

Moors Fields, Fritch Green,
Dunmow

Ecological Appraisal

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Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Catesby Land and Planning Ltd in September 2020 to undertake an Ecological Appraisal in respect of proposed development of land at Flich Green, Dunmow, Essex.
- ii) **Proposals.** The proposals are for Outline planning application (with all matters reserved except for means of access from Station Road) for residential development of up to 180 dwellings, a countryside park, up to 100sqm of office hub floorspace, sustainable urban drainage system and associated infrastructure.
- iii) **Survey.** The site was surveyed in September 2020 based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats and Badger.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designation is Flich Way Local Nature Reserve (LNR), located adjacent the southern boundary of the site. The nearest non-statutory designation is Flich Way Local Wildlife Site (LWS), located at the same location as the Local Nature Reserve. With the exception of Flich Way Local Nature Reserve and Local Wildlife Site, all of the other ecological designations in the surrounding area are physically well separated from the site and are therefore unlikely to be adversely affected by the proposals. With regard to Flich Way LNR / LWS, proportionate safeguarding measures are recommended at Chapter 6 to ensure the full protection of these designations.
- v) **Habitats.** The site predominantly comprises arable with hedgerows bounding much of the boundary. An area of semi-improved grassland and dense scrub is present in the southwestern corner of the site as well as woodland edge habitat associated with the off-site designations mentioned above. Small areas of tall ruderal and hardstanding are also present, located at the northern and eastern boundaries. Features of ecological importance include hedgerows and woodland edge habitats. The hedgerows and habitats associated with and bordering Flich Way LNR / LWS are retained under the proposals and will be entirely safeguarded during construction. The remaining habitats within the site are not considered to form important ecological features and associated impacts under the proposals are of negligible ecological significance.
- vi) **Protected Species.** The site generally offers limited opportunities for protected species and no evidence of any such species was recorded during the survey work. However, it is likely that birds nest within suitable habitat at the site and could therefore potentially be adversely affected by the proposals. Appropriate mitigation measures, centred on the careful timing of works, will therefore be implemented to safeguard nesting birds during relevant site clearance works. Long-term nesting opportunities will be maintained, if not enhanced, under the proposals through new landscape planting and provision of nest boxes.
- vii) **Enhancements.** The proposals present the opportunity to secure a number of biodiversity net gains, including new species-rich grassland and aquatic habitat creation, additional native tree planting, new roosting opportunities for bats, and more diverse nesting habitats for birds.
- viii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm

1 Introduction

1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Catesby Land and Planning Ltd in September 2020 to undertake an Ecological Appraisal in respect of proposed development of land at Flitch Green, Dunmow, Essex, centred at grid reference SP 4597 4300 (see Plan 6047/ECO1), hereafter referred to as 'the site'.

1.1.2 Outline planning application (with all matters reserved except for means of access from Station Road) for residential development of up to 180 dwellings, a countryside park, up to 100sqm of office hub floorspace, sustainable urban drainage system and associated infrastructure.

1.2 Site Overview

1.2.1 The site is located to the north of Flitch Green, Dunmow, Essex within an urban edge context. The site is bound to the north by scrub, existing residential development and Station Road, beyond which lies further arable land. Station Road continues to bound the site to the east alongside further residential development, beyond which lies further arable. Flitch Way Local Nature Reserve (LNR) and Local Wildlife Site (LWS), comprising a disused railway, bounds the site to the south and to the west the site is bound by arable land, beyond which lies the village of Little Dunmow.

1.2.2 The site itself largely comprises arable, with an area of semi-improved grassland to the south-west of the site. Areas of ruderal and dense and scattered scrub are present within the site, in addition to dry and wet ditches in the southern part of the site. A number of hedgerows and woodland edge habitat is present at the boundaries of the site.

1.3 Purpose of the Report

1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are proposed so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

2 Methodology

2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings the Essex Wildlife Trust was contacted in February 2021, with data requested on the basis of a search radius of 2km.
- 2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced on Plan 6047/ECO2, where appropriate.
- 2.1.3 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

2.2 Habitat Survey

- 2.2.1 The site was surveyed in September 2020 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology¹, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal² to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

2.3 Faunal Surveys

- 2.3.1 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to bats, Badger and Great Crested Newt, as described below.

Bats³

Visual Inspection Surveys

¹ Joint Nature Conservation Committee (2010, as amended) *'Handbook for Phase 1 habitat survey: A technique for environmental audit.'*

² Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) *'Guidelines for Preliminary Ecological Appraisal.'*

³ Surveys based on: English Nature (2004) *'Bat Mitigation Guidelines'* and Collins, J. (ed.) (2016) *'Bat Surveys for Professional Ecologists: Good Practice Guidelines'* (3rd edn). Bat Conservation Trust

2.3.2 **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁴ as:

- Negligible;
- Low;
- Moderate; or
- High.

2.3.3 Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.

Badger (*Meles meles*)⁵

2.3.4 A detailed Badger survey was carried out in September 2020. The survey comprised two main elements. The first element involved searching for evidence of Badger setts. For any setts that were encountered, each sett entrance was noted and mapped. The following information was recorded:

- Number and location of well used / active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently;
- Number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance; and
- Number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.3.5 The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

Great Crested Newt (*Triturus cristatus*)

Habitat Suitability Index (HSI)

2.3.6 As a first step in identifying the potential presence of Great Crested Newt at the site, a Habitat Suitability Index (HSI) study was undertaken of all relevant water bodies within 250m⁶ of the site boundary (based on a review of Ordnance Survey mapping and satellite imagery). Guidance set out within Natural England's Method Statement template, to be used when applying for a Great Crested Newt development licence, states that surveys of ponds within 500m of the site boundary are only required when '(a) data indicates that the pond(s) has potential to support a large Great Crested Newt population, (b) the footprint contains particularly favourable habitat, (c) the development would have a substantial negative effect on that habitat and (d) there is an absence of dispersal barriers.' Given that in this instance, none of the four points listed above are applicable to the site, it is

⁴ Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

⁵ Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'

⁶ 250m is the typical maximum migratory range of this species, see English Nature (2004) 'An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*'. English Nature Research Report 576

considered that survey of ponds within 500m of the site boundary is not required, and that survey of ponds within 250m represents adequate survey effort.

2.3.7 An HSI study is used to assess the potential of water bodies to support Great Crested Newt. It is undertaken by attributing a score to a number of factors that can affect the presence or absence of this species. Ten factors are utilised in an HSI assessment, as described below:

- *SI1 Location*. The location of the water body within Great Britain;
- *SI2 Pond area*. The size of the water body;
- *SI3 Permanence*. How often the water body dries out;
- *SI4 Water Quality*. The water quality, based primarily on invertebrate diversity;
- *SI5 Shade*. The percentage of the perimeter of the water body that is shaded;
- *SI6 Fowl*. The presence or absence of water fowl;
- *SI7 Fish*. The presence or absence of fish;
- *SI8 Pond Count*. The number of water bodies within 1km of the surveyed water body (not counting those on the far side of major barriers such as roads);
- *SI9 Terrestrial*. The quality of terrestrial habitat surrounding the water body; and
- *SI10 Macrophytes*. The percentage cover of the surface area of the water body covered by macrophytes (aquatic plants).

2.3.8 The overall suitability of the water body is then determined by entering these figures into an equation devised by Oldham et al. (2000)⁷. The suitability of water bodies is classed into one of five categories, either 'poor', 'below average', 'average', 'good' or 'excellent'.

2.3.9 This HSI study was undertaken in line with the guidelines developed by Oldham et al. and subsequently adapted by ARG UK (2010)⁸. A suitably experienced ecologist undertook the assessment in line with these guidelines, with the study also supplemented by desktop research where appropriate.

2.4 Survey Constraints and Limitations

2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken within the optimal season therefore allowing a robust assessment of habitats and botanical interest across the site.

2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.4.3 Densely vegetated habitats within the site have the potential to reduce the detectability of field signs for faunal species such as Badger. A detailed survey was able to be completed and, whilst dense scrub vegetation is present within the site, it is considered that the survey

⁷ Oldham RS, Keeble J, Swan MJS & Jeffcote M (2000) 'Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*)'. Herpetological Journal 10 (4), 143-155

⁸ Amphibian & Reptile Groups of the UK (2010) 'ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index'

results do provide an accurate baseline to assess the potential for impacts on Badger under the development proposals.

2.5 Ecological Evaluation Methodology

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)⁹, which involves identifying ‘important ecological features’ within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 6047/1.

2.6 National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)¹⁰ describes the Government’s national policies on ‘conserving and enhancing the natural environment’ (Chapter 15). NPPF is accompanied by Planning Practice Guidance on ‘Biodiversity, ecosystems and green infrastructure’ and ODPM Circular 06/2005¹¹.

