

Preliminary Ecological Appraisal Report

Lower Eastfield Farm, Thurgoland

J & J Miller

SENSITIVE/CONFIDENTIAL
contains badger locations

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Summary

This report is produced to inform J & J Miller of potential ecological constraints associated with the proposed development site.

Methodology

The report is based on a desk study of designated wildlife sites and records of protected or notable species, and an extended Phase 1 Habitat Survey and Bat Roost Suitability Assessment carried out in August 2019.

Findings - Key Points

The Site is occupied by common, species poor habitats which should not pose a significant constraint to development.

Detailed survey has demonstrated the presence of several bat roosts and, subject to planning approval, a Natural England mitigation licence will be required to derogate offences in relation to bats. Further survey may be required in support of a licence application.

Standard precaution to minimise impacts and potential enhancements have been recommended.

Introduction

1. Brooks Ecological Ltd was commissioned by J & J Miller to carry out a Preliminary Ecological Appraisal (PEA) of land at Lower Eastfield Farm, Eastfield Lane, Thurgoland, S35 7ES (centred at grid reference SE 29862 02745).
2. This report is produced with reference to British Standard BS:42020 'Biodiversity Code of Practice for Planning and Development' and the CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

Scope

3. 'The Site' comprises a collection of farm buildings as defined in Figure 1 below.
4. The assessment uses a 2km area of search around the Site for records of protected and notable species and locally or nationally designated wildlife sites.

Figure 1 The Site (red line boundary).



Purpose of a PEA

5. A PEA is an *initial assessment* of the baseline for a proposed development site and establishes whether the Site is likely to be constrained by ecology, and whether more information is needed to identify the ecological baseline.
6. The subsequent Preliminary Ecological Appraisal Report (PEAR) is intended to give early guidance to a developer and assist with the early stages of project planning and design. Where a site is not complex or constrained, and no additional ecological input is necessary the PEAR may be sufficient and suitable to support a planning application.

Desk Study

7. The Site is set within a rural location some 1.6km north-east of Thurgoland, South Yorkshire. It is surrounded by agricultural pasture on all but the northern boundary where Eastfield Lane is found.
8. The wider landscape is dominated by agricultural pasture set amongst broadleaved woodland stands and scattered settlements. Further afield, the South Pennine Moors extend beyond to the west with the larger settlements of Barnsley and the outer suburbs of Sheffield and Rotherham to the north-east, south and south-east, respectively.

