Land at Wrexham Road, Holt, Wrexham

Ecology Scoping Assessment

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1 Introduction

1.1 Background

Kingdom Ecology have carried out an update ecological assessment of an area of farmland located on Wrexham Road on the southwestern edge of the village of Holt, Wrexham, LL13 9TS (National Grid Reference SJ 4058 5337). The assessment has been carried out to identify any ecological constraints which should be considered during any future development of the site. Proposals are to construct residential housing with associated road infrastructure, balancing ponds and amenity areas.

An initial assessment was completed in 2021 comprising of a desk study and field survey. The field survey was undertaken on the 12th February 2021. An update ecology walkover survey was completed on 17th April 2024 to identify whether there had been a significant change to the site and whether the previous survey findings remain valid.

Surveys were carried out by Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking habitat and protected species surveys as a professional ecological consultant with over twenty years' experience.

1.2 Purpose of Report

This report provides and outlines the findings of an ecological survey carried out in February 2021 and April 2024.

The desk study and field survey aimed to identify habitats and species which are either of importance in terms of their conservation value or are afforded statutory legal protection. The presence of such habitats or species would form a material consideration during the planning process and could pose a constraint to the redevelopment of the site.

Species considered during the assessment included breeding birds, bats, great crested newt and badgers. The survey also assessed the hedgerows present with regards to their importance under the Hedgerow Regulations.

The report evaluates the conservation importance of the habitats and species recorded and goes on to make recommendations for further survey, mitigation and ecological enhancement measures where relevant.

1.3 Protected Species Legislation

1.3.1 Environment (Wales) Act 2016

Section 6 of the Environment (Wales) Act 2016 places a legal obligation on public bodies in Wales to 'maintain and enhance biodiversity' whilst carrying out their functions.

Section 7 of that Act requires Welsh Ministers to publish and maintain lists of species and types of habitats in Wales that are regarded as of 'principal importance' for the purpose of maintaining and enhancing that biodiversity.

This section of the Act replaces the biodiversity duty originally outlined in Section 42 of the NERC Act 2006.

The presence at any proposed development site, of any priority habitat or priority species identified on these lists is of importance within the local authority planning process.

1.3.2 Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

1.3.3 Badgers

Badgers are afforded protection under the Protection of Badgers Act (PBA) 1992; this act was introduced on welfare grounds. The Act is based primarily on the need to protect badgers from baiting and deliberate harm or injury. Badgers are not considered to be a species of any conservation concern. However, the Act contains restrictions that apply more widely and can have implications were badgers and development come into conflict.

All the following are considered criminal offences:

- to wilfully kill, injure, take, possess or cruelly ill-treat a badger;
- to attempt to do so; or
- to intentionally or recklessly interfere with a sett.

Sett interference includes damaging or destroying a sett, obstructing access to a sett, and disturbing a badger whilst it is occupying a sett. It is not illegal, and therefore a licence is not required, to carry out disturbing activities in the vicinity of a sett if no badger is disturbed and the sett is not damaged or obstructed.

1.3.4 Bats

All British bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended) and through their inclusion in Schedule II of the Habitats Regulations 2010 which transpose Annex II

of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

British bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

Taken together, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is interpreted as "any structure or place, which any wild bat uses for shelter or protection." (Bat Conservation Trust 2016[1]). A bat roost is protected whether or not bats are present at the time.

All species of British bat are considered a European Protected Species (EPS). The Conservation of Habitat and Species Regulations (2010) provide derogation against certain offences which could potentially affect an EPS through the EPS Licensing system.

[1] Bat Conservation Trust (2016) 'Bat Surveys: Good Practice Guidelines 3rd Edition'

2 Methods

2.1 Survey Aims and Objectives

The survey aim was to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Field survey comprised of an Extended Phase 1 Habitat survey which included an assessment of habitats at the site in terms of its suitability to support protected species including breeding birds, bats, and badger.

Species that are considered highly unlikely to be affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment. The survey has also assessed the importance of hedgerow along the boundaries of the site with regards to the Hedgerow Regulations 1997.

Survey aimed to identify opportunities for ecological enhancement and to inform potential mitigation measures if required to ameliorate any negative impacts attributable to the proposed works.

2.2 Extended Phase 1 Habitat Survey

An Extended Phase 1 Habitat Survey of the proposed development area was undertaken on the 12th February 2021 and updated on 17th April 2024. Survey was carried out following standard methodologies as described in the *'Handbook for Phase 1 Habitat Survey – a technique for environmental audit'* (JNCC, 2004[2]).

The aims of the Extended Phase 1 Habitat Survey were to:

- identify and map all areas of semi-natural habitat within each study area;
- provide a botanical description of the semi-natural habitats surveyed;
- identify areas or habitats that are of particular ecological interest for nature conservation, and which require more detailed investigation;
- provide additional information regarding incidental observations of protected species and the potential of habitats to support such species.

[2] JNCC (2004) 'Handbook for Phase 1 Habitat Survey – a technique for environmental audit'

A habitat map was produced and lists of dominant or notable vascular plant species were recorded in each of the major habitat types where relevant.

2.3 Hedgerow Regulations 1997

Hedgerows at the site have been assessed to determine whether they qualify as 'important' under the Hedgerow Regulations 1997 which are the main regulations aimed at protecting hedgerows in their own right. These regulations are a part of the planning regulations and are administered by the local planning authority in England and Wales. The regulations are in place to allow planning authorities to protect important hedgerows from removal. Removal is uprooting or otherwise destroying a hedgerow, this includes serious damage to the root system or over-maintenance resulting in the death of the hedgerow.