2.6.2 NPPF takes forward the Government’s strategic objective to halt overall biodiversity loss¹², as set out at Paragraph 174, which states that planning policies and decisions should contribute to and enhance the natural and local environment by:

‘minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures’

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 180:

‘When determining planning applications, local planning authorities should apply the following principles:

- a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless*

⁹ CIEEM (2018) ‘Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine’, ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

¹⁰ Ministry of Housing, Communities & Local Government (2019) ‘National Planning Policy Framework’

¹¹ ODPM (2006) ‘Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice’

¹² DEFRA (2011) ‘Biodiversity 2020: A strategy for England’s wildlife and ecosystem services’

there are wholly exceptional reasons and a suitable compensation strategy exists; and

- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019¹³, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

2.7 Local Policy

2.7.1 Planning policy at the local level is set out in Uttlesford District Council's Local Plan entitled 'Uttlesford Local Plan (Adopted January 2005)'. Policies relevant to ecology and biodiversity at the site at Flich Green are set out below.

2.7.2 '**Policy GEN7 - Nature Conservation**' – relates to protected species and habitats and states:

'Development that would have a harmful effect on wildlife or geological features will not be permitted unless the need for the development outweighs the importance of the feature to nature conservation. Where the site includes protected species or habitats suitable for protected species, a nature conservation survey will be required. Measures to mitigate and/or compensate for the potential impacts of development, secured by planning obligation or condition, will be required. The enhancement of biodiversity through the creation of appropriate new habitats will be sought.'

2.7.3 '**Policy ENV3 – Open Spaces and Trees**' – relates to open spaces and trees and states:

'The loss of traditional open spaces, other visually important spaces, groups of trees and fine individual tree specimens through development proposals will not be permitted unless the need for the development outweighs their amenity value.'

2.7.4 '**Policy ENV7 – The Protection of the Natural Environment - Designated Sites**' – relates to statutory and non-statutory designated sites and states:

¹³ British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

'Development proposals that adversely affect areas of nationally important nature conservation concern, such as Sites of Special Scientific Interest and National Nature Reserves, will not be permitted unless the need for the development outweighs the particular importance of the nature conservation value of site or reserve. Development proposals likely to affect local areas of nature conservation significance, such as County Wildlife sites, ancient woodlands, wildlife habitats, sites of ecological interest and Regionally Important Geological/ Geomorphological Sites, will not be permitted unless the need for the development outweighs the local significance of the site to the biodiversity of the District. Where development is permitted the authority will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's conservation interest.'

'Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation' – relates to development that may adversely affect other landscape elements and states:

'Development that may adversely affect these landscape elements:

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

will only be permitted if the following criteria apply:

a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora;

b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value of the locality.

Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.'

2.7.5 Uttlesford District Council updated their Climate Change policy in 2021, within this **'Interim Policy 6 and 7'** relate to ecology and state:

'Developers should demonstrate how their proposals prioritise the natural environment and how through the design, planning and delivery would result in a biodiversity net gain and enhances multifunctionality and multiple benefits for people, wildlife and habitats.'

'Developers should demonstrate how the level of tree and/or hedgerow planting that has been proposed is sufficient to i) contribute towards reducing the impact of the proposals on

the environment, and ii) improve living conditions for residents, workers and those using any public areas.'

3 Ecological Designations

3.1 Statutory Designations

Description

- 3.1.1 The statutory designations of ecological importance that occur within the local area are shown on Plan 6047/ECO2. The nearest statutory designation is Flich Way Local Nature Reserve (LNR) located adjacent to the southern boundary of the site. Flich Way LNR comprises a disused railway line, which is managed as a bridleway / cycle path and is understood to support one of the largest woodland / scrub / grassland habitats of high nature conservation value in the district. The LNR was designated in October 2019 on the basis of it acting as a valuable wildlife corridor as well as providing important habitats in its own right. The next nearest statutory designation is Garnetts Wood / Barnston Lays Site of Special Scientific Interest (SSSI) located approximately 3.3km to the southwest of the site. Garnetts Wood / Barnston Lays SSSI is designated for its mostly ancient woodland containing one of the best examples of lime woodland in Essex.
- 3.1.2 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. The site sits within an IRZ in relation to Garnetts Wood / Barnston Lays SSSI, the IRZ guidance states where residential development of 50 units or more is proposed the LPA should consult Natural England.

Evaluation

- 3.1.3 The site is physically well separated from all nearby SSSIs, albeit there is slight potential for increased recreational use of Garnetts Wood / Barnston Lays SSSI as a result of the proposals. However, as the SSSI is physically well separated from the site by areas of existing development and arable land and not directly linked through public rights of way, a significant increase in use is not predicted. The SSSI is actively managed by Uttlesford District Council for public recreation and visitors are encouraged to use existing footpaths within the woodland, and as such the increased use will not have an impact on the wildlife and habitats present. Overall, despite the development comprising more than the 50 units stated in the IRZ, the proposed development is not expected to have adverse impacts on the qualifying features of Garnetts Wood / Barnston Lays SSSI during or post-construction.
- 3.1.4 The site itself is not subject to any statutory ecological designations. The adjacent Flich Green LNR would be entirely retained, buffered and safeguarded under the proposals, as such no adverse impacts are envisaged during construction. Post-construction, the slight potential increase in visitors is unlikely to adversely affect the LNR, which is actively managed to encourage public recreational use. As such, measures and management practices already in place are considered to be sufficient to deal with the potential increase in recreational users. Similarly to Garnetts Wood / Barnston Lays SSSI, visitors are actively encouraged to use footpaths available and the increased recreational use is not likely to impact the qualifying features of the LNR.
- 3.1.5 All other statutory ecological designations in the surrounding area are physically well separated from the site by existing development and given the nature and scale of the proposals, these designations are unlikely to be affected.

3.2 Non-statutory Designations

Description

- 3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 6047/ECO2. The nearest non-statutory designation is Flitch Way Local Wildlife Site (LWS) located adjacent the southern boundary of the site. As identified above, the LWS is designated on the basis of the disused railway acting as a valuable wildlife corridor throughout the south of the district, as well as providing a good series of habitats in its own right (see Appendix 6047/3 for citation). The next nearest non-statutory designation is Felsted Fen LWS located approximately 1.1km to the south of the site.

Evaluation

- 3.2.2 The site itself is not subject to any non-statutory nature conservation designations. As above, with the exception of Flitch Way LWS, all non-statutory designations in the surrounding area are well separated from the site by existing development and given the nature and scale of the proposals, these designations are unlikely to be affected. With regard to Flitch Way LWS, proportionate safeguarding recommendations are provided in Chapter 6, to ensure the LNR is not adversely affect during or after construction.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

Description

- 3.3.1 There are no records of any notable or veteran trees within or adjacent to the site. The site contains a small area of woodland that is identified with 'low confidence' on the MAGIC database possibly comprising the Priority Habitat 'Deciduous Woodland'. This location coincides with an area of dense scrub within the site, and as such it considered to have been erroneously mapped, and indeed the low confidence in accuracy reported on the MAGIC database is considered to support this assessment. This is discussed further within the relevant habitat section in Chapter 4 below.

Evaluation

- 3.3.2 Subject to the implementation of appropriate mitigation measures (as discussed below in Chapter 4) it is unlikely that any Priority Habitats or any notable or veteran trees will be significantly affected by the proposals.

3.4 Summary

- 3.4.1 In summary, the site itself is not subject to any statutory or non-statutory ecological designations and, subject to the implementation of appropriate mitigation measures (as described above), it is unlikely that any such designations in the surrounding area will be significantly affected by the proposals.

4 Habitats and Ecological Features

4.1 Background Records

4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from the Records Centre. Two records of the Priority Species Bluebell *Hyacinthoides non-scripta* were returned from Essex Wildlife Trust, dating from 2007 and 2018, located approximately 1.5km west of the site. No evidence for the presence of this species within the site was recorded during the survey work undertaken.

4.2 Overview

4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.

4.2.2 The following habitats and ecological features were identified within/adjacent to the site:

- Arable;
- Species-poor Semi-improved Grassland;
- Hedgerows;
- Trees;
- Tall Ruderal;
- Scrub;
- Ditches; and
- Woodland Edge.

4.2.3 The locations of these habitat types and features are illustrated on Plan 6047/ECO3 and described in detail below.

4.3 Priority Habitats

4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as Priority Habitats under the subsequent country-level biodiversity strategies.

4.3.2 Of the habitats within the site, hedgerows are considered to qualify as Priority Habitats and therefore constitute important ecological features. This is discussed further in the relevant habitat sections below.

4.4 Arable

Description

4.4.1 The site is dominated by a single arable field with uncultivated field margins of varying width, as shown on Plan 6047/ECO3 and described below.

