbill	<i>G. columbinum</i>	Fine example along Fen St
Doves foot cranesbill	<i>G. molle</i>	Common
Round leaved cranesbill	<i>G. rotundifolium</i>	Road verge Nethergate St.
Common storksbill	<i>Erodium cicutarium</i>	Sandy areas to West
Hedgerow cranesbill	<i>G. pyrenaicum</i>	Hedgerows and field margins
Ivy	<i>Hedera helix</i>	Common growing through hedges and up trees
Cow parsley	<i>Anthriscus sylvestris</i>	Common in verges during the spring
Ground elder	<i>Aegopodium podagraria</i>	Found in hedge banks and woodlands

Wild carrot	<i>Daucus carota</i>	Sand bank/arable margin Hopton Fen
Hogweed	<i>Heracleum sphondylium</i>	Very common in a variety of open habitats
Alexanders	<i>Smyrniolus olusatrum</i>	Common Road and Hopton Church. Likes lighter and disturbed soils
Upright hedge parsley	<i>Torilis japonica</i>	Likes dry soils
Rough chervil	<i>Chaerophyllum temulum</i>	Common on road verges and sandy soils
Hemlock	<i>Conium maculatum</i>	Small uncut meadows
Fools parsley	<i>Aethusa cynapium</i>	Likes disturbed soil of field margins
Common centaury	<i>Centaureum erythraea</i>	Breckland species
Fennel	<i>Foeniculum vulgare</i>	Naturalised from gardens in field margins West
Lesser water parsnip	<i>Berula erecta</i>	Common in ditches and Hopton Brook
Hemlock	<i>Conium maculatum</i>	Likes rough damp grassland
Marsh pennywort	<i>Hydrocotyle vulgaris</i>	Hopton Fen and damp meadows
Greater periwinkle	<i>Vinca major</i>	Roadside verges, naturalised from gardens
Duke of Argyll's tealplant	<i>Lycium barburum</i>	Examples in hedges, Fen St., Mill Lane, Common Rd.
Woody nightshade	<i>Solanum dulcamara</i>	A climber found in damp woods
Henbane	<i>Hyoscyamus niger</i>	Increasingly rare. Arable field August 2020
Field bindweed	<i>Convolvulus arvensis</i>	Common
Hedge bindweed	<i>Calystegia sepium</i>	Common
Changing forget me not	<i>Myosotis discolor</i>	Field margins and disturbed ground
Field forget me not	<i>Myosotis arvensis</i>	Common on field margins
Vipers bugloss	<i>Echium vulgare</i>	Breckland sp. Airfield track
Bugloss	<i>Anchusa arvensis</i>	Arable field margins. Airfield
Russian comfrey	<i>Symphytum x uplandicum</i>	Occasional in rough grassland
Common fiddleneck	<i>Amsinckia micrantha</i>	US alien brought in with carrot seed. Established field margins to West
Green alkanet	<i>Pentaglottis sempervirens</i>	Footpath edge Nethergate St.
Self heal	<i>Prunella vulgaris</i>	Wet meadows and grassland
Water mint	<i>Mentha aquatica</i>	Wet meadows, fens, streams and grassland
Gypsywort	<i>Lycopus europaeus</i>	Hopton Fen and damp meadows
Red dead nettle	<i>Lamium purpureum</i>	Occasional in verges
White dead nettle	<i>L. album</i>	Common
Variogated archangel	<i>Lamiastrum galeobdolon</i>	Fen St. verge (mown)
Ground ivy	<i>Glechoma hederacea</i>	Hedges, verges and woodland edges
Bugle	<i>Ajuga reptans</i>	Damp meadows and fens
Hedge Woundwort	<i>Stachys sylvatica</i>	Wet woodland
Marsh woundwort	<i>Stachys palustris</i>	Hopton Fen margins
Black horehound	<i>Marrubium vulgare</i>	Common but under recorded.
Skullcap	<i>Scutellaria galericulata</i>	Edge Hopton Brook
Common hemp nettle	<i>Galeopsis tetrahit</i>	Old dry grassland
Henbit dead nettle	<i>Lamium amplexicaule</i>	Sandy field margin airfield
Mares tail	<i>Hippuris vulgaris</i>	Hopton Fen and damp meadows
Ribwort plantain	<i>Plantago lanceolata</i>	Common
Geater plantain	<i>P. major</i>	Common along tracks and grazed sites

Hoary plantain	<i>P. media</i>	Occasional in grass. Grown in hay meadows
Butterfly bush	<i>Buddleja davidii</i>	Church
Ash	<i>Fraxinus excelsior</i>	Suffering Chalera die back in mature trees
Lilac	<i>Syringa vulgaris</i>	Established in hedges to West
Wild privet	<i>Ligustrum vulgare</i>	Frequent in hedges
Great Mullein	<i>Verbascum thapsus</i>	Established in well drained soils, rough grassland
Common figwort	<i>Scrophularia nodosa</i>	Found in damp ditches
Foxglove	<i>Digitalis purpurea</i>	Occasional. Garden escapes?
Ivy leaved toadflax	<i>Cymbalaria muralis</i>	Hopton churchyard wall
Common Toadflax	<i>Linaria vulgaris</i>	Migrated from west of parish to light soils in east
Germander speedwell	<i>Veronica chamaedrys</i>	Common. Often seen in Donkey field with hairy terminal bud 'cats' bollocks' caused by infestation of midge <i>Jaapiella veronicae</i>
Common field speedwell	<i>V. persica</i>	Arable fields
Ivy leaved speedwell	<i>V. hederifolia</i>	Likes disturbed, lighter soils
Thyme leaved speedwell	<i>V. serpyllifolia</i>	Well grazed grassland, Fen St.
Wall speedwell	<i>V. arvensis</i>	Common on dry disturbed ground and tracks
Wood speedwell	<i>V. montana</i>	Damp soils along old tracks
Marsh lousewort	<i>Pedicularis palustris</i>	Large areas Hopton Fen
Yellow rattle	<i>Rhinanthus minor</i>	Distribution in parish has changed since 2010
Creeping bellflower	<i>Campanula rapunculoides</i>	Shortgrove Lane
Harebell	<i>Campanula rotundifolia</i>	Heathy track Hopton Fen to Mill Lane
Heath Bedstraw	<i>Galium saxatile</i>	Heathy track Hopton Fen to Mill Lane
Lady's bedstraw	<i>G. verum</i>	Airfield
Fen bedstraw	<i>G. uliginosum</i>	Hopton Fen and damp meadows
Goosegrass	<i>G. aparine</i>	Common
Elder	<i>Sambucus nigra</i>	Frequent in hedges
Guelder rose	<i>Viburnum opulus</i>	Hopton Fen and damp meadows
Honeysuckle	<i>Lonicera periclymenum</i>	Climbing through trees in shady places like N of Mill Lane
Snowberry	<i>Symphoricarpos albus</i>	Olive's throat
Marsh valerian	<i>Valeriana dioica</i>	Growing in scrapes Hopton Fen
Teasel	<i>Dipsacus fullonum</i>	Greyhound Lane ditch
Field scabious	<i>Knautia arvensis</i>	A number of sites especially Shortgrove Lane
Devils bit scabious	<i>Succisa pratensis</i>	Hopton Fen and damp meadows
Ragwort	<i>Senecio jacobaea</i>	Less common than in previous years.
Groundsel	<i>S. vulgaris</i>	Common road edges and field margins etc.
Daisy	<i>Bellis perennis</i>	Common. Cut and amenity grassland
Colts foot	<i>Tussilago farfara</i>	Donkey field in damp corner
Yarrow	<i>Achillea millefolium</i>	Common in many places on dry grassland
Hemp agrimony	<i>Eupatorium cannabinum</i>	Damp meadows, Hopton Brook and ditches