Hedges that are less than 20m long (with some exceptions), garden hedges and former hedgerows that have grown to a line of trees are not covered by the Regulations. Trees within a hedgerow are considered to be a part of the hedge. If a hedge is removed without permission (whether important or not) the landowner may face an unlimited fine and may have to replace the hedge.

A landowner wishing to remove a hedgerow must serve a Hedgerow Removal Notice in writing to the local planning authority. The authority then has 42 days to determine whether or not the hedgerow is 'important' under the Regulations, and whether or not to issue a Hedgerow Retention Notice. The authority must consult the local parish/ community council and consider their views when making the decision. A Hedge Retention Notice is permanent, although a planning authority may withdraw it at any time.

If the hedgerow is not 'important', the authority cannot refuse a permission to remove it under the Regulations. If the hedgerow is important, the authority can issue a Retention Notice unless they are satisfied that circumstances justify the removal.

Important Hedgerows

To qualify as 'important', a hedgerow must be at least 30 years old and meet at least one of the following eight criteria, which identify hedgerows of particular archaeological, historical, wildlife and landscape value:

1. The hedgerow marks the boundary of a historic parish or township existing before 1850.
2. The hedgerow incorporates an archaeological feature.
3. The hedgerow is a part of or associated with an archaeological site.
4. The hedgerow marks the boundary of or is associated with a pre-1600 AD estate or manor.

5. The hedgerow forms an integral part of or is associated with a field system pre-dating the Enclosures Act.
6. The hedgerow contains a protected species listed under schedule 1, 5 or 8 of the Wildlife and Countryside Act 1981. In addition, species listed in certain red data books qualify.
7. The hedgerow includes, on average, in a 30 metre length one of:
    a) at least 7 woody shrub and tree species listed in the regulations.
    b) at least 6 woody species and has at least 3 associated features.
    c) at least 6 woody species including a black-poplar tree, large-leaved lime, small-leaved lime or wild service tree.
    d) at least 5 woody species and has at least 4 associated features.

    In northern England, the number of woody species is reduced by one.
8. The hedgerow runs alongside a bridleway, footpath, road used as a public path or a byway open to all traffic, and includes at least four woody species, on average, in a 30m length and has at least two associated features.

The associated features are:

- A bank or wall supporting the hedgerow along at least half of its length.
- Less than 10% gaps.
- On average, at least one tree per 50 metres of hedge
- At least three species from a list of 57 herbaceous woodland plants, including bluebell, primrose, wild strawberry and assorted ferns and violets.
- A ditch along at least a half of the length of the hedge.
- A number of connections with other hedgerows, ponds or woodland.
- A parallel hedge within 15 metres of the hedgerow.

With regards to this report, the importance of hedgerows at the site have been assessed against ecological criteria only (criteria 7 and 8 within the Regulations).

3 Desktop Study

3.1 Sources of Information

Ecological information on habitats, species and designated nature conservation sites has been sought from COFNOD who are the local biological records centre for the North Wales Region.

3.2 COFNOD Data

3.2.1 Species

COFNOD holds several records of protected species and notable species within 1km of the site including the following:

- Barn owl
- Great crested newt
- Badger
- Otter
- Daubenton's bat
- Unknown bat species
- Peregrine falcon
- Red kite
- Small heath

COFNOD holds no records of protected species for the site itself. A kestrel is recorded using woodland habitats immediately to the west of the site.

There is a record of an unknown bat species and barn owl located at the Bellis Brother's Garden Centre immediately to the north of the site.

The River Dee is located approximately 320m to the east of the site. There are records of otter on the nearby section of river.

There are no records of great crested newt within 500m, the nearest record is located approximately 1km to the southwest of the site.

3.2.2 Designated Sites

There are no Local Wildlife Sites located within 1km of the site.

The Afon Dyfrdwy/ River Dee SSSI and Special Area of Conservation is located approximately 320m to the east of the site.

The River qualifies as a SAC principally on account of Annexe II species present but the River also supports Annexe I habitats.

Qualifying features of the SAC are:-

- Annex II Species (primary reason): Atlantic salmon, Floating water-plantain.
- Annex II Species (qualifying reason): Sea lamprey, Brook lamprey, River Lamprey, Bullhead, Otter.
- Annex I Habitat: Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation.

The Natural Resources Wales citation for the River Dee SSSI citation describes the reasons for the SSSI notification of the Dee as follows.

- 'The River Dee is notified for its nationally important transition through a range of river types from mesotrophic to eutrophic. It is also notified for Atlantic salmon *Salmo salar*, otter *Lutra lutra*, club-tailed dragonfly *Gomphus vulgatissimus* and fluvial geomorphology.
- The River Dee lies within both England and Wales, and is notified as separate SSSIs – the River Dee (England) and the Afon Dyfrdwy-River Dee SSSI in Wales. The features for which the SSSIs are notified, in particular migratory fish, depend upon the whole river ecosystem. Salmon, otter, club-tailed dragonfly, and fluvial geomorphology are of special interest in both Wales and England.

Given the nature of the development proposals, the distance of the site from the River Dee and the qualifying features of the River Dee itself, it is considered to be very unlikely that the development would have any significant impact on the river.

4 Results

4.1 Site Description and Habitats

The proposed development would affect an approximate 1.9ha area of land located at the southwestern edge of the village of Holt. The site is accessed from the B5102 Wrexham Road.

The site is located in a semi-rural setting, with surrounding landuses comprising of a new housing estate immediately to the east which has been recently constructed; there is a further residential property located along the northern boundary of the site; and there is a small pocket of community woodland along the site's western boundary.