4.4.2 The arable was recorded to be under active production at the time of the survey, comprising a cereal crop, and is likely to receive regular fertiliser / herbicide inputs. At the time of the survey, the arable has been recently managed by harrowing. Species present within the sward of the unmanaged field margins include Yarrow *Achillea millefolium*, occasional Common Knapweed *Centaurea nigra*, Oak *Quercus* sp. saplings, Perennial Rye-grass *Lolium perenne*, Hogweed *Heracleum sphondylium*, Dandelion *Taraxacum officinale*, Groundsel *Senecio vulgaris*, Cow Parsley *Anthriscus sylvestris*, Common Nettle *Urtica dioica*, Common Mallow *Malva sylvestris*, Dove's-foot Crane's-bill *Geranium molle*, Common Couch *Elytrigia repens*, Smooth Sow-thistle *Sonchus oleraceus*, Knotgrass *Polygonum aviculare*, Periwinkle *Vinca* sp., Broad-leaved Dock *Rumex obtusifolius*, Ribwort Plantain *Plantago lanceolata*, Scarlet Pimpernel *Anagallis arvensis*, Shepherd's-purse *Capsella bursa-pastoris*, Germander Speedwell *Veronica chamaedrys* and encroaching Blackthorn *Prunus spinosa*.

Evaluation

4.4.3 Overall, the arable and therefore majority of the site comprises a monoculture crop with associated field margins that were recorded to support a moderate diversity of common and widespread species. As such, the arable field and its associated margin does not represent an important ecological feature and the loss of this habitat to the proposals is therefore of minor ecological significance.

4.5 Species-poor Semi-improved Grassland

Description

4.5.1 A small area of semi-improved grassland is present within south-eastern part of the site, as shown on Plan 6047/ECO3, and described below.

4.5.2 The grassland was recorded to be 40-60cm in height at the time of the survey and appeared to have not been subject to any recent management. The sward is dominated by coarse grasses, including False Oat-grass *Arrhenatherum elatius*, Cock's-foot *Dactylis polygama* and Common Couch. Other species present within the grassland sward include Prickly Sow-thistle *Sonchus asper*, Hogweed, Broad-leaved Dock, Common Bent *Agrostis capillaris*, Field Horsetail *Equisetum arvense*, Common Evening-primrose *Oenothera biennis*, Creeping Bent *Agrostis stolonifera*, Wild Carrot *Daucus carota*, Spear Thistle *Cirsium vulgare*, Tufted Hair-grass *Deschampsia cespitosa*, Ribwort Plantain, Lesser Centaury *Centaureum pulchellum*, Selfheal *Prunella vulgaris*, Creeping Buttercup *Ranunculus repens*, Germander Speedwell, Autumn Hawkbit *Leontodon autumnalis*, Dandelion, Crested Dog's-tail *Cynosurus cristatus*, Red Bartsia *Odontites vernus*, Hard Rush *Juncus inflexus*, Common Knotweed, Agrimony *Agrimonia eupatoria*, and Creeping Cinquefoil *Potentilla reptans*.

Evaluation

4.5.3 Overall, the grassland supports a relatively low diversity of common and widespread species and based on the type and abundance of species present it can be classified as semi-

improved grassland¹⁴. A number of indicator species of higher quality grassland are present, however these are not sufficiently abundant for the grassland to qualify as a Priority Habitat. Semi-improved grassland is not uncommon in the local area and higher quality areas of grassland are present in the surrounding area. As such, the grassland does not constitute an important ecological feature. This habitat is however to be retained and enhanced under the proposals, to deliver increased opportunity for wildlife and increase biodiversity within the site, as discussed at Chapter 6 below.

4.6 Hedgerows

Description

4.6.1 Six hedgerows are present within the site, associated with the site boundaries. The hedgerows are described in more detail in Table 4.1 below.

Table 4.1. Hedgerow descriptions.

No.	H	W	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify#
H1	1-2m	1-2m	<u>Blackthorn</u> , <u>Dog-rose</u> <i>Rosa canina</i>	≤2	Species associated with adjacent arable field margins	<10% gaps	Recent box-cut management	N
H2	2-4m	1-2m	<u>Hawthorn</u> <i>Crataegus monogyna</i> , <u>Blackthorn</u>	≤2	Periwinkle and species associated with adjacent arable field margins	<10% gaps	Relatively recent management on interior face	N
H3	6-8m	2-4m	Bramble <i>Rubus fruticosus</i> , <u>Blackthorn</u> , <u>Dog-rose</u> , <i>Prunus</i> sp., <u>Dogwood</u> <i>Cornus sanguinea</i> , <u>Hawthorn</u> , <u>Oak</u> , <i>Malus</i> sp., <u>Poplar</u> <i>Populus</i> sp.	≥5	Species associated with adjacent arable field margins	<10% gaps	Relatively recent management on interior face	Y
H4	6-8m	2-4m	Bramble, <u>Blackthorn</u> , <u>Dog-rose</u> , <i>Prunus</i> sp., <u>Dogwood</u> , <u>Hawthorn</u> , <u>Oak</u> , <i>Malus</i> sp., <u>Poplar</u> sp.	≥5	Species associated with adjacent arable field margins	<10% gaps	Relatively recent management on interior face	Y
H5	6-8m	2-4m	<u>Hawthorn</u> , <u>Blackthorn</u> , Bramble, <u>Dog-rose</u> , Ivy <i>Hedera helix</i> , <u>Hornbeam</u> <i>Carpinus betulus</i> , <u>Wild Cherry</u> <i>Prunus avium</i> , <u>Elm</u> <i>Ulmus</i> sp., <u>Field Maple</u> <i>Acer campestre</i> , Leyland Cypress <i>Cupressus macrocarpa</i> x <i>Chamaecyparis nootkatensis</i> (D at southern end)	≥5	Species associated with adjacent arable field margins	<10% gaps	Relatively recent management on all faces	Y

¹⁴ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

No.	H	W	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify#
H6	10-12m	1-2m	<u>Hawthorn, Oak, Ash, Field Maple</u>	≥4	Species associated with adjacent arable field margins	<10% gaps, dry ditch at base	Managed by flail on interior face	N

Woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) and woodland ground flora species (as listed under Schedule 2 of the Hedgerows Regulations 1997) underlined, y = young, sm = semi-mature, m = mature, pv = possible veteran, B = bank, W = wall, br = bridleway, f/p = footpath, b/w = byway, (D) = dominant species

* estimated average number of woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) in any one 30m stretch

likely to qualify – as 'important' under the wildlife and landscape criteria of the Hedgerows Regulations 1997

Evaluation

4.6.2 The majority of hedgerows recorded within the site are relatively substantial and outgrown in nature and contain a number of standard trees. From a preliminary appraisal, hedgerows **H3 - H5** is considered to be species-rich¹⁵ and is likely to qualify as ecologically 'important' under the Hedgerows Regulations 1997, based on the number of woody species and associated features. Hedgerows **H1, H2, and H6** are unlikely to qualify as important under the Regulations.

4.6.3 All of the hedgerows within the site are likely to qualify as a Priority Habitat based on the standard definition¹⁶, which includes all hedgerows (>20m long and <5m wide) consisting predominantly (≥80%) of at least one native woody species. It has been estimated that approximately 84% of countryside hedgerows in GB qualify as a Priority Habitat under this definition.¹⁶

4.6.4 On this basis, the hedgerows within the site constitute important ecological features, although given the relatively limited network present, are only of importance at the local level.

4.6.5 The proposals incorporate the retention of all the hedgerows within the site. Retained hedgerows will be protected during the construction phase of the proposals as per the recommendations included at Chapter 6 below. Furthermore, the proposals incorporate considerable areas of new planting which will link with and strengthen the existing / retained hedgerows, and aim to enhance the value of these features for biodiversity.

4.7 Trees

Description

4.7.1 A number of trees were recorded within the site, largely in association with the hedgerows. Standard trees within the hedgerows were noted to range from semi-mature to mature in age.

Evaluation

4.7.2 A number of the trees within hedgerows are mature in nature, and a number of these are likely to be of considerable age. Accordingly, the more mature trees recorded within the

¹⁵ i.e. five or more native woody species within a 30m length (or four or more in Northern England) – FEP Manual

¹⁶ Based on: Biodiversity Reporting and Information Group (2011) 'UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions', ed. Ant Maddock

hedgerows are of ecological interest in their own right, albeit at present do not constitute important ecological features.

4.7.3 Other trees located outside the hedgerows are relatively small in size being young to semi-mature in nature such that they are currently of limited ecological interest and are also not considered to form important ecological features.

4.7.4 It is understood that the trees within the site and adjacent to its boundaries are fully retained under the proposals and as such, subject to recommended safeguards set out at Chapter 6 below, the trees within the site will be retained and protected under the proposals, whilst new planting will combine with the existing trees to provide new opportunities for wildlife.

4.8 Tall Ruderal

Description

4.8.1 Small areas of ruderal are present within the site, as shown on Plan 6047/ECO3. The tall ruderal was recorded at the time of the survey to be 30-50cm in height and was dominated by Cow Parsley *Anthriscus sylvestris*, Prickly Sow Thistle, Common Nettle, Common Couch, Mugwort *Artemisia vulgaris*, Common Mallow, Lesser Burdock *Arctium minus*, White Dead-nettle *Lamium album* and encroaching Bramble.