Scentless mayweed	<i>Tripleurospermum inodorum</i>	Common arable fields
Pineapple weed	<i>Matricaria discoidea</i>	Common. Tracks and field edges
Canadian fleabane	<i>Erigeron acer</i>	Road verges and meadow edges
Mugwort	<i>Artemisia vulgaris</i>	Common arable fields
Common cudweed	<i>Filago vulgaris</i>	Arable margins
Cotton thistle	<i>Onopordum acanthium</i>	Field margins and disturbed ground
Spear thistle	<i>Cirsium vulgare</i>	Common along tracks and grazed sites
Milk thistle	<i>Silybum marianum</i>	Weston Fen meadow
Stemless thistle	<i>Cirsium acaule</i>	One example old trackway
Marsh thistle	<i>C. palustre</i>	Hopton Fen and damp meadows
Common knapweed	<i>Centaurea nigra</i>	Common everywhere
Milk thistle	<i>Silybum marianum</i>	Fen meadows
Burdock	<i>Arctium minus</i>	Widespread and common
Dandelion	<i>Taraxacum agg</i>	250 sub species.
Nipplewort	<i>Lapsana communis</i>	Common in grassland
Goats beard	<i>Tragopogon pratensis</i>	Grassland and road verges
Oxeye daisy	<i>Leucathemum vulgare</i>	Stronghold in the CWS
Lords and Ladies	<i>Arum maculatum</i>	Damp woodlands and old trackways
Cats ear	<i>Hypochaeris radicata</i>	Common in grassland to west
Rough hawkbit	<i>Leontodon hispidus</i>	Frequent in grassland
Autumn hawkbit	<i>Leontodon autumnalis</i>	Frequent in grassland
Beaked hawk's beard	<i>Crepis vesicaria</i>	Roadsides
Bristly oxtongue	<i>Picris echioides</i>	Found on old trackway
Hawkweeds	<i>Hieracium agg</i>	Many micro-species
Fox and cubs	<i>Pilosella aurantiaca</i>	Damp grassland
Prickly sow thistle	<i>Sonchus oleraceus</i>	Arable fields/airfield
Perennial sow thistle	<i>S. arvensis</i>	Arable fields and roadside verges
Prickly lettuce	<i>Lactuca serriola</i>	Arable margins, airfield track
Lords and Ladies	<i>Arum maculatum</i>	Common in shady places. Woodland and ditch banks
Grape hyacinth	<i>Muscari neglectum</i>	SPS. Fen Street
Common Fleabane	<i>Pulicaria dysenterica</i>	Shortgrove Lane arable margin
Golden Rod	<i>Solidago virgaurea</i>	Sandy grassland. Infrequent
Bluebell	<i>Hyacinthoides nonscripta</i>	Fen St. verge (mown)
Spanish/hybrid bluebell	<i>H. hispanica/massartiana</i>	Fen St. verge (mown)
Daffodil	<i>Narcissus pseudonarcissus</i>	Frequent in verges
Snowdrop	<i>Galanthus nivalis</i>	Frequent in verges
Star of Bethlehem	<i>Ornithogalum angustifolium</i>	SSSI meadow
Yellow iris	<i>Iris pseudacorus</i>	Fens and ditches
Black bryony	<i>Tamus communis</i>	PC pit hedge
Water plantain	<i>Alisma plantago-aquatica</i>	Recently cleared ditch
Common spotted orchid	<i>Dactylorhiza fuchsii</i>	Lowland meadows
Narrow leaved Marsh Orchid	<i>D. traunsteineri</i>	Hopton Fen and damp meadows
Early marsh orchid	<i>D. incarnata ssp. Ochroleuca</i>	SPS. Hopton Fen
Bee orchid	<i>Ophrys apifera</i>	Nethergate St. gardens

## Grasses, Sedges, Rushes and Ferns recorded in Hopton Parish 2019/2020

Common name	Scientific name
Bracken	<i>Pteridium aquilinum</i>
Broad Buckler Fern	<i>Dryopteris dilatata</i>
Horse tail-Field	<i>Equisetum arvense</i>
Marsh horsetail	<i>Equisetum palustre</i>
Annual meadow grass	<i>Poa Annua</i>
Rough meadow grass	<i>P.trivialis</i>
Cock's foot	<i>Dactylis glomerata</i>
Sheeps fescue	<i>Festuca ovina</i>
Couch grass	<i>Elymus repens</i>
False oat grass	<i>Arrhenatherum elatius</i>
Wild oats	<i>Avena fatua</i>
Crested dog's tail	<i>Cynosurus cristatus</i>
Wall barley	<i>Hordeum murinum</i>
Meadow Fow tail	<i>Alopecurus pratensis</i>
Timothy grass	<i>Phleum pratense</i>
Sterile brome	<i>Bromus sterilis</i>
Perrenial rye	<i>Lolium perenne</i>
Yorkshire fog	<i>Holcus lanatus</i>
Quaking grass	<i>Briza media</i>
Barren Brome	<i>Anisantha sterilis</i>
Soft Brome	<i>Bromus hordeaceus</i>
Wood brome/False brome	<i>Brachypodium sylvaticum</i>
Reed	<i>Phragmites australia</i>
Saw sedge	<i>Cladium</i>
Greater pond sedge	<i>Carex riparia</i>
False fox sedge	<i>Carex otrubae</i>
Pendulous sedge	<i>Carex pendula</i>
Tussock sedge	<i>Carex paniculata</i>
Common rush	<i>Juncus conglomeratus</i>
Compact rush	<i>J. conglomeratus</i>
Jointed rush	<i>J. articulatus</i>
Blunt flowered rush?	<i>J. subnodulosus</i>
Hard rush	<i>J. inflexus</i>
Soft rush	<i>J. effusus</i>
Black bog rush	<i>Schoenus nigrans</i>
Field wood rush	<i>Luzula campestris</i>
Bulrush	<i>Typha latifolia</i>

### Common Fungi recorded in Hopton Parish 2019/2020

Common name	Scientific name
Field Mushroom	Agaricus campestris
Parasol	Macrolepiota procera
Fly Agaric	Amanita muscaria
Sulphur tuft	Hypholoma fasciculare
Verdigris agaric	Stropharia aeruginosa
Pale oyster	Pleurotus pulmonarius
Turkey tail	Trametes versicolor
Stinkhorn	Phallus impudicus
Giant puffball	Calvatea gigantea
Mosaic puffball	Handkea utriformis
Grassland puffball	Lycoperdon lividum
Common jellyspot	Dacrymyces stillatus
Jelly ear	Auricularia auricula-judae
Witches butter	Exidia glandulosa
Small stagshorn	Calocera cornea
Candle snuff	Xylaria hypoxylaon
Coral spot	Nectria cinnabarina
King Alfred's cakes	Daldinia concentrica

### Mammals recorded in Hopton Parish 2019/2020

Common Name	Scientific Name	Notes
Wood mouse	Apodemus Sylvestris	Feeding evidence
Bank vole	Myodes glareolus	Feeding evidence and observed
House mouse	Mus musculus	Common
Wood mouse	Apodemus sylvaticus	Feeding signs
Brown rat	Rattus norvegicus	Common
Common shrew	Sorex araneus	Observed
Pygmy shrew	Sorex minutus	Observed
Hedgehog	Erinaceus europaeus	SPS- individuals rehabilitated and re-released 2019
Mole	Talpa europaea	Common in damp meadows
Badger	Meles meles	Sett in neighbouring parish. Dung pits and tracks found
Muntjac deer	Muntiacus reevesi	Very common in gardens
Roe deer	Capreolus capreolus	Arable fields and wood margins
Rabbit	Oryctolagus cuniculus	High numbers airfield arable. Many areas of Breckland showing population crash.
Hare	Lepus europaeus	SPS
Grey squirrel	Sciurus carolinensis	Common
Fox	Vulpes vulpes	Frequently seen Hopton Fen and Fen St.
Pole cat	Mustela putorius	SPS-individual caught and released
Weasel	Mustela nivalis	Seen along roads
Stoat	Mustela erminea	Very occasional sighting
Otter	Lutra lutra	Hopton Brook, wet meadows

*In addition to this list Water vole (Arvicola amphibius) is believed to be present Weston Fen meadows*

**Bats**

Common pipistrelle	Pipistrellus pipistrellus	Breeding in parish
Soprano pipistrelle	Pipistrellus pygmaeus	Almost indistinguishable from Common Pipistrelle
Brown long eared bat	Plecotus auritus	Breeding in parish in houses
Barbastelle Bat	Barbastella barbastella	Rare species UK BAP, Suffolk Bat Atlas 2016
Serotine Bat	Eptesicus serotinus	Associated with pasture. Suffolk Bat Atlas 2016
Daubenton's Bat	Myotis daubentonii	Recorded in parish pre 2012 and in neighbouring parishes post 2012.
Natterers Bat	Myotis natterrei	Present 2016
Leisler's Bat	Nyctalus leisleri	Recorded to SE parish 2012-present
Noctule Bat	Nyctalus noctula	Both pre and post 2012 records