Wider habitats comprise of further residential housing. Bellis Brothers garden centre and fruit farm is located immediately to the north of the site on the opposite side of Wrexham Road. The busy A534 Wrexham Road runs along the southern boundary of the site. The study site location is shown on Figure 1 in the Appendix.

The study site principally comprises of a small farmyard with a machine shed and cattle shed plus a single area of open field which is grazed by cattle. The site has species-poor hawthorn hedgerows running along its eastern and southern boundaries and along its northern boundary with Wrexham Road. The site was found to be fundamentally the same in 2024 as recorded in 2021.

Habitats at the study area are Target Noted and shown on Figure 2 in the Appendix. Target Notes descriptions are provided in Table 1 below. Photographs of the habitats are provided in the Appendix.

Table 1- Habitat Target Notes

Target Note	***Description***
1	This is the main farmyard area. It comprises of compacted bare ground and hardcore. There are areas of tall ruderal vegetation and a vegetated spoil mound located near the northern edge of the farmyard. There are various pieces of farm equipment and machinery scattered around the area, piles of waste material, old tyres plus stored silage and hay bales. There is a pen at the west end of the yard which is used to house cattle. A species-poor hedgerow runs along the site's northern boundary with Wrexham Road (Target Note 5). Areas of vegetation in this area are limited; there are patches of ruderal vegetation near the northerly hedgerow and on the nearby spoil heap comprising of nettle, bramble, cleavers and coarse grasses. There are two buildings in this area (Target Notes 2 and 3).

Target Note	*Description*
2	This is a large machine shed located within the farmyard. It is a modern, portal framed structure and is clad in corrugated metal with Perspex skylights. The shed measures approximately 30m x 12m in area. The interior of the shed is brightly lit by the skylights and is in frequent use. The shed is used to house tractors and other farm machinery. The shed is considered to be unsuitable for roosting bats.
3	This is an open-sided, cattle shed constructed of corrugated tin and asbestos panels around a steel and wooden beamed frame. The east and southern faces of the shed are entirely open. The shed is considered to be unsuitable for roosting bats.
4	There is a spoil heap and some cut brash in this area. The spoil heap supports ruderal vegetation with nettle, garlic mustard, broadleaved dock, ground elder, green alkanet, dandelion and cleavers.
5	There is a species-poor hedgerow running along the northern boundary of the site on the B5102 Wrexham Road. The hedgerow comprises of hawthorn with occasional sycamore. The hedgerow is approximately 50m in length. The hedge is not considered to qualify as 'important' under the Hedgerow Regulations with regards to the ecological criteria. A section of this hedgerow would be removed to provide a new site access.
6	The majority of the site comprises of a single large pasture field. The field measures approximately 1.34ha in area. The field is used by the cattle present. The field comprises of grazed, improved, modified grassland comprising of perennial rye-grass and annual meadow grass with dandelion. There are large areas of poached, bare ground. Hedgerows run along the eastern, southern and western boundaries of the field.
7	This is a species-poor hedgerow which runs along the eastern boundary of the site. The hedgerow comprises of hawthorn only. There is a single semi-mature, multi-stemmed sycamore located at the southern end of the hedgerow but within the adjacent new housing estate. The tree supports some light ivy growth. A short section of hedge would be removed to provide pedestrian access to the neighbouring development. The hedge is not considered to qualify as 'important' under the Hedgerow Regulations with regards to the ecological criteria.
8	There is a species-poor hedgerow running along the southern boundary of the site. The hedge comprises of hawthorn with occasional dog rose. The hedge forms the boundary between the site and the verge of the adjacent A534. The road verge comprises of a band of rough grassland, typical ruderal vegetation and bramble scrub. This length of hedgerow would be unaffected by proposals.

Target Note	*Description*
9	There is a section of species-poor hedgerow running along the site's northern boundary with Wrexham Road. The hedge in this location comprises of hawthorn with garden privet and occasional sycamore. This section of hedgerow would be unaffected by proposals.
10	There is a small area of community owned woodland located to the west of the site. The woodland supports a range of young trees which principally comprise of oak with cherry, poplar, field maple and sycamore.
11	There is an inactive badger outlier sett located at the north-east corner of the community woodland. The burrows were present in 2021 and appeared to be rabbit burrows which had been dug out by a large mammal (see section 4.2.2 below). By the 2024 surveys the burrows appear to be in disuse with nettle growth within the spoil heaps and no signs of recent usage.
12	There is a small copse of trees and scrub located to the southeast of the site. This comprises of hazel, hawthorn, cherry and poplars. A footpath runs through this area to the new housing estate.

4.2 Protected Species

4.2.1 Great Crested Newt

There are no ponds located within 500m of the proposed development site. Also, the site is isolated from the surrounding countryside by the surrounding road network and the new housing estate to the east.

Therefore, it is considered to be very unlikely that great crested newt would be affected by development proposals.

4.2.2 Badgers

No definitive evidence of badger activity was identified within the study site itself. However, badgers are known to be present in the wider landscape and so they may occasionally forage within grassland habitats present. The surveyor is aware of a badger main sett located approximately 400m to the north of the site.

An inactive badger sett is located immediately adjacent to the site (Target Note 11) within an area of community woodland on the site's western boundary (badger sett located at grid reference SJ40525332).

The survey completed in 2021 recorded a rabbit warren at Target Note 11. The warren comprised of 4 entrance holes. Three of the entrances were observed to be small but one of the entrances appeared to have been dug out and enlarged (possibly by a badger or fox) and so had a large spoil heap.