Evaluation

4.8.2 The tall ruderal is limited in its extent within the site and comprises botanical species which are common and widespread within the local and national context, and therefore does not constitute an important ecological feature and its removal under the proposals is of negligible ecological significance.

4.9 Scrub

Description

4.9.1 Areas of scattered and dense scrub are present throughout the site, as shown on Plan 6047/ECO3. The scattered scrub largely comprises Hawthorn, Cherry Laurel, Ash, Dogwood and Prunus sp., and is largely associated with the arable field margins and the area of grassland at the south-west of the site. A single area of dense scrub is located at the south of the site, adjacent to the area of grassland. The dense scrub habitat largely comprises Blackthorn and Bramble, with Willow *Salix* sp. Dominant and Elder *Sambucus nigra* also present.

Evaluation

4.9.2 The scrub habitat comprises botanical species which are common and widespread within the local and national context, and therefore does not constitute important ecological features. The overwhelming majority of scrub habitats within the site are to be retained under the proposals, with new planting proposed to increase the biodiversity and extent of this habitat within the site. The potential for this habitat to support protected faunal species, such as nesting birds, is discussed in Chapter 5 below.

4.10 Ditches

Description

4.10.1 A dry ditch is present along the southern and southwestern boundaries of the site, as shown on Plan 6047/ECO3. The ditch was recorded to be up to 1m in depth and 1-2m in width. Species present within the ditch comprise those in association with the adjacent arable field margin.

4.10.2 A wet ditch is also present at the south-west of the site, which runs from north to south through the area of dense scrub. The ditch was recorded to be shallow, at 0.5m in depth and 1m in width, and at the time of the survey had up to 5cm of water present. The ditch base comprises silt substrate and is overgrown with Willow sp. scrub. Marginal botanical species present include Ivy, Bramble, Pendulous Sedge *Carex pendula* and Common Nettle.

Evaluation

4.10.3 The ditches comprise botanical species which are common and widespread within the local and national context, and therefore does not constitute important ecological features. Nonetheless they are likely to perform a drainage function and are proposed to be retained and enhanced under the proposals.

4.11 Woodland Edge

Description

4.11.1 Woodland edge habitat abuts the south-western boundary of the site, shown on plan 6047/ECO3, associated with the off-site designations. Species present within this habitat includes *Prunus* sp., Elder, Hawthorn, Willow and Hedge Bindweed *Calystegia sepium*.

Evaluation

4.11.2 The woodland edge habitat comprises botanical species which are common and widespread within the local and national context, and in isolation would not constitute an important ecological feature. However, as discussed above in Chapter 3, this habitat forms part of statutory and non-statutory designations and therefore constitutes an important ecological feature. This habitat is fully retained, buffered and safeguarded under the proposals. The potential for this habitat to support protected faunal species, such as nesting birds, is discussed in Chapter 5 below.

4.12 Habitat Evaluation Summary

4.12.1 On the basis of the above, the following habitats within and adjacent to the site are considered to form important ecological features:

Table 4.2. Evaluation summary of habitats forming important ecological features.

Habitat	Level of Importance
Hedgerows	Local
Woodland Edge	Local

4.12.2 Other habitats present within the site include arable, species-poor semi-improved grassland, trees, ruderal, scrub, and ditches. However, these habitats do not form important ecological features.

5 Faunal Use of the Site

5.1 Overview

5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of Badgers and bats, with the results described below.

5.2 Priority Species

5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as Priority Species under the subsequent country-level biodiversity strategies.

5.2.2 During the survey work undertaken, no Priority Species were recorded within the site.

5.3 Bats

5.3.1 **Legislation.** All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 6047/2 for detailed provisions). If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.

5.3.2 **Background Records.** No specific records of bats from within or adjacent the site were returned from the desktop study. Information received from the LRC returned records of Brown Long-eared Bat *Plecotus auratus*, Long-eared Bat species *Plecotus* sp., Natterer's Bat *Myotis nattereri*, Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus* within 3km of the site. The closest record is for a roost of an unnamed bat species, recorded in 2016, located approximately 0.4km west of the site boundary.

5.3.3 Survey Results

Visual Inspection Surveys

Trees

5.3.4 A number of semi-mature and mature trees are present on site. The results of the tree assessment work undertaken at the site are illustrated on Plan 6047/ECO3 and summarised in Table 5.1 below:

Table 5.1. Tree inspection results.

Tree No.	Species	Age	Potential Roost Features	Suitability
T1	Oak	Dead	Open and upward faces rot holes	Low

5.3.5 Evaluation and Assessment of Likely Effects

Roosting

Trees

- 5.3.6 It is understood that all trees within the site, including **T1** described above with potential bat roost features, are to be retained under the proposals, such that in the event that bats are present within the trees they will remain unaffected. As such, subject to the implementation of the recommendation outlined at Chapter 6 below in relation lighting, it is considered that bats will be fully safeguarded under the proposals.

Foraging / Commuting

- 5.3.7 The overwhelming majority of the site comprises intensively managed arable habitats and as such, is considered not to represent a particular resource to foraging and commuting bats. That said, habitats outside the proposed development area, including species-poor semi-improved grassland, woodland edge, hedgerows and scrub within the site offer foraging/commuting habitat for bats, which would all be retained safeguarded and enhanced under the proposals.
- 5.3.8 Trees, hedgerows, grassland, woodland edge and scrub within the site will be retained under the proposals, whilst extensive new grassland habitat creation tree, hedgerow and shrub planting will improve connectivity through the site and increase the foraging potential of the site. The adjacent Fritch Way LNR / LWS, which is likely to represent an important bat commuting route, would be fully safeguarded through implementation of the protection measures set out in Chapter 6 below.
- 5.3.9 Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below, along with other ecological enhancements, it is considered that the conservation status of local bat populations will be fully safeguarded under the scheme.

5.4 Badger

- 5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 6047/2 for detailed provisions), and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.
- 5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance.^{17, 18}

¹⁷ English Nature (2002) 'Badgers and Development'

¹⁸ Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

5.4.3 Background Records.

No specific background records of Badger from within or adjacent to the site were returned from the desktop study. Information received from the LRC returned records of Badger within 3km of the site, with the closest record approximately 0.5km west of the site boundary in 2018.

5.4.4 **Survey Results and Evaluation.** No evidence of any Badger setts, or Badger foraging / commuting behaviour was recorded within the site during the specific Badger survey, having paid particular attention to the hedgerows and areas of dense scrub. As such, it is unlikely that Badger rely on the site. Nonetheless, precautionary measures are outlined in Chapter 6, to ensure that Badgers are fully safeguarded should they enter the site during construction.

5.5 Dormouse

5.5.1 **Legislation:** Dormouse is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Appendix 6047/2 for detailed provisions). Dormouse is also a S41 Priority Species. On this basis, Dormouse is considered to form an important ecological feature.

5.5.2 **Background Records:** No specific records of Dormouse were returned from the desktop study or the LRC from within or surrounding the study area.

5.5.3 **Survey Results and Evaluation.** The site provides opportunities for Dormouse in the form of hedgerows and the woodland edge, which are connected to off-site woodlands and other habitats capable of sustaining Dormouse populations, albeit the site is dominated by open arable fields which are unsuitable for Dormouse. The areas of woodland and hedgerows are to be retained and enhanced under the proposals, and as such, it is considered that Dormouse, if present, will remain unaffected and no specific survey work was undertaken for this species. On the contrary, the proposals seek to enhance the existing hedgerow and woodland edge habitats through the incorporation of new planting and effective management, as detailed below in Chapter 6, such that the site will provide greater opportunities for this species under the proposals.

5.6 Water Vole

5.6.1 **Legislation.** Water Vole is fully protected under the Wildlife and Countryside Act 1981 (as amended). Water Vole is also a S41 Priority Species. As such, this species is considered to represent an important ecological feature. The legislation affords protection to individuals of the species and their breeding sites and places of shelter (see Appendix 6047/2 for detailed provisions). There is no provision under the Act for licensing what would otherwise be offences for the purpose of development. Such activities must be covered by the defence in the Act that permits otherwise illegal actions if they are the incidental result of a lawful operation and could not reasonably be avoided.

5.6.2 If, despite all reasonable efforts, properly authorised development will adversely affect Water Vole and there are no alternative habitats nearby, Natural England may issue a licence to trap and translocate Water Vole for the purpose of conservation. To issue such a licence, Natural England would need to be assured there is no reasonable alternative to the development and that there are no other practical solutions that would allow Water Vole

to be retained at the same location. NE would also require assurance that the actions would make a positive contribution to Water Vole conservation.

5.6.3 **Background Records.** No specific records of Water Vole within or surrounding the site were returned from the desktop study or received from the LRC data search.

5.6.4 **Survey Results and Evaluation.** The habitats within the site itself are generally unsuitable for Water Vole, mostly comprising arable, with on-sites comprises sub-optimal habitat, with no evidence of Water Voles identified during the survey work undertaken. As Water Vole is considered to be likely absent from the site, it is not considered to be of importance for this species.