*Additional records from tetrad squares shown in the 'Bats in Suffolk Distribution Atlas 1983 – 2016'*

*All records are post-2012*

**Birds recorded in Hopton Parish 2019/2020**

*Birds of Conservation Concern Status - Red and Amber are the highest levels of concern for species breeding in the UK\**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Notes</b>
Little Egret	Egretta garzetta	Damp meadows along Hopton Brook
Grey Heron	Ardea cinerea	Occasional- visits garden fish ponds
Greylag goose		Amber- grazing on arable
Egyptian goose	Alopochen aegyptiacus	Migrant arriving March/April since 2017(?)
Mallard	Anas platyrhynchos	Amber
Common buzzard	Buteo buteo	Often above village
Red kite	Milvus milvus	Observed along Hopton Brook valley 2020
Sparrowhawk	Accipiter nisus	Pair nesting in wet woodland
Kestrel	Falco tinnunculus	Amber- breeding pair
Osprey	Pandion haliaetus	Amber Observed flying over parish early September
Marsh Harrier	Circus aeruginosus	Amber Breeding within 6 miles. Observed hunting over fens and arable
Hobby	Falco subbuteo	Pair observed Weston fen meadows
Red legged partridge	Alectoris rufa	Arable fields
Grey partridge	Perdix perdix	SPS
Pheasant	Phasianus colchicus	Release for shoot
Moorhen	Gallinula chloropus	Lowland meadows
Coot	Fulica atra	Lowland meadows
Lapwing	Vanellus vanellus	Red
Curlew	Numenius arquata	Red
Woodcock	Scolopax rusticola	Red -Territorial flying in evenings
Oystercatcher	Haematopus ostralegus	Amber
Black headed gull	Larus ribindus	Arable fields
Herring gull	Larus argentatus	Red
Lesser black backed gull	Larus fuscus	Amber
Cuckoo	Cuculus canorus	Red-arrival around 25th April each year

Wood pigeon	<i>Columba palumbus</i>	Common
Collared dove	<i>Streptopelia decaoto</i>	Common
Barn owl	<i>Tyto alba</i>	Breeding-observed in Fen valley
Little owl	<i>Atbene noctua</i>	Seen along Knettishall Hill
Tawny owl	<i>Strix aluco</i>	Amber -breeding
Kingfisher	<i>Alcedo atthis</i>	Amber- seen along Hopton Brook & in near by gardens
Green woodpecker	<i>Picus viridus</i>	Breeding
Gt. spotted woodpecker	<i>Dendrocopos major</i>	Breeding
Swift	<i>Apus apus</i>	Amber-numbers dropping drastically, possibly. 3 breeding pairs 2020
Swallow	<i>Hirundo rustica</i>	Some pairs having 2nd brood 2020
House martin	<i>Delichon urbica</i>	Amber-breeding in neighbouring parish
Skylark	<i>Alauda arvensis</i>	Red-a number of singing individuals.Arable
Pied wagtail	<i>Motucilla alba yarrelli</i>	Breeding
Duncock	<i>Prunella modularis</i>	Amber-frequent visitor to feeders
Wren	<i>Troglodyte troglodytes</i>	Breeding
Linnet	<i>Carduelis cannabina</i>	Red-breeding
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber
Robin	<i>Erithacus rubecula</i>	Breeding
Blackbird	<i>Turdus major</i>	Breeding
Song thrush	<i>Turdus philomelus</i>	Red-breeding
Mistle thrush	<i>Turdus pilosus</i>	Red-observed feeding wet meadows
Redwing	<i>Turdus iliacus</i>	Red-winter visitor
Fieldfare	<i>Turdus pilaris</i>	Red-winter visitor
Whitethroat	<i>Sylvia communis</i>	Observed feeding
Garden warbler	<i>Sylvia borin</i>	Observed and heard
Blackcap	<i>Sylvia atricapilla</i>	Observed and heard
Chiffchaff	<i>Phyloscopus collybita</i>	Hopton and Weston Fen
Willow warbler	<i>Phyloscopus trochilis</i>	Amber- Hopton and Weston Fen
Gold crest	<i>Regulus regulus</i>	Feeding flock in conifers
Long tailed tit	<i>Aegithalas candatus</i>	Feeding flocks
Coal tit	<i>Parus alter</i>	Breeding
Willow tit	<i>Parus montanus</i>	Breeding?
Blue tit	<i>Parus caeruleus</i>	Breeding
Great tit	<i>Parus major</i>	Breeding
Tree creeper	<i>Certbia brachydactyla</i>	Amber-observed searching trees
Nuthatch	<i>Sitta europaea</i>	Seen on bird feeders and garden trees
Jackdaw	<i>Corvus monedula</i>	Observed with rooks
Rook	<i>C. frugilegus</i>	Established rookery
Crow	<i>C. corone</i>	Individuals seen in wet meadows
House sparrow	<i>Passer domesticus</i>	Red-breeding
Chaffinch	<i>Fringill coelehs</i>	Breeding
Greenfinch	<i>Carduelis chloris</i>	Breeding
Goldfinch	<i>Carduelis carduelis</i>	Numbers increasing 2020
Linnet	<i>C. cannabina</i>	Red-breeding Fen St.
Bullfinch	<i>Pyrrhuls pyrrhula</i>	Occasional sighting
Yellowhammer	<i>Emberiza citrinella</i>	Red- seen and heard along trackways.

Jay	Garrulus glandarius	Frequently heard calling
Magpie	Pica pica	Seen scavenging road kill
Golden plover	Pluvialis apricaria	Winter visitor

\*The population status of birds regularly found in the UK, Channel Islands and the Isle of Man is reviewed every five years to provide an up-to-date assessment of conservation priorities. Some 244 species being assigned to the Red, Amber or Green list of conservation concern with 67 (27.5%) of the UK's regularly occurring bird species now on the Red list. The assessment criteria include conservation status at global and European levels and, within the UK, historical decline, trends in population and range, rarity, localised distribution and international importance.

### Amphibians, Reptiles and Fish recorded in Hopton Parish 2019/2020

Common Name	Scientific Name	Notes
<b>Amphibians and reptiles</b>		
Common frog	Rana temporaria	Breeding in Fens, Wet woodland and garden ponds
Common toad	Bufo Bufo	Last seen 2019
Smooth Newt	Lissotriton vulgaris	Garden ponds, Fen Street
Grass snake	Natrix helvetica	Often seen in gardens, on roads, compost heaps
Common lizard	Zootoca vivipara	Basking in sun, dry sandy areas
Adder	Vipera berus	Last recorded on Knettishall airfield heathland pre 2020
<b>Fish</b>		
Minnow	Phoxinus phoxinus	Hopton brook
Ten spine stickleback	Pungitius pungitius	Hopton brook – slow sections
Bullhead	Cottus gobio	AW record, Hopton brook

### Invertebrates recorded in Hopton Parish 2019/2020

The lists have only just been started and are merely scratching the surface of species present.

Common Name	Scientific Name	Notes
<b>Butterflies</b>		
Peacock	Aglais io	Hibernating over winter
Small tortoiseshell	Aglais urticae	Hibernating over winter
Orange tip	Anthocharis cardamines	Numbers low 2020
Large white	Pieris brassicae	Pest to brassica crops in the garden. Common
Small white	Pieris rapae	
Green veined white	Pieris napi	
Common blue	Polyommatus icarus	First brood on the wing in April. Over wintering on Lucerne crops
Holly blue	Celestina argiolus	Occasional
Small copper	Lycaena phlaeas	Often seen in lowland meadows
Ringlet	Aphantopus hyperantus	Seen in meadows
Meadow brown	Maniola justina	Frequent in grassland
Gatekeeper	Pyronia tithonus	Occasional
Brimstone	Goneteryx rhamni	One of the first butterflies of the year to emerge

Large skipper	Ochlodes sylvanus	Often seen Shortgrove Lane
Small skipper	Thymelicus sylvestris	Seen on Knettishall airfield with Large Skipper
Speckled wood	Pararge aegeria	Wet woodland species
Comma	Polygonia c-album	Frequent garden visitor
Red admiral	Vanessa atlanta	Good numbers late summer feeding on windfall fruit
Painted lady	Vanessa cardus	Migrant. Many seen 2019