However, the burrow was found to narrow down to approximately 100mm in width after approximately 1m and it is therefore not considered to represent a fox earth of badger sett. Old rabbit bones were present within the spoil.

The 2024 survey identified two large burrows in this location with large gravelled spoil heaps. The burrows were found to maintain a relatively wide tunnel to a depth of at least 1.5 m. The two burrows are located approximately 1.5 m and 2.5 m away from the site boundary.

The burrows appear to be inactive with light nettle growth present within the spoil heaps and burrow entrances. There were no active mammal runs leading from the burrows through the surrounding tall herb vegetation. No badger field signs were recorded around the burrows (e.g. prints, latrines or badger hairs).

The applicant reports that badger were known to use the burrows approximately three years ago but no evidence of badger has been seen around the burrows for at least the last two years.

Taking all the above into account, the 2024 surveys concluded that the badger setts are currently inactive. However, the status of badger setts can quickly change and the setts could come back into usage by badgers in the near future.

4.2.3 Breeding Birds

Hedgerow habitats along the boundaries of the site could be used by nesting birds during the breeding bird season.

4.2.4 Bats

The two buildings at the site (a machine shed and cattle shed) are considered to be unsuitable for roosting bats (See Target Notes 2 and 3 for building descriptions).

Habitats at the site are considered unlikely to be of any significant value for foraging bats. The site supports some limited potential foraging habitat along the hedgerows at the site's perimeters and also along the edge of the adjacent pockets of woodland (Target Notes 10 and 11).

The site is likely to only provide foraging habitat to low numbers of common bat species.

The main body of the site comprises of poor-quality grassland which is heavily poached and unlikely to provide any significant foraging opportunities.

4.2.5 Other Protected Species

No other protected species are considered likely to be present within the proposed development areas.

5 Evaluation and Recommendations

5.1 Summary

5.1.1 Habitats

Field survey completed in 2021 and 2024 has assessed the ecological value of an approximate 1.9ha area of land located on Wrexham Road at the southwestern edge of the village of Holt.

Habitats principally comprises of a bare earth, a small farmyard plus a single area of open field which is grazed by cattle. The field was found to be species-poor and to comprise of modified grassland. There is also a machine shed and a cattle shed present within the yard area. These habitats are considered to be of very limited conservation value.

The site has species-poor, hawthorn hedgerows running along its eastern and southern boundaries and along its northern boundary with Wrexham Road. Although the hedgerows are not considered to be ecologically 'important' under the Hedgerow Regulations, the hedgerows are nevertheless considered to be of minor ecological value by providing potential refuge and foraging habitat for birds, bats and other local wildlife. The hedgerows are also likely to act as linear wildlife corridors through the landscape.

There is a single sycamore tree located within the hedgerow along the site's eastern boundary. There are no other trees present within the site itself.

Adjacent habitats are largely of limited conservation value comprising of roads along the site's north western and southern boundaries and a new housing estate located along the site's eastern boundary. There is a residential property with associated gardens also located on Wrexham Road and enclosed by the site.

There is a small pocket of community owned woodland immediately beyond the south west corner of the site and a small area of woodland and scrub beyond the site's south eastern boundary. These adjacent pockets of woodland are considered to be of minor biodiversity value.

5.1.2 Protected Species

The affected lengths of hedgerow could support nesting birds during the breeding bird season.

No evidence of current badger activity was identified within the study site itself. However, badger are known to be present in the wider landscape and so they may occasionally forage within grassland habitats at the site.

An inactive badger sett is located immediately adjacent to the site at Target Note 11. Although appearing to be currently disused, the status of badger setts can quickly change and the sett could come back into usage by badgers in the near future.

The two buildings at the site (the machine shed and cattle shed) are considered to be unsuitable for roosting bats.

No other protected species are considered likely to be present within the proposed development areas.

5.2 Development Proposals

The Proposal is to construct a residential development comprising of 39 new units with associated road infrastructure.

The development will largely affect the areas of bare ground and improved pasture. Hedgerows will largely be retained intact however a small section will be removed on the site's northern boundary with Wrexham Road to provide a new site access and also a pedestrian link would be created through the hedgerow on the eastern boundary.

The current layout would retain/create an area of green space with landscape planting and a balancing pond located along the southern edge of the site. The landscaped area would continue along the southern boundary along the outer edge of the existing block of community woodland. The development layout does not have any houses backing onto the community woodland area.

5.3 Design and Landscaping Recommendations

5.3.1 Landscaping

The areas of landscape planting and SUDS ponds offer opportunities to enhance the biodiversity value of the development proposals. It is therefore recommended that an appropriate Landscape and Habitat Management Plan is produced for the site. Outline recommendations to be considered for the plan are provided below.

Where practicable, the proposed development should seek to retain as much of the existing hedgerow network as is feasible. It is recommended that new boundary features comprise of new lengths of native hedgerow. Any new tree and shrub planting should also include native species.

Hedgerow species should comprise principally of hawthorn with blackthorn, hazel, holly, elder and oak included within the species mix.

New tree and scrub planting should include oak, silver birch, holly, hazel, hawthorn and blackthorn.

It is also recommended that grassland habitats are managed as a wildflower meadow type habitat as opposed to as closely mown amenity grassland. Creation of a wildflower grassland may require some soil manipulation to achieve low levels of soil nutrients and would require seeding with an appropriate seed mix (e.g. Emorsgate Seeds EM2 general purpose meadow mixture).

The areas of grassland can be mown for much of the year but to permit flowering, mowing should not be carried out from spring through to late July/August. Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site.