5.7 Otter

5.7.1 **Legislation.** Otter is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Appendix 6047/2 for detailed provisions). Otter is also a S41 Priority Species. On this basis, Otter is considered to represent an important ecological feature.

5.7.2 **Background Records.** No specific records of Otter within or adjacent to the site were returned from the desktop study. A number of records of Otter were returned from the surrounding search area, with the closest specific record of this species located approximately 0.7km south of the site in 2011.

5.7.3 **Survey Results and Evaluation.** The habitats within the site itself are generally unsuitable for Otter, mostly comprising arable and all records returned from the LRC are physically well separated from the site. As Otter is considered to be likely absent from the site, it is not considered to be of importance for this species.

5.8 Other Mammals

5.8.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.

5.8.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Hedgehog *Erinaceus europaeus* (Priority Species) was returned within 3km of the site, with the closest record 0.3km from the southern boundary in 2017.

5.8.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. Other mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context. As such, these species are not a material planning consideration and the loss of potential opportunities for these species to the proposals is of negligible significance.

5.8.4 The desktop study returned background records of Hedgehog within the surrounding area. Hedgehog is a Priority Species, albeit this species remains common and widespread in England. The site offers potential opportunities for this species, particularly in the form of

areas of denser scrub, semi-improved grassland and woodland edge / hedgerows towards the southwest of the site. Furthermore, the majority of these habitats are to be retained under the proposals. In any event, abundant similar opportunities are present within the local area and there is no evidence to suggest the proposals will significantly affect local populations of this species. However, it is recommended that precautionary safeguards are put in place to minimise the risk of harm to Hedgehog in the event this species is present, as detailed in Chapter 6 below.

5.9 Amphibians

5.9.1 Legislation. All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 6047/2 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

5.9.2 Background Records. No specific records of Great Crested Newt from within the site or in the surrounding area were returned from the desktop study or the LRC.

5.9.3 Survey Results. Two ponds have been identified within proximity of the site, approximately 30m and 75m south of the site. Access was attempted during the Phase 1 survey to undertake a Habitat Suitability Index (HSI) assessment, however this was denied by the occupying tenant.

5.9.4 Evaluation and Assessment of Likely Effects. From a review of aerial imagery and the MAGIC database these ponds appear to be of ornamental nature surrounded by managed amenity planting. As such, even on a precautionary basis, the likelihood of Great Crested Newt being present is considered to be acceptably low. Furthermore, under the proposals there will be a buffer of approximately 200m between the closest pond and the nearest construction activities, with high-quality diverse habitat creation proposed for this intervening area. The absence of suitable water bodies present within and surrounding the site, coupled with no records of the species returned from the data search carried out by Essex Wildlife Trust, suggests the likelihood of Great Crested Newt presence within and around the site is acceptably low. Nonetheless, given the presence of suitable terrestrial habitat recorded on and adjacent the site it is possible GCN could utilise the southwest corner outside of the breeding season. This area of suitable habitat will be retained entirely and enhanced under the proposals and as such, Great Crested Newt is not to present a planning constraint for the site.

5.10 Reptiles

5.10.1 Legislation. All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6047/2 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

5.10.2 Background Records. Information returned from Essex Wildlife Trust returned no records for any of the reptile species found in the UK.

- 5.10.3 **Survey Results and Evaluation.** The majority of the site comprises arable which is considered unsuitable for reptiles. Nonetheless, habitats within the site, namely the area of species-poor semi-improved grassland, arable field margins and hedgerows, afford some potential refuge opportunities. The proposals seek to retain and enhance the hedgerows, and enhance the area of semi-improved grassland, such that the site will provide greater long-term opportunities for reptiles under the proposals.
- 5.10.4 It is recommended that a number of mitigation measures be implemented at the site, as set out in Chapter 6 below, to ensure that reptiles will be fully safeguarded throughout all phases of the development. On this basis, it is considered that reptiles will remain unaffected by the proposed development, and it is considered likely that the local conservation status of reptiles will be maintained and enhanced post-development.

5.11 Birds

- 5.11.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 6047/2 for detailed provisions).
- 5.11.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status¹⁹. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.
- 5.11.3 **Background Records.** Information from the data search included records for several bird species in the vicinity of the site, although none of which are Priority Species and only Red Kite *Milvus milvus*, recorded 1.5km northeast of the site, is included on a European protected species list. Furthermore, none of the records originate from within the site itself.
- 5.11.4 **Survey Results.** A number of species of bird were observed within the site during the Phase 1 survey, including Wood Pigeon *Columba palumbus* and Woodpecker holes were recorded in tree T1.
- 5.11.5 **Evaluation.** None of the birds recorded at the site are listed as having any special conservation status. The proposals will result in the loss of small sections of hedgerow to facilitate site access and this could potentially affect any nesting birds that may be present at the time of works. Accordingly, a number of safeguards in respect of nesting birds are proposed, as detailed in Chapter 6 below. In the long-term, new nesting opportunities will be available for birds as described in Chapter 6 below.

5.12 Invertebrates

- 5.12.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus*

¹⁹ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man' British Birds 108, pp.708-746

vorticulus receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6047/2 for detailed provisions. A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

5.12.2 Background Records. No specific records of invertebrates were returned from within or adjacent to the site. A single record of Stag Beetle *Lucanus cervus* (Priority Species) was returned from Essex Wildlife Trust's data search, with the record located approximately 0.9km west of the site in 2018.

5.12.3 Survey Results and Evaluation. No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by arable, which is likely to support only a limited diversity of invertebrates. The site has several areas of bare ground and occasional patches of scrub but otherwise contains relatively few micro-habitats that would typically indicate elevated potential for invertebrates²⁰, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations, and the site is not considered to support an important invertebrate assemblage.

5.13 Summary

5.13.1 On the basis of the above, a summary of the evaluation of fauna is provided below:

Table 5.1. Evaluation summary of fauna forming important ecological features.

Species / Group	Supported by or associated with the site	Level of Importance
Bats – Roosting	Potential habitat in the form of trees	Local
Bats – Foraging / Commuting	Potential habitat in the form of hedgerows, woodland edge and scrub	Local
Badger	Potential habitat in the form of hedgerows	Local
Dormouse	Likely absent (although potential habitat present)	Negligible
Otter	Sup-optimal habitat present	Negligible
Water Vole	Sup-optimal habitat present	Negligible
Great Crested Newt	Potential habitat in the form of off-site ponds	Negligible
Reptiles	Potential habitat in form of grassland and field margins	Local
Birds	Confirmed presence on site	Local

5.13.2 Other fauna supported by the site include non-priority species of mammals. However, these species do not form important ecological features.

²⁰ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

6 Mitigation Measures and Biodiversity Net Gains

6.1 Mitigation

6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, it is proposed that the following mitigation measures (**MM1 – 9**) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2019).

Hedgerows and Trees

6.1.2 **MM1 – Hedgerow and Tree Protection.** All hedgerows and trees to be retained within the proposed development shall be protected during construction in line with standard arboriculturalist best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This will involve the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees / hedgerows.

Watercourses

6.1.3 **MM2 – Pollution Prevention.** In order to safeguard the wet ditch at the south-west and dry ditch to the south and south-west of the site, and adjacent designations, against any potential run-off or pollution events during construction, the following safeguards will be implemented:

- Storage areas for chemicals, fuels, etc. will be sited well away from the watercourses and southern boundary (minimum 10m), and stored on an impervious base within an oil-tight bund with no drainage outlet. Spill kits with sand, earth or commercial products approved for the stored materials shall be kept close to storage areas for use in case of spillages;
- Where possible, and with prior agreement of the sewage undertaker, silty water should be disposed of to the foul sewer or via another suitable form of disposal, e.g. tanker off-site;
- Water washing of vehicles, particularly those carrying fresh concrete and cement, mixing plant, etc. will be carried out in a contained area as far from the watercourses and southern boundary as practicable (minimum 10m), to avoid contamination; and
- Refuelling of plant will take place in a designated area, on an impermeable surface, away from the watercourses and southern boundary (minimum 10m).

6.1.4 Post-development, the drainage system for the development will ensure the watercourses and southern boundary are not subject to adverse changes in surface water run-off or quality. On the contrary, the removal of agricultural run-off from the land will likely be beneficial in terms of water quality.

Bats

6.1.5 **MM3 – Felling of Trees Supporting Bat Roosting Potential.** No trees supporting moderate or high bat roosting potential have been identified within the site. A single tree (T1) has been identified as providing low potential for roosting bats, albeit is to be retained under the proposals. In the event that this tree is identified for removal, felling of this tree will therefore be undertaken under an ecological watching brief, and will be carried out using

the 'soft-felling' technique, whereby sections of the tree will be cut and lowered to the ground, followed by leaving the felled sections on the ground for a period of at least 24 hours to allow any bats, should these be present, to escape.