### ***Moths***

Cinnabar moth	Tyria jacobaeae	Adults seen May. Few caterpillars on Ragwort
Wax moth		Pest to bee hives
Hummingbird hawkmoth	Macroglossum stellatorum	Observed Fen Street gardens from July
Privet hawkmoth	Sphinx ligustri	Adult, Fen Street
Large yellow underwing	Noctua pronuba	Found in grassland
Common wainscot	Mythimna pallens	
The Lackey	Malacosoma neustiria	
Silver y	Autographs gamma	
The magpie	Abraxus grossulariata	
Horehound Long horn moth	Neophora fasciella	Photographed in grassland, June 2020

### ***Beetles***

Violet ground beetle	Carabus violaceus	Arable field margins
Glow worm	Lampyrus noctiluca	Meadows, grassland. Midsummer onwards
Lesser stag beetle	Dorcus parallelipipedus	Rotting timber
Cock chafer	Melolantha melolantha	Flying May/June
Seven spot ladybird	Coccinella 7 punctata	Common and hibernates
Harlequin ladybird	Harmonia axyridis	Seen 2019
Devils coach horse	Staphylinus olens	Occasional in leaf litter
Great diving beetle	Dytiscus marginalis	Pond resident
Whirligig beetle	Gyrinus sp.	Pond surface
Wasp beetle	Clytus arietus	Tall weeds, arable margins
Asparagus beetle	Crioceris asparagi	Found on asparagus plants in garden
Furniture beetle	Anobium punctatum	Older wood work in house
Cardinal beetle	Pyrochroa sp.	Abundant July
Pollen beetle	Meligethes aeneus	Particularly attracted to yellow flowers
Green flower beetle	Oedemera nobilis	Often seen on Cats ear flowers
Common Sexton beetle beetle	Nicrophorus vespilloides	Attracted to light. Found in house.

### ***Bugs***

Hawthorn shield bug		
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### ***Flies***

Hoverfly	Volucella inanis	Wasp nest scavenger. Found in houses
Bee fly	Bombylius major	First seen late April
St Marks fly	Bibio marci	Groups in sunny glades
Mosquito	Culex sp.	Breeding in standing water – much reduced in number
House Fly	Musca domesticus	

Horse Fly	Haematopota pluvialis	
Crane fly	Tipula sp.	
Fruit fly	Drosophila sp.	
Bee fly	Bombylius major	Flying from spring into early summer

### **Dragonflies and Damselflies**

**See report in main text for notes**

		Often seen along Hopton brook, meadows, gardens
Banded Demoiselle	Calopteryx splendens	
Common Emerald	Lestes sponsa	
Scarce emerald	Lestes dryas	
Large red damselfly	Pyrrhosoma nymphula	
Azure damselfly	Coenagrion puella	
Variable damselfly	Coenagrion pulchellum	
Common Blue damselfly	Enallagma cyathigerum	
Blue tailed damselfly	Ischnura elegans	
Hairy dragonfly	Brachytron pratense	
Migrant hawkler	Aeshna mixta	
Southern hawkler	Aeshna cyanea	
Brown hawkler	Aeshna grandis	
Norfolk hawkler	Aeshna isosceles	
Emperor	Anax imperator	
Four spot chaser	Libellula quadrimaculata	Common over ponds
Broad bodied chaser	Libellula depressa	Common
Black tailed skimmer	Orthetrum cancellatum	
Common darter	Sympetrum striolatum	
Ruddy darter	Sympetrum sanguineum	

### **Wasps**

Common Wasp	Vespula vulgaris	Common
Hornet	Vespa crabro	Nests in houses, trees and woodpiles

### **Bees**

**See report in main text for notes**

Ivy bee	Colletes hederæ	
Davies' colletes	Colletes daviesanus	
Common yellow faced bee	Hylaeus communis	
Gwynne's mining bee	Andrena bicolor	
Large gorse mining bee	Andrena bimaculata	
Hawthorn mining bee	Andrena chrysoceles	
Tawny mining bee	Andrena fulva	Large colony in sandy arable fields 2019
Orange tailed mining bee	Andrena haemorrhoa	
Buffish mining bee	Andrena nigroaenea	
Grey patched mining bee	Andrena nitida	
Small sallow mining bee	Andrena praecox	
Chocolate mining bee	Andrena scotica	
Wool Carder bee	Anthidium manicatum	
Large-headed resin bee	Heriades truncorum	
Small scissor bee	Chelostoma campanularum	

Red mason bee	<i>Osmia bicornis</i>
Patchwork leaf cutter bee	<i>Megachile centuncularis</i>
Willughby's leafcutter bee	<i>Megachile willughbiella</i>
Yellow shouldered nomad bee	<i>Nomada ferruginata</i>
Flavous/Panzer's nomad bee	<i>Nomada flava/panzeri</i>
Marsham's nomad bee	<i>Nomada marshamella</i>
Hairy-footed flower bee	<i>Anthophora plumipes</i>
Mourning bee	<i>Melecta albifrons</i>
Garden bumblebee	<i>Bombus hortorum</i>
Tree bumblebee	<i>Bombus hypnorum</i>
Red-tailed bumblebee	<i>Bombus lapidarius</i>
Common carder bee	<i>Bombus pascuorum</i>
Early bumblebee	<i>Bombus pratorum</i>
Buff-tailed bumble bee	<i>Bombus terrestris</i>
Vestal cuckoo bee	<i>Bombus vestalis</i>
Honey bee	<i>Apis mellifera</i>

## 5.5 Notes on Runways and Landing Lights

RAF Knettishall became operational in 1943 and occupied land in Hopton, Knettishall and Coney Weston being a dispersed site (accommodation and communal facilities were not immediately adjacent to the main airfield perimeter). Of the original airfield approximately 15% remains. RAF Knettishall was built to the 1942 war-time standard for RAF operational airfields known as 'Class A'.

**Class A airfields** were intended for use by heavy bombers and transports, they were the standard air base design for the Royal Air Force as well as U.S. Army Air Force units operating from the UK.

The specifications set by the British Air Ministry in August 1942 called for three converging strips, each containing a concrete runway optimally placed—if practicable at the site—at 60-degree angles to each other in a triangular pattern.

The longest strip was designated the main strip and aligned south west to north east wherever possible, this being chosen to allow aircraft to take off and land into the prevailing wind. The other two runways were to allow safe take-off and landing from either end when the wind was blowing from other directions.

The runways were connected by a *perimeter track* (peri-track), of a standard width of 50ft. A 30ft area was cleared and levelled on either side of the perimeter track.

The material needs for building runways suitable for heavy bombers were approximately 18,000 tons of dry cement and 90,000 tons of aggregate. Expected stress factors of 2,000 pounds per inch<sup>2</sup> led to runway thicknesses of six to nine inches of concrete slab laid on a hardcore base, covered with a layer of asphalt. In areas where there was no natural rock, such as East Anglia, stone had to be imported for the hardcore. Up to six trains ran daily from London to east Anglia carrying rubble from destroyed buildings in Luftwaffe raids. This material was used as hardcore for the airfields.



*Fig.35: Aerial Photograph of  
RAF Knettishall in 1951  
Source: English Heritage*

*Nb: During the war years, 444 RAF stations were constructed in the UK with paved runways, perimeter tracks and hardstandings, at a cost of £200m, excluding buildings. The total area of concrete laid in runways, perimeter tracks and aircraft dispersal points, was around 160m square yards which was compared in Parliament as a 9,000-mile-long, 30-feet-wide road from London to Peking.*

## **Landing Lights**

Is the concrete track on Hopton Fen a decoy runway?

There is some evidence to suggest that in fact the concrete track that remains on the Fen is part of the landing light system for Knettishall Airfield.

By 1941 a lighting system was under development for use by the RAF. Officially called 'Airfield Lighting' (AFL) it was usually referred to as Drem, from the Scottish fighter station from which it originated. Its main features included approach lights which led the aircraft to the runway in use, taxi-track lighting to enable them to disperse having landed, and in most cases an orbiting aid in the form of an extensive 12-mile-long circle of lights around which aircraft could fly whilst waiting their turn to land. In addition, the airfield lights were hooded and could only be seen by aircraft making a correct approach to land. By the end of the war 421 airfields had been equipped with a Drem system. The lights that formed part of the Drem system were:

- On the airfield itself: flarepath lights, taxi track lights, totem poles, angle of approach indicators, floodlights and dispersal track lighting, ground signals.
- Exterior to the airfield: outer circle lights, inner-centre-outer funnels and a 'lead in string' from the outer circle to each outer funnel.