The proposed SUDS pond should be designed to be of benefit to wildlife. The ponds should have gently sloping sides. This will allow fauna to easily move between the terrestrial and aquatic habitats and to encourage a 'draw-down' zone at the pond margin which will be seasonally wet. These marginal habitats can be of value to invertebrates and aquatic vegetation. The pond should have an irregular shape to increase the length of pond margin habitat.

The pond should reach a depth of at least 1m in some parts so the pond will be permanently wet.

The pond should be planted up with appropriate native marginal and submerged vegetation. Marginal planting should be located around the northern edge of the pond to limit over-shading.

Native pond species valuable for wildlife include:

- Submerged plants- spiked water milfoil, rigid hornwort, water violet
- Floating pond plants- water lily, common water crowfoot, frogbit
- Marginal plants- water forget-me-not, bog bean, watermint, yellow flag iris, lesser spearwort, brooklime and marsh marigold

Invasive pond species which should be avoided including parrrot's feather, Canadian pondweed, water fern, new zealand pygmyweed,

Under no circumstances, should the ponds be stocked with fish as these can diminish the ecological value of a pond by predating invertebrates and amphibian larvae and by reducing water quality.

Any additional ornamental shrubbery and flower borders located around the site should seek to provide foraging opportunities for invertebrates. The Royal Horticultural Society (RHS) provides a list of suitable plants for pollinating insects (rhs.org.uk/plantsforpollinators). It is recommended that this list is consulted when drawing up the detailed planting plan for the site.

The landscape planting and proposed ponds will appreciably enhance the biodiversity value of the site's southern boundary and will also extend areas of woodland and scrub vegetation out from the adjacent community woodland and patch of scrub at the southeast and southwest corners of the site.

Once established, the gardens of the proposed residential properties are likely to be of a greater biodiversity value to the current areas of bare ground and closely pasture that exist on site.

5.3.2 Bat and Bird Boxes

The new development should include provision for roosting bats and breeding house sparrow and swifts. Bat and bird boxes can be built into the new structures at the site.

The precise location and specification of any bat or bird boxes should be determined by an appropriately qualified ecologist.

Bat boxes should be located at a height of at least 4m, be positioned to face a more-or-less southerly aspect and be positioned with a clear flight path to the bat box entrance. A suitable model of bat box would be the Habibat 003 bat box.

Bird boxes should be located at a height of at least 3m, be positioned in a sheltered location and be positioned with a clear flight path to the bird box entrance.

Artificial lighting at the site should be kept to a minimum. Where it is required, any artificial lighting will need to ensure that the bat and bird boxes are not illuminated of any evening. Any artificial lighting should also avoid illuminating the proposed landscaping areas along the site's southern boundary.

5.4 Protected Species Recommendations

5.4.1 Breeding Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

It is therefore recommended that future development of the site including any hedge management/removal avoid taking place during the breeding bird season (March-September inclusive).

Where this is not possible, a check for breeding birds should be carried out immediately prior to the start of works by an appropriately qualified ecologist.

If during works any nesting birds are found, works should immediately stop and further advice should be sought from an appropriately qualified ecologist. The ecologist would mark out a buffer zone around the nest, the size of the buffer zone would be determined depending upon the species encountered and the nest site location. No works would be allowed to take place within the buffer area until all young birds had fledged. Fledging of young birds would need to be confirmed by the appropriately qualified ecologist.

5.5 Temporary Badger Sett Closure

5.5.1 Badger Overview

An inactive badger sett is located immediately adjacent to the site at Target Note 11. Although appearing to be currently disused, the status of badger setts can quickly change and the sett could come back into usage by badgers in the near future.

The entrances to the badger sett are located between 1.5 m and 2.5 m from the western site boundary. Development proposals will include the construction of a new footpath close to the western site boundary. Works to construct the footpath could cause disturbance or damage to the badger sett present.

It is therefore recommended that the badger sett is temporarily closed prior to the start of works and is then reopened once construction works within proximity to this area have been completed.

The sett represents a badger 'resting place' in terms of the legal protection afforded by the Protection of Badgers Act (1992). Therefore, works to redevelop the site would need to be undertaken under a Natural Resources Wales Badger Disturbance License.

5.5.2 Timing of Badger Exclusion

Licenses to close a badger sett will generally not allow sett exclusion to take place between the 1 December and 30 June. Therefore, works to close the sett will need to take place outside of this 'closed' period. The sett would be closed within the 'open season' immediately prior to the start of construction.

5.5.3 Badger Exclusion Process

To exclude the badger sett, the licensed ecologist would need to fit specialist badger gates over the sett entrances.

The badger gates should first be set into an open position to allow badgers to get used to using it. They should remain in an open position for 1 week. Following this period, gates should be set in a 1-way position which will allow badgers to leave the sett but not re-enter. Gates should remain in a 1-way position for a minimum of 21 days before the sett is considered 'closed'.

The gates would need to be checked every three days throughout the exclusion period by the licensed ecologist or their accredited agent to ensure that they are functioning correctly and have not been tampered with. Following 21 days of exclusion of badgers from the sett (without re-entry), the sett will be classed as being successfully 'excluded' and remain closed for the relevant construction period.

As the sett would only be closed temporarily, the sett will not be excavated and will be reopened by the badger ecologist following the completion of works.

During the construction period, the badger sett would be visited at least once every three weeks by the licensed ecologist to check that the badger gates remain in place and no new badger excavations have taken place.

5.5.4 Badger Precautionary Measures

Given the likely presence of badger in the wider area, further precautionary measures are recommended during works to prevent any injury to badgers. These should include maintaining a tidy works area; fencing off of any hazardous substances and the provision of mammal ramps or trenches with battered back sides, where any excavations must be left open overnight.