6.1.6 If any evidence for the presence of roosting bats is recorded, works on that tree will be suspended and consideration will be given to the need to undertake works under a European Protected Species (EPS) mitigation licence, and a licence application will be made to Natural England as required.

6.1.7 **MM4 – Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the southern boundary, and retained hedgerows and scrub, and the area of grassland at the south-west of the site, will be minimised in accordance with good practice guidance²¹ to reduce potential impacts on light-sensitive bats (and other nocturnal fauna). This may be achieved through the implementation of a sensitively designed lighting strategy, with consideration given to the following key factors:

- **Light exclusion zones** – ideally no lighting should be used in areas likely to be used by bats. Light exclusion zones or 'dark buffers' may be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
- **Appropriate luminaire specifications** – consideration should be given to the type of luminaires used, in particular luminaries should lack UV elements and metal halide and fluorescent sources should be avoided in preference for LED luminaries. A warm white spectrum (ideally <2,700K) should be adopted to reduce the blue light component;
- **Light barriers / screening** – new planting (e.g. hedgerows and trees) or fences, walls and buildings can be strategically positioned to reduce light spill;
- **Spacing and height of lighting units** – increasing spacing between lighting units will minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting will also help decrease the volume of illuminated space and give bats a chance to fly over lighting units (providing the light does not spill above the vertical plane). Low level lighting options should be considered for any parking areas and pedestrian / cycle routes, e.g. bollard lighting, handrail lighting or LED footpath lighting;
- **Light intensity** – light intensity (i.e. lux levels) should be kept as low as possible to reduce the overall amount and spread of illumination;
- **Directionality** – to avoid light spill lighting should be directed only to where it is needed. Particular attention should be paid to avoid the upward spread of light so as to minimise trespass and sky glow;
- **Dimming and part-night lighting** – lighting control management systems can be used, which involves switching off/dimming lights for periods during the night, for example when human activity is generally low (e.g. 12.30 – 5.30am). The use of such control systems may be particularly beneficial during the active bat season (April to October). Motion sensors can also be used to limit the time lighting is operational.

²¹ Bat Conservation Trust and Institute of Lighting Professionals (2018) 'Guidance Note 08/18: Bats and artificial lighting in the UK'; Stone, E.L. (2013) 'Bats and lighting: Overview of current evidence and mitigation guidance.'; ILP (2011) 'Guidance notes for the reduction of obtrusive light' Institution of Lighting Professionals, GN01:2011.

Badger

6.1.8 **MM5 – Badger Construction Safeguards.** In order to safeguard Badger should they enter the site during construction works, the following measures will be implemented:

- Any trenches or excavations within the site that are to be left open overnight will be provided with a means of escape should a Badger enter. This could simply be in the form of a gently graded ramp or roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water;
- Any temporarily exposed open pipes (>150mm outside diameter) should be blanked off at the end of each working day so as to prevent Badgers gaining access as may happen when contractors are off-site;
- Any trenches/pits will be inspected each morning to ensure no Badgers have become trapped overnight. Should a Badger become trapped in a trench it will likely attempt to dig itself into the side of the trench, forming a temporary sett. Should a trapped Badger be encountered a suitably qualified ecologist will be contacted immediately for further advice;
- The storage of topsoil or other 'soft' building materials in the site will be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these will be kept to a minimum and any essential mounds subject to daily inspections with consideration given to temporarily fencing any such mounds to exclude Badgers;
- The storage of any chemicals at the site will be contained in such a way that they cannot be accessed or knocked over by any roaming Badgers;
- Fires will only be lit in secure compounds away from areas of Badger activity and not allowed to remain lit during the night; and
- Unsecured food and litter will not be left within the working area overnight.

6.1.9 **MM6 – Badger Update Survey.** Given that no evidence of Badgers has been recorded within or adjacent to the site it is considered that Badgers do not currently pose a constraint to development. Nonetheless, Badgers are dynamic animals and levels of Badger activity can rapidly change at a site, with new setts being created at any time. It is therefore recommended that an update survey is carried out prior to commencement of site works in order to confirm the current status of Badgers at the site.

Hedgehogs

6.1.10 **MM7 – Hedgehog Safeguards.** In order to safeguard Hedgehogs and other small mammals should they enter the site during construction works, the following measures will be implemented:

- A watching brief should be maintained for Hedgehog and other small mammals throughout any clearance works;
- Any piles of material already present on site, particularly vegetation/leaves, etc. and any areas of dense scrub or hedgerows, shall be dismantled/removed by hand and checked for Hedgehog prior to the use of any machinery/disposal;
- Any material to be disposed of by burning, particularly waste from vegetation clearance and tree works, should not be left piled on site for more than 24 hours in order to minimise the risk of Hedgehogs occupying the pile. If this cannot be avoided, material should be stored within a container such as a skip to prevent

animals from gaining access. Any material which has been stored on the ground overnight should be moved prior to burning to allow a thorough check for any animals which may have been occupying the pile;

- In the event that an injured Hedgehog is found, the animal should be wrapped carefully in a towel, the British Hedgehog Preservation Society (BHPS) phoned (01584 890 801) and the Hedgehog taken to a local vet immediately;
- To maintain connectivity throughout the site for Hedgehog and to allow access to suitable foraging habitat contained within residential gardens, small holes (13cmx13cm) should be created within garden fences or under gates.

Reptiles

6.1.11 MM8 – Destructive Search. As a precautionary measure to minimise the risk of harm to reptiles, a destructive search is proposed. The destructive search will involve cutting the arable field margins within the development footprint to a short height (~15cm) so as to encourage reptiles to disperse to suitable areas of retained/nearby habitat, whilst also allowing for a fingertip search of the area. This exercise should be carried out under the supervision of a competent ecologist during the active reptile season where practicable (generally March/April to September/October, depending on prevailing weather). Any potential refuge features, e.g. piles of rubble, heavy logs, brash piles, will be fingertip-searched by an ecologist prior to being carefully disassembled. Any reptiles encountered during the destructive search will be carefully rescued by the supervising ecologist and relocated to suitable nearby habitat.

Nesting Birds

6.1.12 MM9 – Timing of Works. To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of vegetation clearance.

6.2 Biodiversity Net Gains

6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the local Biodiversity Action Plan (BAP). The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (**EE1 – EE9**), the opportunity exists for the proposals to deliver a number of biodiversity net gains at the site.

Habitat Creation

6.2.2 EE1 – New Planting. It is recommended that where practicable, new planting within the site be comprised of native species of local provenance, including trees and shrubs appropriate to the local area. Suitable species for inclusion within the planting could include native trees

such as Oak, Ash, Birch *Betula pendula* and Field Maple, whilst native shrub species of particular benefit would likely include fruit and nut bearing species which would provide additional food for wildlife, such as Blackthorn, Hawthorn, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder. Where non-native species are proposed, these should include species of value to wildlife, such as varieties listed on the RHS' 'Plants for Pollinators' database, providing a nectar source for bees and other pollinating insects.

6.2.3 **EE2 – Wildflower Grassland.** The proposals include creation of considerable areas of wildflower grassland within the site such that, in combination with new native landscape planting, opportunities for biodiversity will be maximised under the proposals. This would make a positive contribution towards the local BAP, which lists 'lowland meadows' as a priority. Consideration should be given to the laying of wildflower turfs, comprising locally appropriate native species, to establish wildflower grassland. This would ensure rapid establishment of these habitats, and reduce the timeframe for delivering the range of ecological benefits that are proposed.

6.2.4 **EE3 – Wetland Features.** The proposals include creation of new wetland habitats that will provide a range of opportunities for wildlife. It is recommended that the ponds or other wetland habitats such as Sustainable Drainage Systems (SuDS) under the proposals be given due consideration. Creation of such habitats would provide opportunities for a range of wildlife while also helping to attenuate surface water run-off.

Bats

6.2.5 **EE4 - Bat Boxes.** A number of bat boxes will be incorporated within the proposed development. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Soprano Pipistrelle, a national Priority Species. So as to maximise their potential use, the bat boxes should ideally be situated on suitable retained trees, erected as high up as possible and sited in sheltered wind-free areas that are exposed to the sun for part of the day, facing a south-east, south or south-westerly direction. In addition, where architectural design allows, a number of integrated bat boxes / roost features should be incorporated into a proportion of the new build. The precise number and locations of boxes / roost features should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Hedgehog

6.2.6 **EE5 – Hedgehog Nest Domes.** It is recommended that Hedgehog nest domes be installed within sheltered areas, such as the existing or newly created hedgerows to provide suitable nesting and hibernation sites for this species. The Hedgehog nest domes should be positioned out of direct sunlight, in areas of dense vegetation.