Different versions of the Drem system were developed with a range of measurement as the system was refined:

- Mk I (Drem) outer circle was 1,000 yards from the end of each runway.
- Mk II/III outer circle was 2,000 yards from the end of each runway
- Mk II/III Funnels - Inner 500 yards, Centre 1,000 yards and Outer 1,500 yards from end of runway

The light at the end of the concrete path at Hopton Fen is approximately 1,600yards (1,500m) from the edge of the conifer band which marks the path of the main runway as measured on Google maps, which would be consistent with it being part of the outer funnel of lights in the later systems.

A typical bomber station would have needed 22 miles of underground and 30 miles of overhead wiring for its lighting equipment.

A radio hut was situated on Dairy Farm, where approaching aircraft could be monitored and an extensive amount of buried wire ran in a trench along the main access track to the farm. There is also evidence that cables ran alongside the concrete track onto the Fen. It has been suggested that the operator in the radio hut could switch the landing lights on when an allied aircraft approached.

Fen Street had no mains sewerage system prior to 1942. This was installed by USAAF as a thank you to the people of the village and could well have been put in at the same time as trenches were being dug (pers com.). It is also interesting to note that the hedge along Knettishall Road from Nethergate Street is clear of old oak trees. These were felled at the time of Knettishall Airfield's construction to leave a clear approach to the main runway.



*Fig. 36: Aerial map of Knettishall Road, in the NW of the parish*

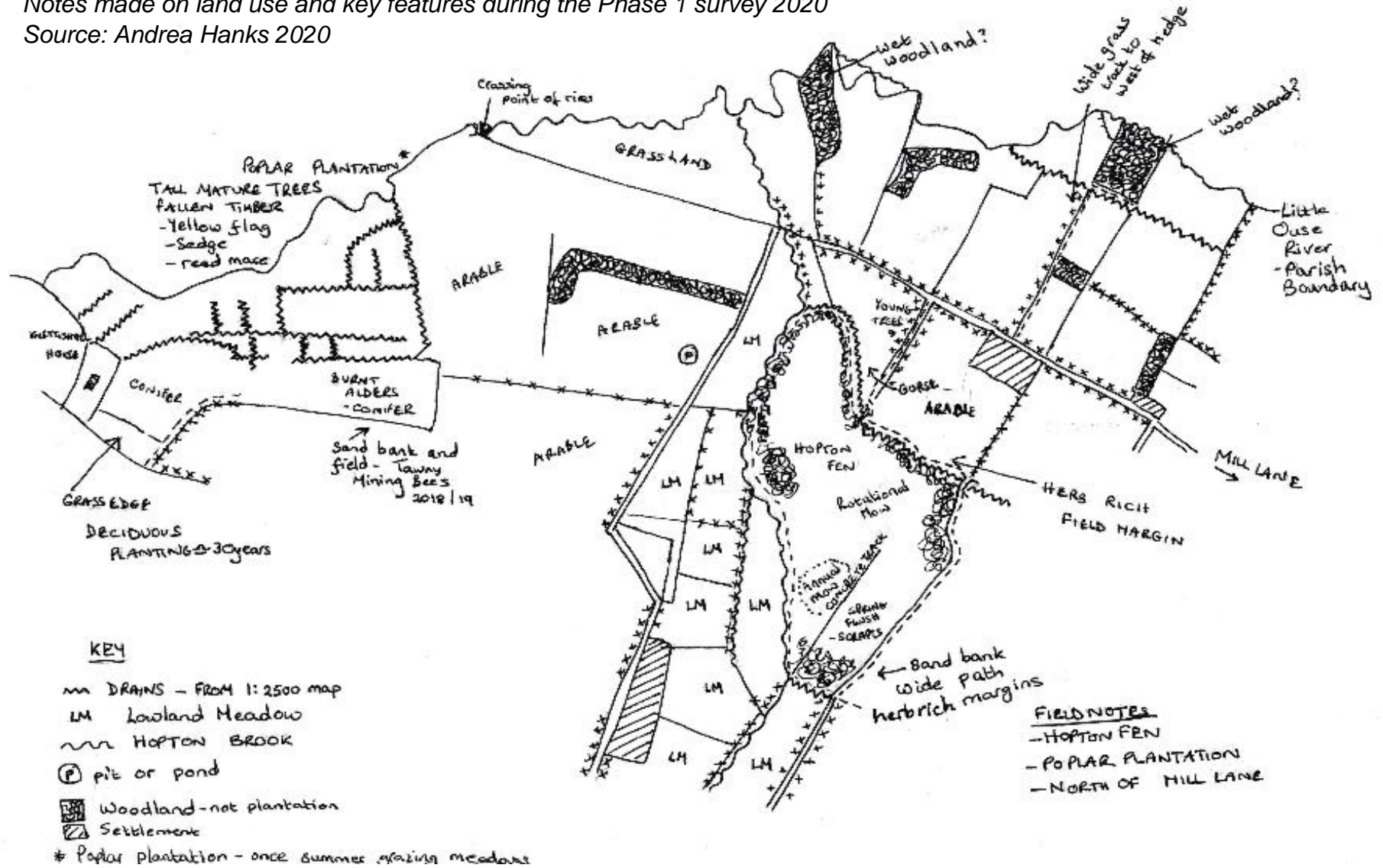
- *Blue line showing approach path to main runway from outer landing light on Hopton Fen.*
- *Polygon showing area of cleared trees from flight path.*