Following the implementation of these measures, it is considered to be unlikely that the proposed development will have a significant negative impact upon the local badger population.

5.6 Green Infrastructure and Net Biodiversity Benefit

5.6.1 Introduction

Chapter 6 of the updated planning policy Wales (PPW) Version 12 includes key changes to planning policy in Wales including green infrastructure and net benefit for biodiversity.

The updated PPW requires planning authorities to firstly ensure that development avoids and then minimises impact on biodiversity and ecosystems and secondly that it provides opportunities for enhancement within areas identified as important for the ability of species to adapt and/or to move to more suitable habitats (Para 6.2.8).

The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design. With careful planning and design, informed by an appropriate level of assessment, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, help to overcome the potential for conflicting objectives, and contribute to health and well-being outcomes (PPW, Para 6.2.11).

A green infrastructure statement should be submitted with all planning applications. This must be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal (PPW, Para 6.2.12).

5.6.2 Net Benefit and the Step-Wise Approach

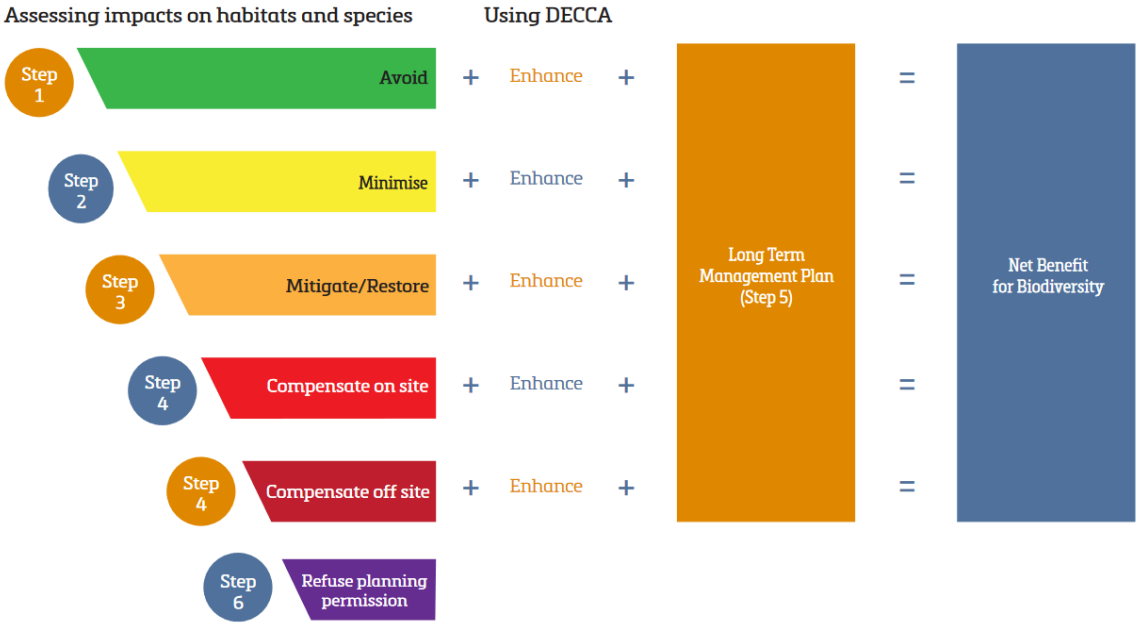
The updated PPW states that Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must work alongside nature and it must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems (PPW, Para 6.4.5)

Planning authorities must follow a step-wise approach to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for. Enhancement must be secured by delivering a biodiversity benefit primarily on site or immediately adjacent to the site, over and above that required to mitigate or compensate for any negative impact (PPW, Para 6.4.11).

As part of the development proposals at Wrexham Road, the application has considered recent changes within PPW 12 including adoption of the 'step-wise' approach to retention and incorporation of green infrastructure within the development and to ensure that the development delivers a net benefit for biodiversity.

The stepwise approach requires the design of a development to follow the mitigation hierarchy whereby the proposals should initially avoid damage to biodiversity; where this is not possible proposals should minimise the impacts on biodiversity through appropriate locational, siting and design options; where measures to minimise impact on biodiversity and ecosystems could still result in damage or loss, the proposed development should mitigate that damage. Where like for like mitigation measures are not possible, it may be necessary to consider on site compensation measures in the first instance. As a last resort, off-site compensation for unavoidable damage must be provided. Figure 1 below is taken from the updated PPW and shows a summary of the 'Step-Wise Approach'.

Figure 1- Step-Wise Approach Summary



5.6.3 Step-wise Approach to the development - Avoid, Minimise, Mitigate

As previously described in this report, habitats at the study site are largely considered to be of limited biodiversity value with the main body of the site comprising of cattle grazed, species-poor, modified grassland. Land around the complex of farm buildings comprises principally of bare ground with some patches of common ruderal vegetation.

The features of greatest biodiversity value are considered to be the hedgerows located around the perimeter is the site. Other features of biodiversity value include the two small pockets of existing woodland located at the south-west and south-east corners of the site (Target Notes 10 and 12).

Wherever possible, the proposed development has avoided impacts upon identified key habitat features (the hedgerows and woodland habitats). The development will not adversely affect any designated sites.

Some short lengths of hedgerow will need to be removed in order to provide appropriate site access. However, in line with the step-wise approach, efforts to avoid and minimise impacts upon hedgerows and other features of biodiversity value have been made, whilst still permitting a developable site to be designed. Where impacts on hedgerows cannot be avoided or minimised, these will be mitigated and compensated through on-site habitat creation.