Birds

6.2.7 **EE6 - Bird Boxes.** A number of bird nesting boxes are to be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. Ideally, the bird boxes will have greater potential for use if sited on suitable, retained trees, situated as high up as possible. The precise number and locations of boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Invertebrates

- 6.2.8 **EE7 – Habitat Piles.** A proportion of any deadwood arising from vegetation clearance works should be retained within the site in a number of wood piles located within areas of new planting, new wetland habitats or areas of wildflower grassland in order to provide potential habitat opportunities for invertebrate species, which in turn could provide a prey source for a range of other wildlife. In addition, the provision and management of new native landscape planting will likely provide additional opportunities for invertebrates at the site in the long term.
- 6.2.9 **EE8 – Nectar Source.** The wildflower mix will include various Bents *Agrostis* spp. and Hawkweeds (*Hieracium/Hypochoeris*), which will provide a larval food source and adult nectar source, respectively, for Wall butterfly (Priority Species).
- 6.2.10 **EE9 – Bee Bricks.** It is recommended that a number of bee bricks be incorporated within the proposed development thereby increasing nesting opportunities for declining populations of non-swarming solitary bee populations. Ideally, bee bricks should be located within suitable south-facing walls (where architectural design allows), located at least 1m off the ground. The bricks should be unobstructed by vegetation, though within close vicinity of nectar and pollen sources.

7 Conclusions

- 7.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys.
- 7.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within the site, with only Flich Way LNR and LWS adjacent to the site. Subject to proportionate safeguarding measures set out in Chapter 6, none of the designations within the surrounding area are likely to be adversely affected by the proposals.
- 7.3 The Phase 1 habitat survey has established that the site is dominated by habitats not considered to be of ecological importance, whilst the proposals have sought to retain those features identified to be of value. Where it has not been practicable to avoid loss of habitats, new habitat creation has been proposed to offset losses, in conjunction with the landscape proposals.
- 7.4 The habitats within the site have potential to support protected species, including species protected under both national and European legislation. Albeit, no protected species, or evidence of, was recorded during the survey work. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with compensatory measures proposed, where appropriate, in order to maintain the conservation status of local populations.
- 7.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide a number of biodiversity net gains as part of the proposals.

Plan 6047/ECO1:

Site Location



Key:

 Site Location



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 Noral Way - Banbury - Oxfordshire - OX16 2AF
 01295 279721 - info@aspect-ecology.com

Moors Field, Fritch Green,
 Dunmow
 Site Location

6047/ECO1

A/AM

November 2021

PROJECT

TITLE

DRAWING NO.

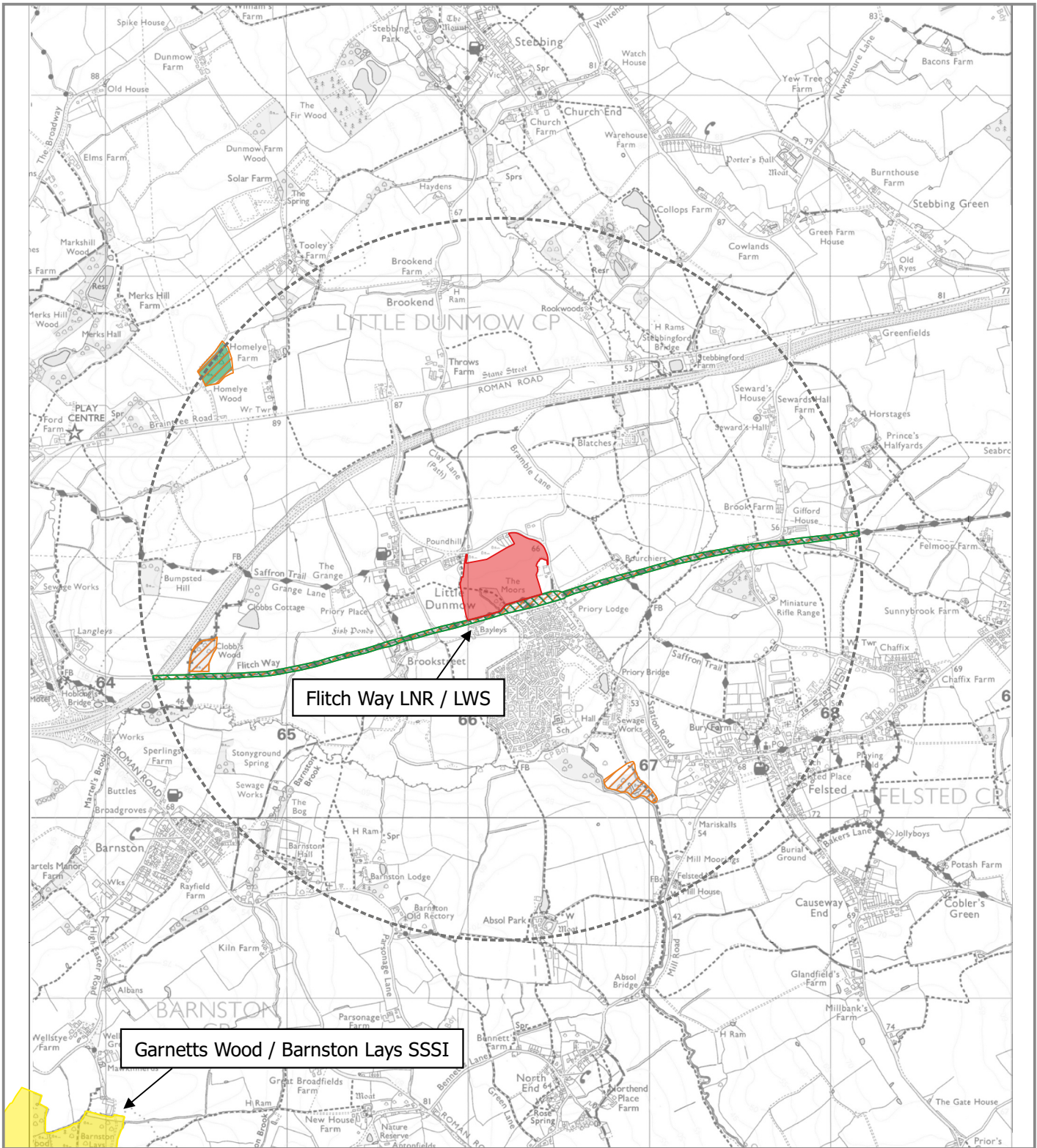
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DATE



Plan 6047/ECO2:

Ecological Designations



Key:

- Site Location
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- Ancient Semi-natural Woodland (ASW)
- Site of Special Scientific Interest (SSSI)
- Local Records Centre 2km Search Area



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**Moors Fields, Fitch Green,
 Dunmow**
 Ecological Designations

6047/ECO2

A/AM

November 2021

PROJECT

TITLE

DRAWING NO.

REV

DATE



Plan 6047/ECO3:

Habitat and Ecological Features



- Key:
- Site Boundary
 - Arable
 - Species-poor Semi-improved Grassland
 - Woodland Edge
 - Tall Ruderal
 - Pond (Off-site)
 - Dense Scrub
 - Scattered Scrub
 - Hedgerow
 - Dry Ditch
 - Wet Ditch
 - Tree
 - Tree with Low Bat Roosting Potential

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Moors Fields, Fritch Green,
 Dunmow
 Habitats and Ecological Features

6047/ECO3



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Appendix 6047/1:

Evaluation Methodology

Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)¹.

Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
 - Naturalness;
 - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
 - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
 - Endemic species or locally distinct sub-populations of a species;
 - Habitat diversity;
 - Habitat connectivity and/or synergistic associations;
 - Habitats and species in decline;
 - Rich assemblages of plants and animals;
 - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
 - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
 - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

¹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
 - International (European);
 - National;
 - Regional;
 - County;
 - District;
 - Local (e.g. Parish or Neighbourhood);
 - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

Appendix 6047/2:

Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself¹. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
 - Wildlife and Countryside Act 1981 (as amended)
 - Protection of Badgers Act 1992
 - Hedgerows Regulations 1997
 - Countryside and Rights of Way (CROW) Act for England and Wales 2000
 - Natural Environment and Rural Communities Act 2006
 - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
 - Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
 - Take or destroy an egg of any wild bird.

* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
 - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
 - Disturb dependent young of such a bird.