*Source: Google Earth*

## 5.6 Field Notes

Notes made on land use and key features during the Phase 1 survey 2020

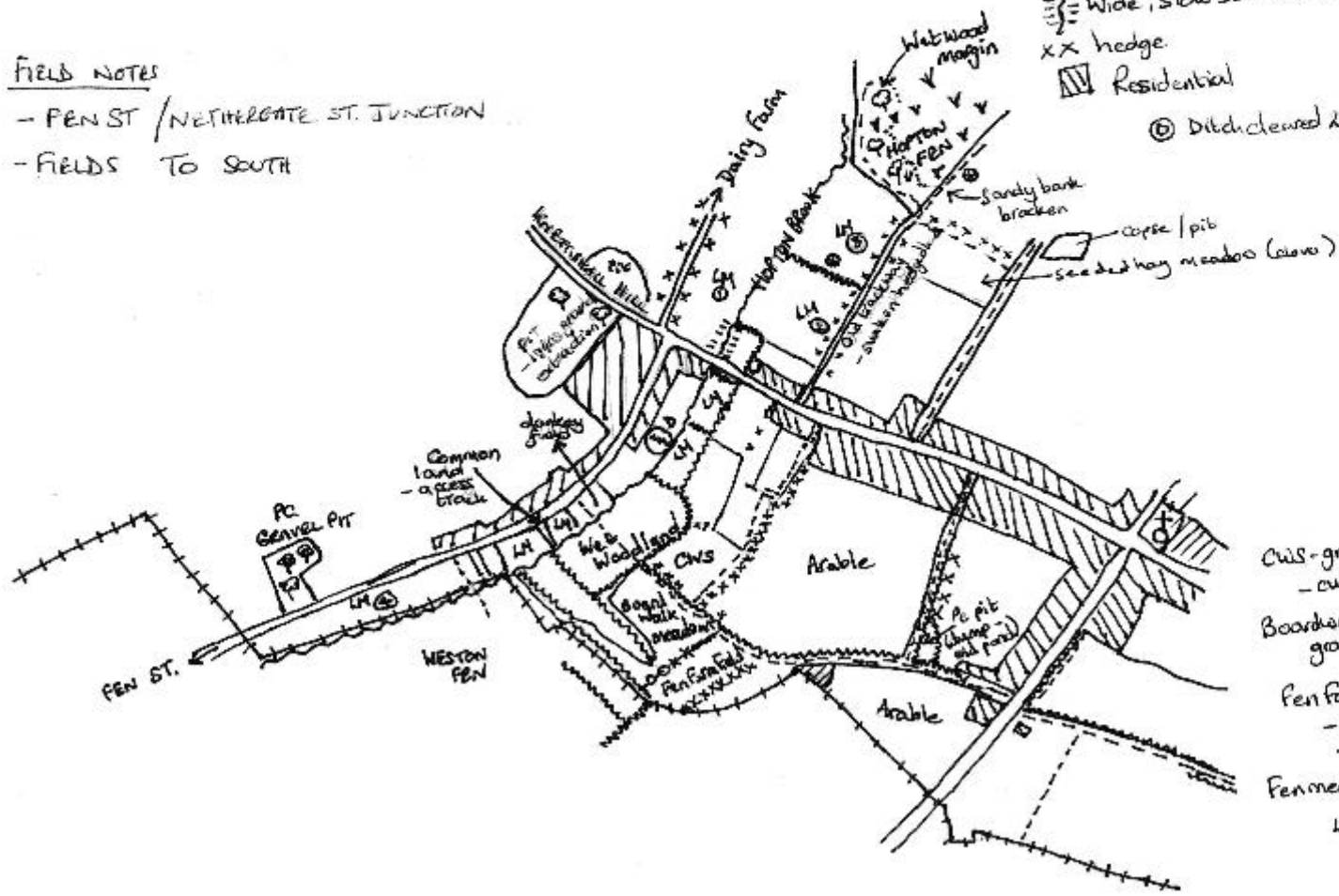
Source: Andrea Hanks 2020



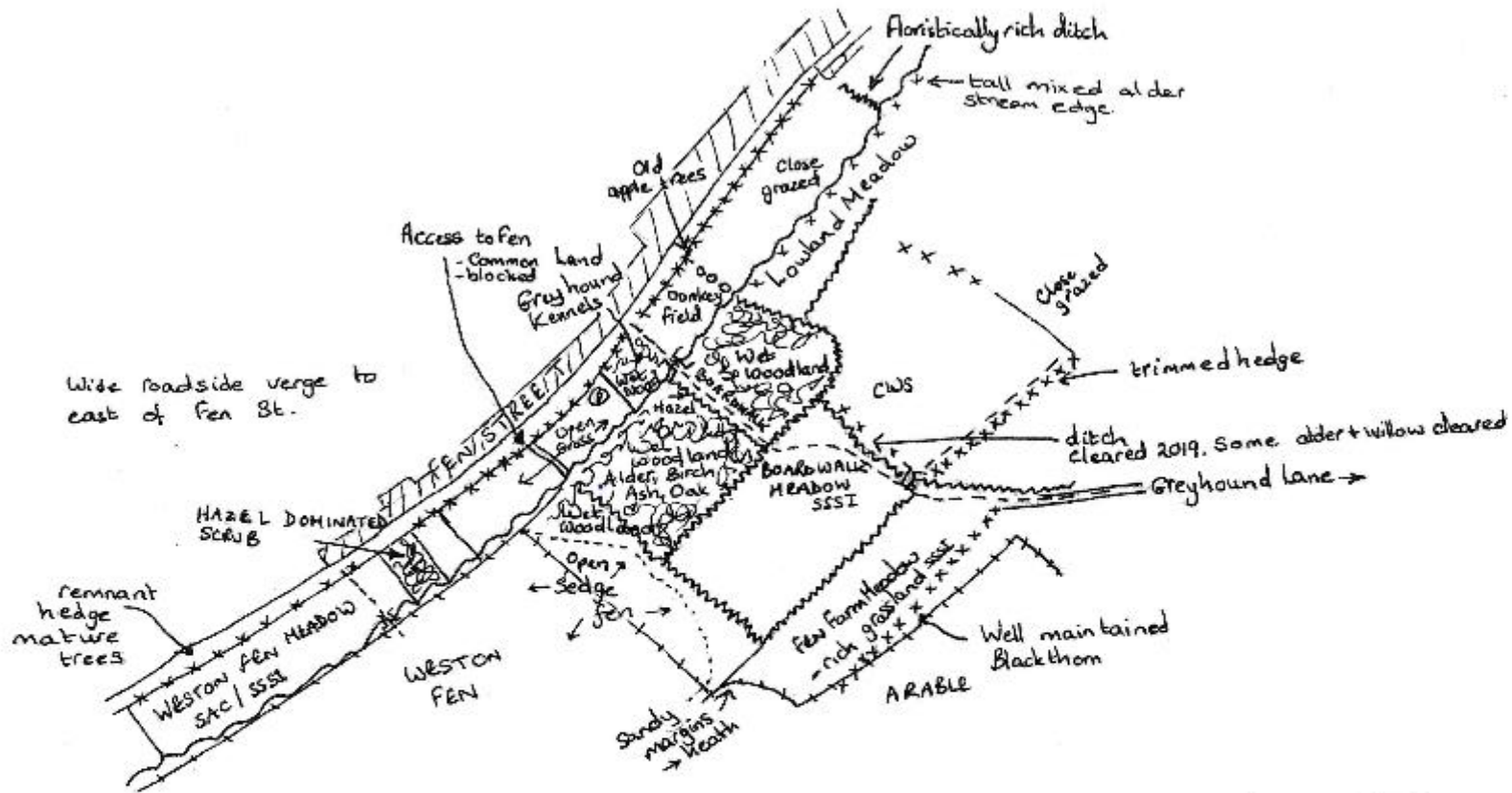
FIELD NOTES

- FEN ST / NETHERGATE ST. JUNCTION
- FIELDS TO SOUTH

- KEY
- ++++ Parish boundary
  - ~~~~~ Hopton Brook
  - ~~~~~ ditch
  - ⊙ old pollard
  - ≡ wide, slow section brook
  - xx hedge
  - ▨ Residential
  - ⊙ Ditch cleared 2019 - herb rich



- CWS - grazed to April  
- cut mid July
- Boardsale meadow  
grazed until March
- Fen farm meadow  
- ungrazed  
- cut August
- Fen meadow ① - cut late July  
- then grazed
- LH ② Ungrazed
- ③ cut August  
(cut by 1st Nov)
- ④ Grazed from  
May - some