The site principally comprises of agriculturally improved grassland and is therefore of limited ecological value. Most of the development will be on this habitat type, thereby limiting significant impacts on biodiversity. The proposals will avoid impacts to trees located on the site perimeter and the adjacent pockets of woodland.

With regards to bat foraging and commuting habitat, the development will provide new corridors of habitat including wildflower grassland, scrub, waterbodies and woodland which will be created around the southern perimeter of the site linking the two retained pockets of woodland. These corridors will provide enhanced commuting habitats for bats, suitable bird nesting opportunities as well as providing additional foraging opportunities for bats and birds. Details of the landscaping scheme along with proposed management prescriptions will be provided at the Reserved Matters stage.

A sensitive lighting scheme would also be produced at the Reserved Matters stage, to ensure that appropriate dark corridors are retained along the proposed landscaping/habitat corridors on the site southern boundary.

To avoid impacts on nesting birds, vegetation clearance would be undertaken outside of nesting season (March to August inclusive). Where this is not possible, a pre-works check of vegetation will be completed immediately prior to clearance.

To avoid impacts to badger, an inactive, outlier badger sett located beyond the south west boundary of the site would be temporarily closed during construction.

5.6.4 Site Enhancements (Net Biodiversity Benefits)

As previously described, landscaping proposals will include new bands of habitat including wildflower grassland, scrub, wetland and woodland which will be created along the southern perimeter the site providing a corridor habitat running east to west along the edge of the site.

The corridor habitat will link existing pockets of woodland located to the east and south west of the site and will also include SUDS features which can be designed to be of benefit to biodiversity.

The new band of habitat will appreciably enhance the existing southern boundary feature at the site by providing a high value green corridor. The corridor will be located along the existing boundary hedge habitat and adjacent pockets of woodland.

These landscaping proposals will more than compensate for the loss of areas of improved, cattle pasture and the loss of short sections of hedgerow to provide site access. The landscaping proposals will therefore deliver a net biodiversity benefit.

Habitats will be protected and managed through a long-term landscape and habitat management plan for the site. The detail of this can be finalised at the Reserved Matters stage.

As previously described, enhanced bat roosting and bird nesting opportunities will be provided through the delivery of a bat and bird box scheme.

Taking the above into account, the proposed development provides a significant net benefit for biodiversity. The development will ensure that ecological resilience is maintained within the wider landscape, with the provision of new/enhanced corridors of green infrastructure running around the perimeter of the site, linking up with the retained pockets of woodland habitat located to the south-east and south-west of the site.

7 Appendix

Photographs

Photograph 1- Yard and Building at Target Note 2



Photograph 2- Main farmyard looking towards cattle shed at Target Note 3



Photograph 3- Interior of machine shed (Target Note 2)



Photograph 4- Main pasture field looking south



Photograph 5- Main pasture field looking along southern boundary



Photograph 6- Community woodland at Target Note 10



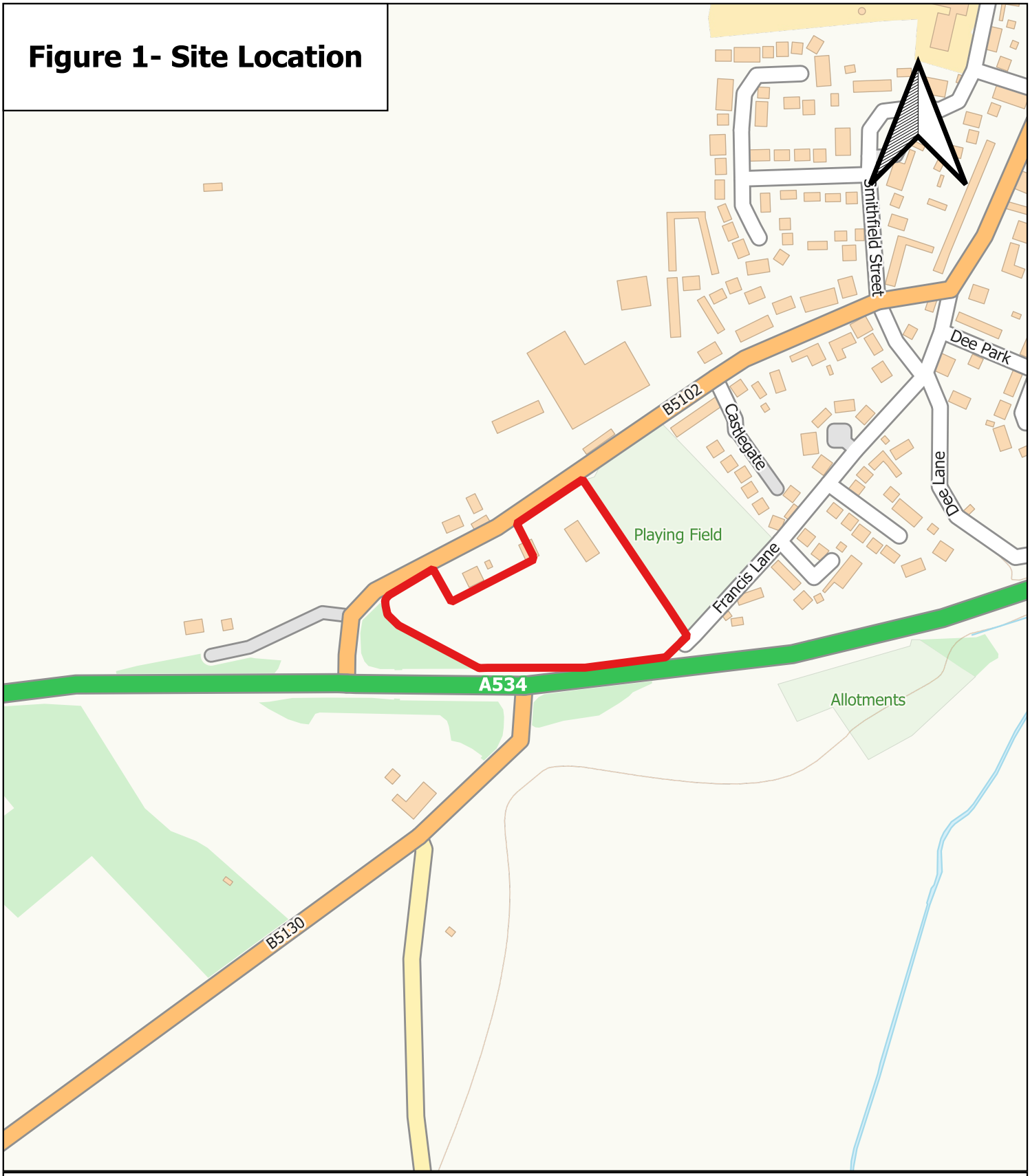
Photograph 7- Inactive Badger sett at Target Note 11