¹ <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
 - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
 - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
 - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
 - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
 - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
 - Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
 - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
15. **Hedgerows Regulations 1997.** ‘Important’ hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify ‘important’ hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

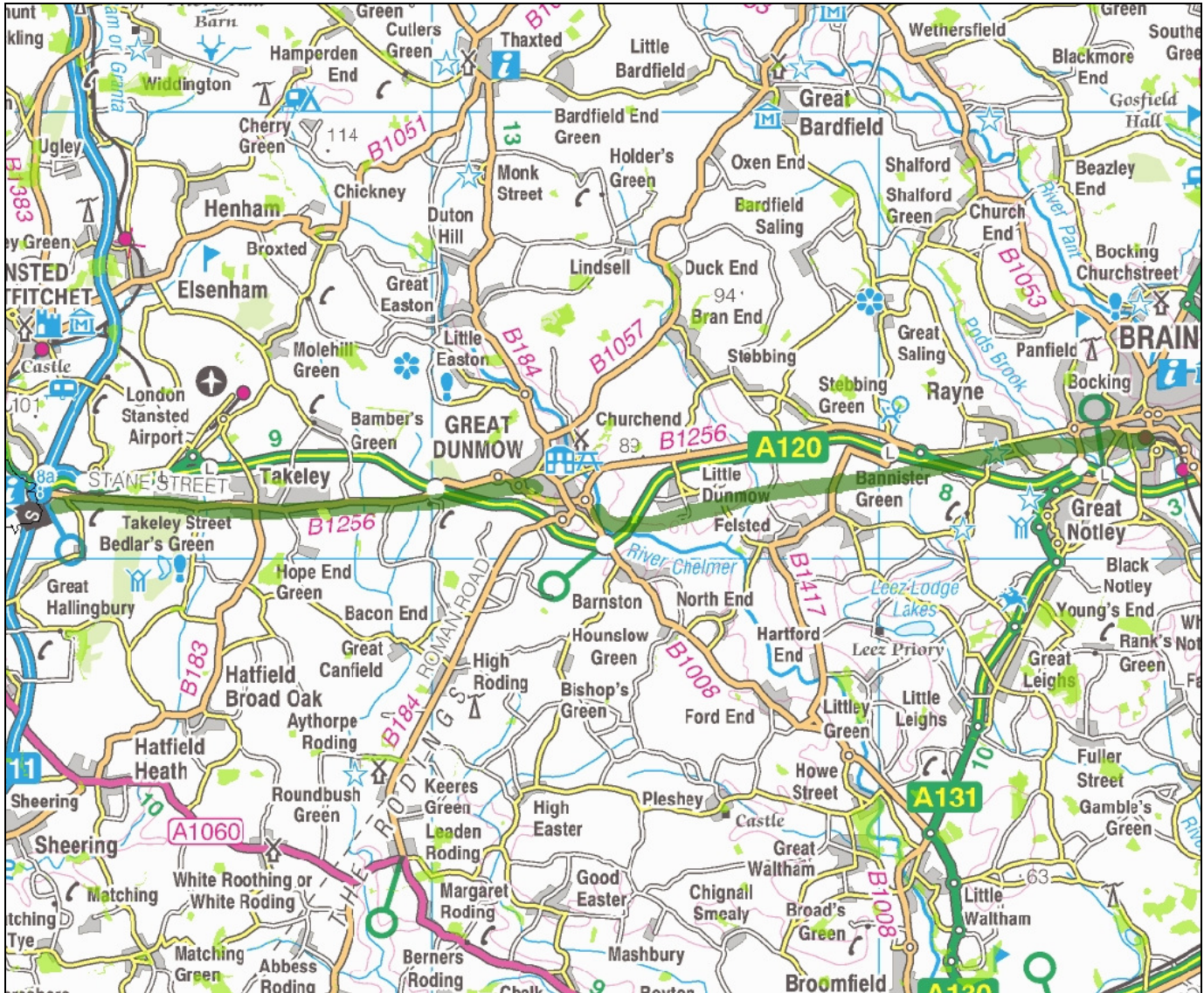
17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)² classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
 - Deliberately capture, injure or kill any wild animal of a European Protected Species;
 - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
 - Deliberately take or destroy the eggs of such an animal;
 - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

² Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Appendix 6047/3:

Non-statutory Designation Citations

LOCAL WILDLIFE SITES.
UTTLESFORD DISTRICT
Ufd196. Flich Way



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Ufd196. Flich Way (33.6 ha) TL 595212

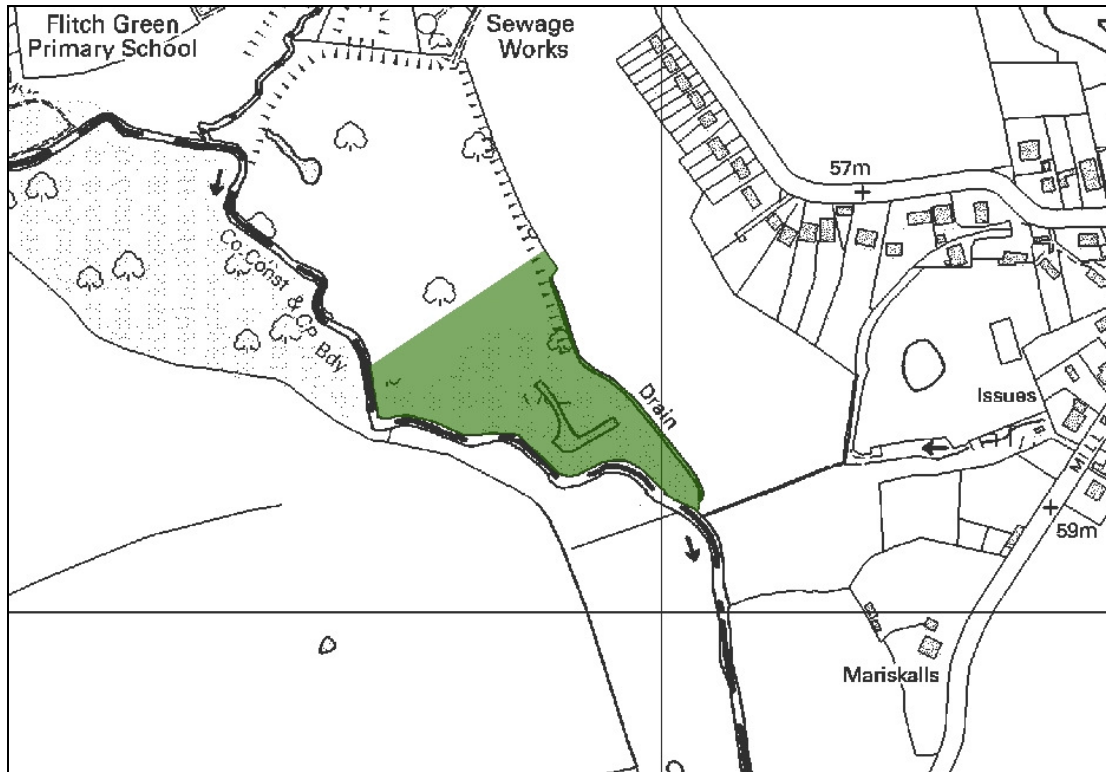
This disused railway line has been taken over by the County Council as a bridle/pathway which in addition acts as a valuable wildlife corridor throughout the south of the district, as well providing a good series of habitats in its own right. At nearly 34 hectares it is effectively one of the largest woodland/scrub/grassland habitats of high nature conservation value in the district. N.B. This LoWS includes a small number of woodland fragments adjacent to the Flich Way that are in private ownership.

Woodland and hedgerow species include: Wild Clematis (*Clematis vitalba*), Dog's Mercury (*Mercurialis perennis*), Yellow Archangel (*Lamium galeobdolon*), Primrose (*Primula vulgaris*), Bluebell (*Hyacinthoides non-scripta*), Sweet Violet (*Viola odorata*), Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*), Remote Sedge (*Carex remota*), Wood Millet (*Milium effusum*), Early dog-violet (*Viola reichenbachiana*) and Ramsons (*Allium ursinum*).

The varied ground conditions that result from the various embankments and cuttings as well as the importation of artificial substrates gives rise to a high diversity of grassland types. Typical species include: Black Knapweed (*Centaurea nigra*), Greater Knapweed (*Centaurea scabiosa*), Cowslip (*Primula veris*), Salad Burnet (*Sanguisorba minor*), Burnet Saxifrage (*Pimpinella saxifraga*), Marsh Thistle (*Cirsium palustre*), Meadowsweet (*Filipendula ulmaria*), Bog Stitchwort (*Stellaria uliginosa*) and Sheep's Sorrel (*Rumex acetosella*).

The invertebrate populations include some interesting records, including many Nationally Scarce species, such as the Hornet Moth (*Sesia apiformis*), the Pimpinel Pug moth (*Eupithecia pimpinellata*) and the digger wasp *Crossocerus distinguendus* - Date of selection/last revision: 2007

LOCAL WILDLIFE SITES.
UTTLESFORD DISTRICT
Ufd276. Felsted Fen



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Ufd276. Felsted Fen (2.3 ha) TL 669202

Although planted with Willows (*Salix* sp.), this site retains a valuable fen-like vegetation of abundant Pond-sedge (*Carex* spp.), Purple Loosestrife (*Lythrum salicaria*), Angelica (*Angelica sylvestris*), Soft Rush (*Juncus effusus*), Comfrey (*Symphytum* sp.), Giant Horsetail (*Equisetum telmateia*) and Nettle (*Urtica dioica*). Situated in the flood plain of the River Chelmer, this vegetation type would formerly have been more widespread but has been largely lost due to drainage or other developments. It is likely that this site extended northwards before being used for tipping.

Date of selection/last revision: 1994

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