KEY

- ~~~~~ Hopton Brook
- mmmm Ditches
- xxx Hedges
- ☐ Settlement
- ☐ Woodland - not plantation
- - - Parish boundary

FIELD NOTES

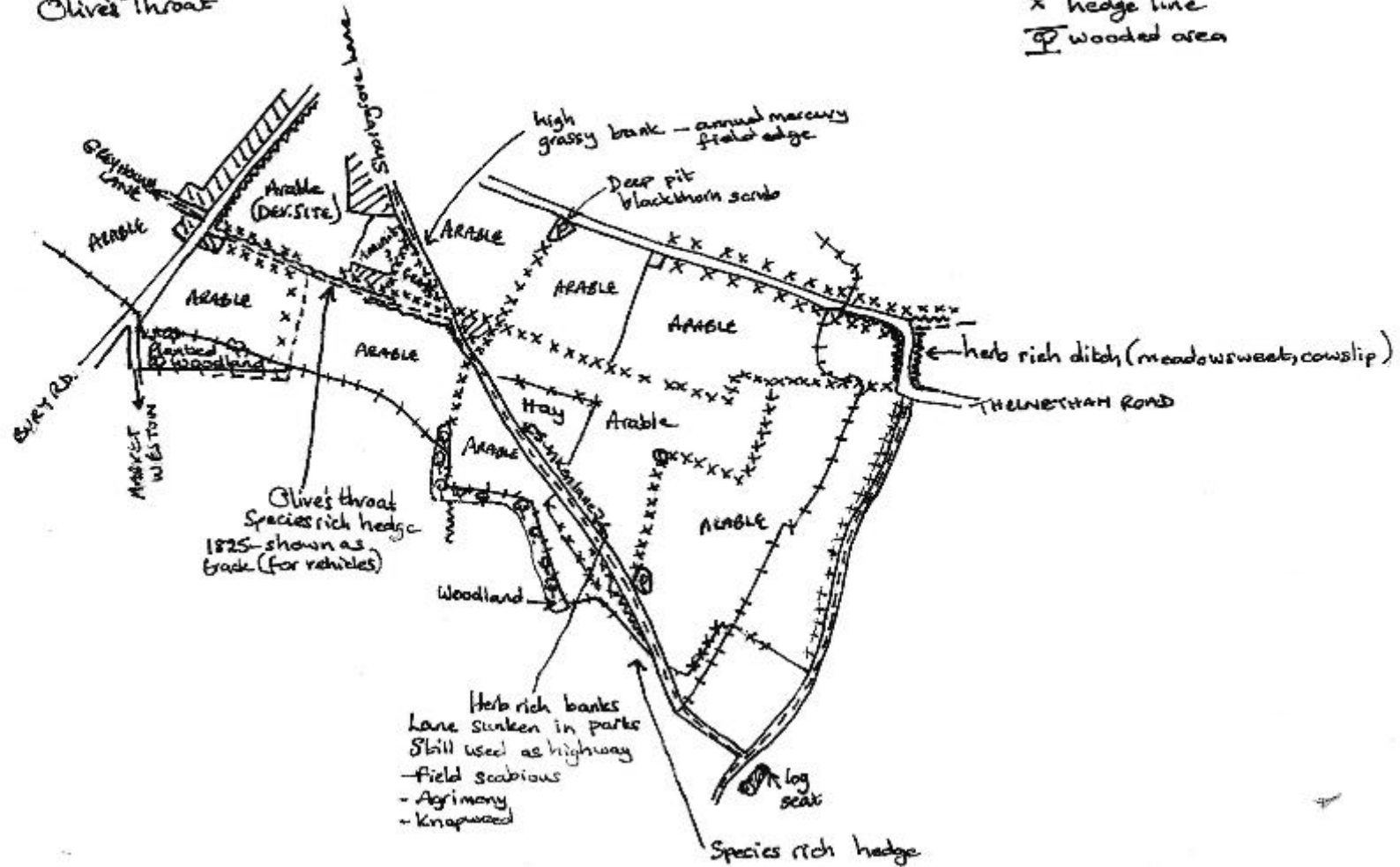
- FEN ST, WET WOODLAND
- LOWLAND MEADOWS

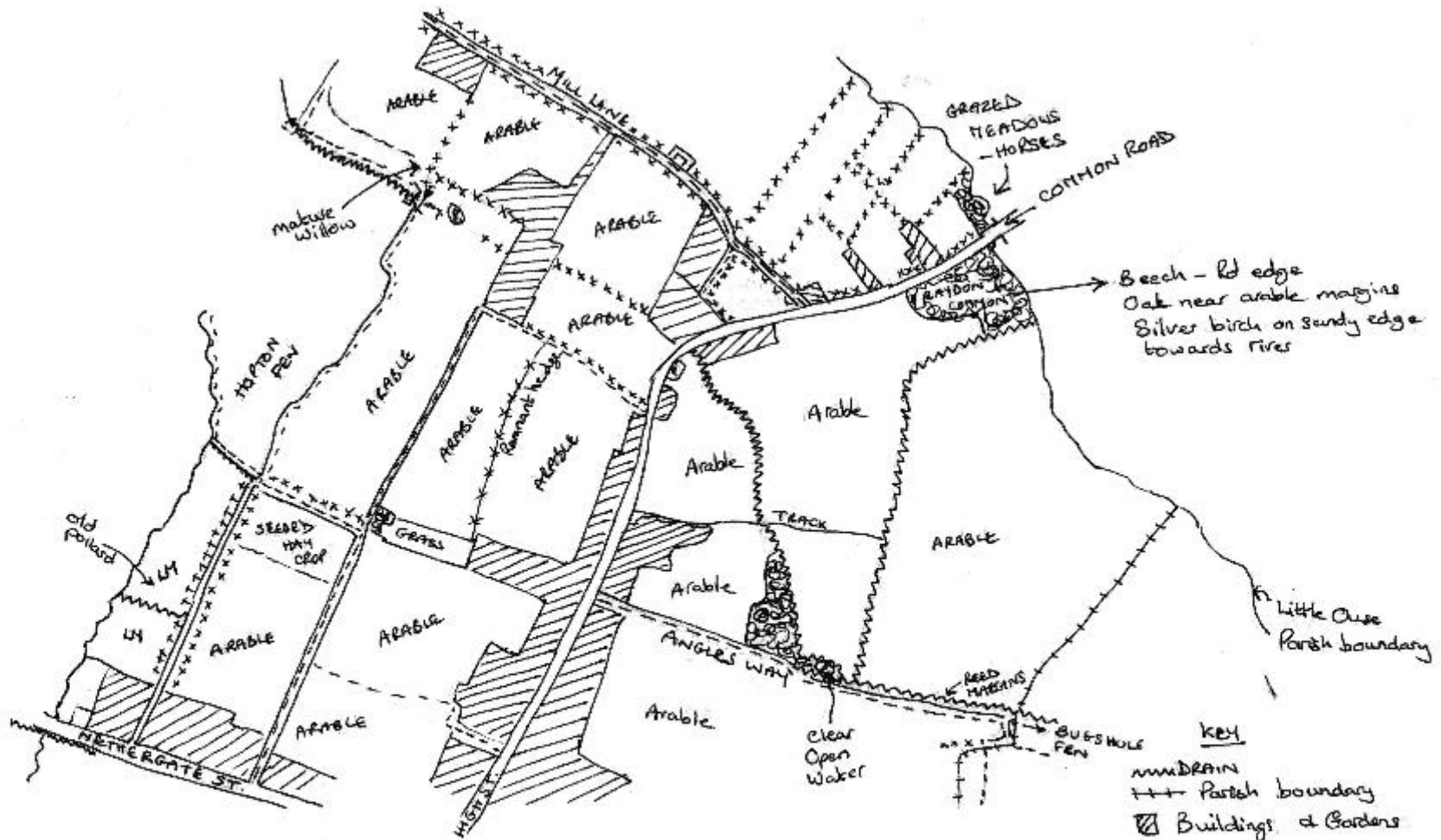
FIELD NOTES

- Shortgrove lane  
Oliver's Throat

KEY

- ▨ BUILDINGS & Gardens
- Ditch
- ⊙ Pit/pond
- x hedge line
- ⊞ wooded area





FIELD NOTES

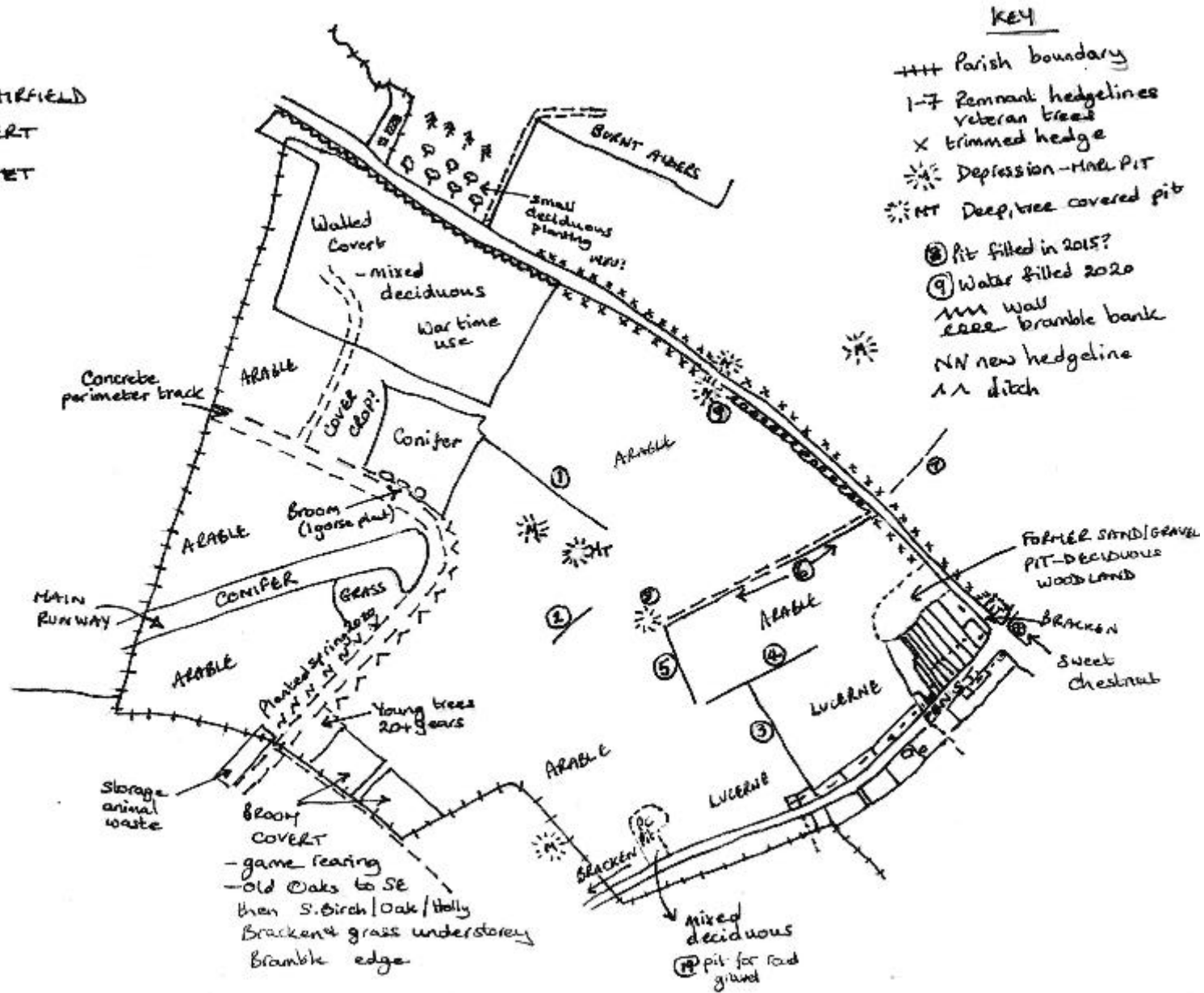
- HIGH ST.
- COMMON ROAD

- KEY
- DRAIN
  - +++ Parish boundary
  - ▣ Buildings & Gardens
  - ▨ Wooded areas
  - xxx Hedge line
  - ~ Hopton Brook
  - - - Footpath / bridlepath

FIELD NOTES

- KNETTISHAM AIRFIELD
- WALLED COVERT
- N.W. FEN STREET

Approx  
Scale 1:5000



## 5.7 Abridged Suffolk County Council Guidance on Landscape Management, as it relates to Hopton

### A. *Wooded Valley Meadowlands & Fens*

#### *Landscape Sensitivity & Change*

These landscapes are mostly narrow and enclosed by the valley sides. They can be profoundly affected by changes to the management of land and the construction of buildings on the valley sides.

Changes in land use, the loss of grassland and the creation of small horse paddocks and associated structures, can significantly degrade the quality and condition of this landscape.

New woodland plantations and the loss of grazing, leading to the spread of scrub, can also adversely affect the balance of woodland and grassland.

#### *Key Forces for Change*

- Development and land use change adjacent to this landscape type.
- Loss of grazing by cattle.
- Creation of new woodlands.
- Introduction of horse grazing.
- Neglect of the characteristic ditch and hedgerow networks.
- Conversion of grassland to arable production.
- Restoration and maintenance of valley fens for wildlife conservation.

#### *Maintenance of valley fens for wildlife conservation*

There is continued scope for habitat management and enhancement of fen sites for wildlife benefit. However, these changes need to be managed sensitively, giving careful consideration to the historic landscape and wider visual landscape impacts, as well as the issues raised by increased visitor numbers.

#### *Land Management Guidelines*

##### *– Support the continuation of traditional economic activities*

Restore and maintain the grazing with cattle and sheep. The continuation of traditional agricultural practices is integral to the character and condition of these landscapes and grazing is often critical to the successful management of important wildlife sites in this landscape.

##### *– Restore and retain the pattern of drainage*

The pattern of meadows divided by ditches and dykes are a characteristic feature of this landscape and should be maintained with sympathetic management. This will also deliver ecological benefits.

##### *– Maintain levels of grassland*

## ***B. Plateau Estate Farmlands***

### *Landscape Sensitivity & Change*

This is a flat or very gently rolling landscape of medium soils that is characteristic of the transition between the Brecks and the claylands, and between the Sandlings and the claylands.

This is a relatively “new” landscape of 18<sup>th</sup> and 19<sup>th</sup> century estate farms, and new woodlands. There are large number of enclosed heathlands and commons across these landscapes that are at the heart of this regular landscape pattern. There is scattered woodland cover, mostly in the form of rectangular plantations and coverts.

### *Key Forces for Change*

- Expansion of existing settlements into this landscape and creation of new settlement patterns and clusters associated with infrastructure development.
- Conversion and expansion of farmsteads for residential uses.
- Large-scale agricultural buildings in open countryside.
- Redevelopment of former airfield sites to new uses.
- Changes in the management and use of landscape parklands.
- The introduction of new agricultural techniques.
- Leisure as a driving force for changes in economic activity.

### *Redevelopment of former airfield sites*

In most cases a specific master-plan approach is the most effective way to deal with development of these sites. It is then possible to implement strategic planting schemes to mitigate the visual impact of long-term growth on the site, rather than dealing with proposals and mitigation on a piecemeal basis.

Specific issues relating to airfield development also include the preservation of cultural and historic features, such as bunkers and control towers, and the need for a design that retains them in an appropriate setting. Also, the alignment of runways etc can be echoed in the layout of buildings and the arrangement of planting.

### *Impact of deer on the condition of woodland cover*

Large-scale deer control should be supported, and individual sites may require deer fencing. New woodland plantings, as well as screening and mitigation schemes, will require effective protection from deer to support their establishment.