Photograph 8- Adjacent copse of woodland at Target Note 12



Figure 1- Site Location



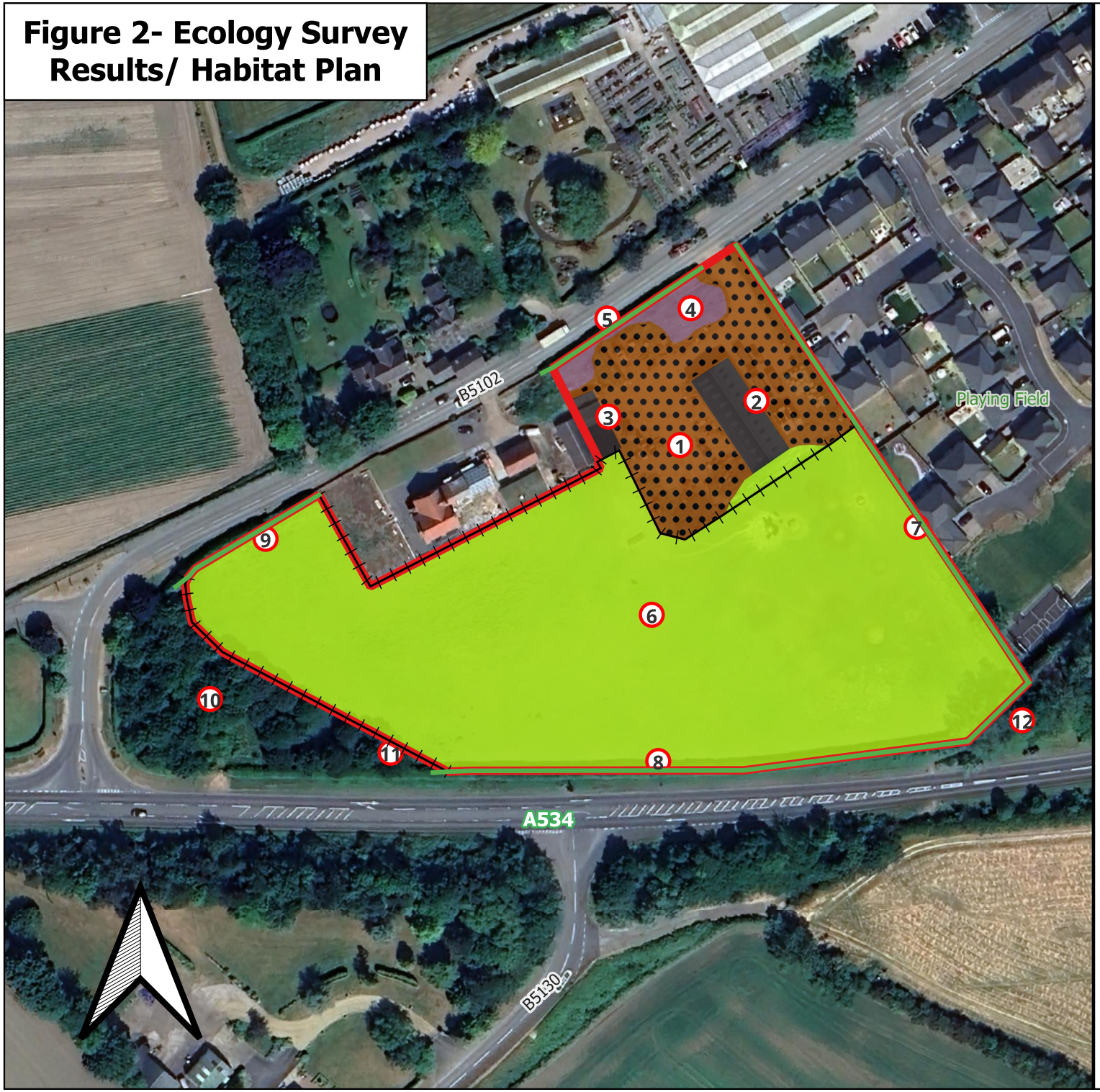
Key

0 50 100 150 200 250 m

Study Site

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Figure 2- Ecology Survey Results/ Habitat Plan



KEY

- Study Site
- Target Note
- Hedgerow
- Fence
- Buildings
- Bare Ground
- Ephemeral/Ruderal Vegetation
- Modified Grassland

0 20 40 60 80 m

Map data ©2024 Google