### *Visual impact of cropping and production, and land use changes*

The changes in cropping practices that have taken place across some of the Plateau Farmlands, such as the use of fleece and plastic, as well as outdoor pig production, have had a significant effect on the landscape. The siting and style of structures subject to planning control, such as static feed bins for pigs, poly tunnels or reservoirs should be appropriately conditioned to minimise their landscape impact.

### *Land Management Guidelines*

- Reinforce the historic pattern of regular boundaries.

- Restore the quality of elm hedges with coppice management.
- Restore, maintain and enhance the network of tree belts and pattern of small plantations found across much of this landscape type.
- Restore, maintain and enhance the historic parklands and the elements within them.
- Encourage and support appropriate planting and management of woodlands

These landscapes contain a proportion of wet and plantation woodland, and it is important to maintain the appropriate balance of grassland and woodland. While wet woodland is an important part of the habitat mix in this landscape excessive creation of plantation woodland should be avoided.

### ***C. Rolling Valley Farmlands and Furze***

#### *Landscape Sensitivity & Change*

These are valley side landscapes with river terraces or exposures of sandy or chalky (in the Gipping valley) soil that are set in a wider clayland landscape. Along the Waveney and at the head of the Gipping there are distinct areas of acid sandy soils with former or extant heaths and commons. Historically these were areas of common pasturage, subsequently followed by late enclosure or parkland creation. More recently, they have been utilised for mineral extraction or the creation of golf courses.

The spatial relationship of this landscape to the adjacent valley floor means that change and development here can have a profound visual impact on the adjoining valley floor landscape type.

#### *Key Forces for Change*

- Expansion of settlements.
- Construction of large agricultural buildings.
- Expansion of garden curtilage.
- Change of land use, especially the creation of horse paddocks.
- Mineral extraction.
- Introduction of new agricultural techniques.
- Recreation pressure on the poorest land.

#### *Settlement form and expansion*

Valley side landscapes have historically been a focus for settlement. However, large-scale expansion should be confined to the adjacent plateau. In this location the landscape and visual impact can be more easily mitigated with effective planting and design.

#### *Change of land use to horse paddocks*

The proliferation of post and rail fencing and subdivision of land into small paddocks using temporary tape can have a significant negative landscape impact. In ecologically sensitive areas the impact on the quality and condition of grassland can be adverse. Mitigation strategies in terms of design, layout and stocking rates should be employed where possible.

It may be possible to screen the site with an effective and appropriate planting scheme. However, it may also be necessary to specify the type and extent of fencing to be used. On a sloping site post and rail or white tape can be particularly intrusive. If necessary, brown or green fencing tapes should be conditioned and planting should be required to soften the impact of the post and rail fencing. Furthermore, the location of field shelters and material storage areas should be specified, to minimise the landscape impact of these activities.

Opportunities should also be taken to design a field layout that is in keeping with the local field pattern or the historic pattern of boundaries.

#### *Visual impact of cropping and production, and land use changes*

The changes in cropping practices that have taken place in some parts of this landscape type, such as the use of fleece and plastic, as well as outdoor pig production, have had a significant visual effect on the landscape. The siting and style of structures subject to planning control, such as static feed bins for pigs, poly tunnels or reservoirs should be appropriately conditioned to minimise their landscape impact.

It is important that structures are located to make best use of existing hedges and trees both to screen the development and as a backdrop. Existing hedge lines should also be reinforced to improve the mitigation they provide. Finally, the use of reflective surfaces on feed bins should be avoided.

#### *Land Management Guidelines*

- Reinforce the historic pattern which is a mix of sinuous and regular hedge boundaries.
- Carry out coppice management of elm dominated hedgerows.
- Maintain and increase the stock of hedgerow trees.
- Maintain the area of woodland cover; siting of any new woodland should be based on information from the Historic Landscape Characterisation and in consultation with the Archaeological Service.
- Maintain a mosaic of bare ground and varying sward heights and scrub on the small heathland sites.