Water Bodies

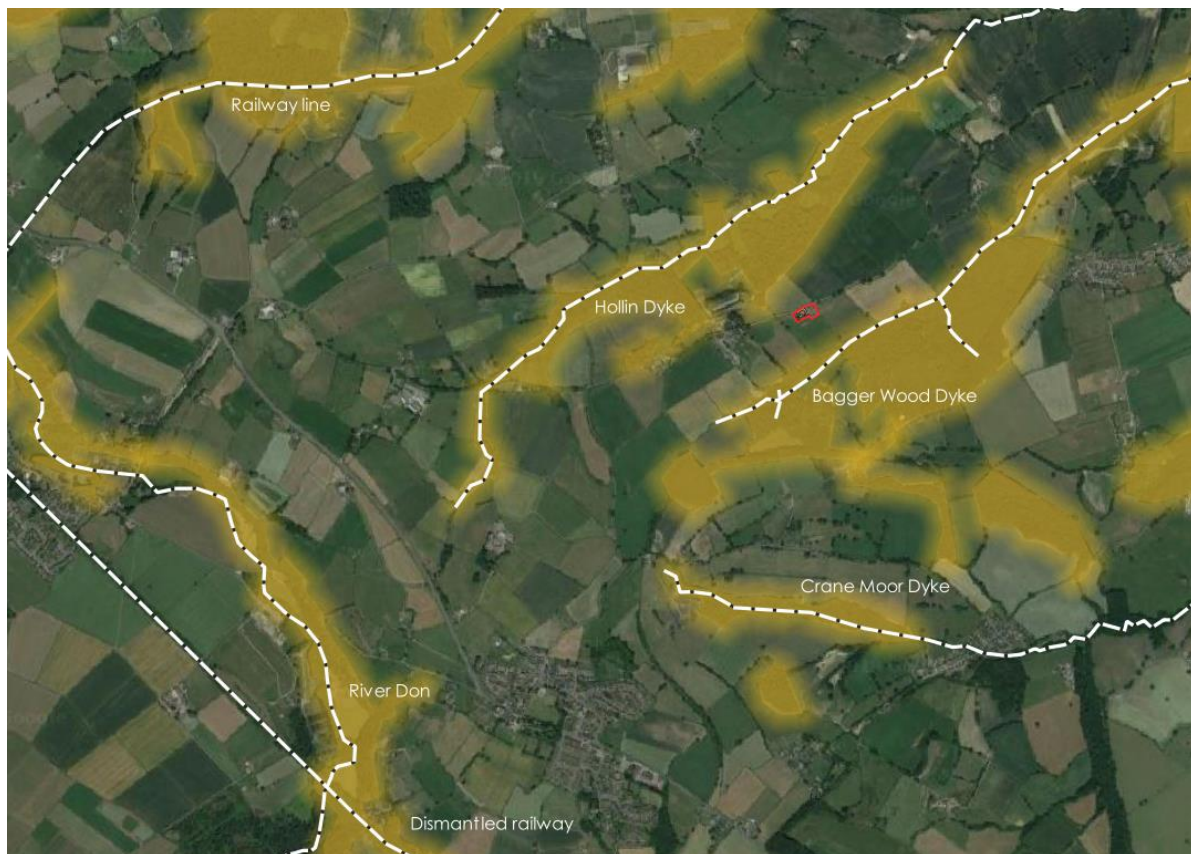
9. No waterbodies are seen on mapping within 500m.

Wildlife Corridors

10. Bagger Wood Dike and Hollin Dike sit 200m south and 400m north of the Site respectively. These comprise the most prominent corridors within close proximity and are both flanked by associated woodland, some of which is classified as ancient replanted woodland. Despite their proximity to the Site, the scale and nature of development poses minimal risk of impacting upon these corridors. Both watercourses are in the upper River Don catchment and ultimately flow into the river a good 20km downstream.
11. The River Don itself meanders across the landscape c.2.2km southwest of the Site, though at this point there are no functional links between the Site and the river due to topography.

12. The railway line and dismantled railway line, located 1.6km to the north-east and 2.6km to the south-west, respectively, provide minor wildlife corridors across the wider landscape.
13. There are several stands of higher value broadleaved woodland across the landscape, particularly focussed around nearby waterbodies.

Figure 2 Analysis of wildlife corridors and higher value habitat in relation to the Site.



Designated Sites

Statutory Designations

14. A search has been made to identify any nationally designated sites within a 2km radius of the Site, and for internationally designated sites within a 10km radius. The results are shown in the below table.

Table 1 Statutory Designated Sites.

Site Name	Distance from Site	Designation	Summary Interest
South Pennine Moors	7.5km SW	Special Area of Conservation (SAC)	Primary Habitats – European dry heath, blanket bog, old sessile oak woodlands with Ilex and Blechnum. Secondary Habitats – Northern Atlantic wet heaths with Erica tetralix, transitional mires and quaking bogs.
Peak District Moors (South Pennine Moors Phase 1)	7.5km SW	Special Protection Area (SPA)	Annex 1 species - Golden plover, merlin and short eared owl. Important numbers of peregrine, lapwing, dunlin, snipe, curlew, redshank, common sandpiper, whinchat, wheatear, ring ouzel and twite.

15. There are no anticipated impacts on the SAC and SPA given the lack of a functional and hydrological links, distance from, and small size of the Site.

SSSI Impact Risk Zones (IRZs)

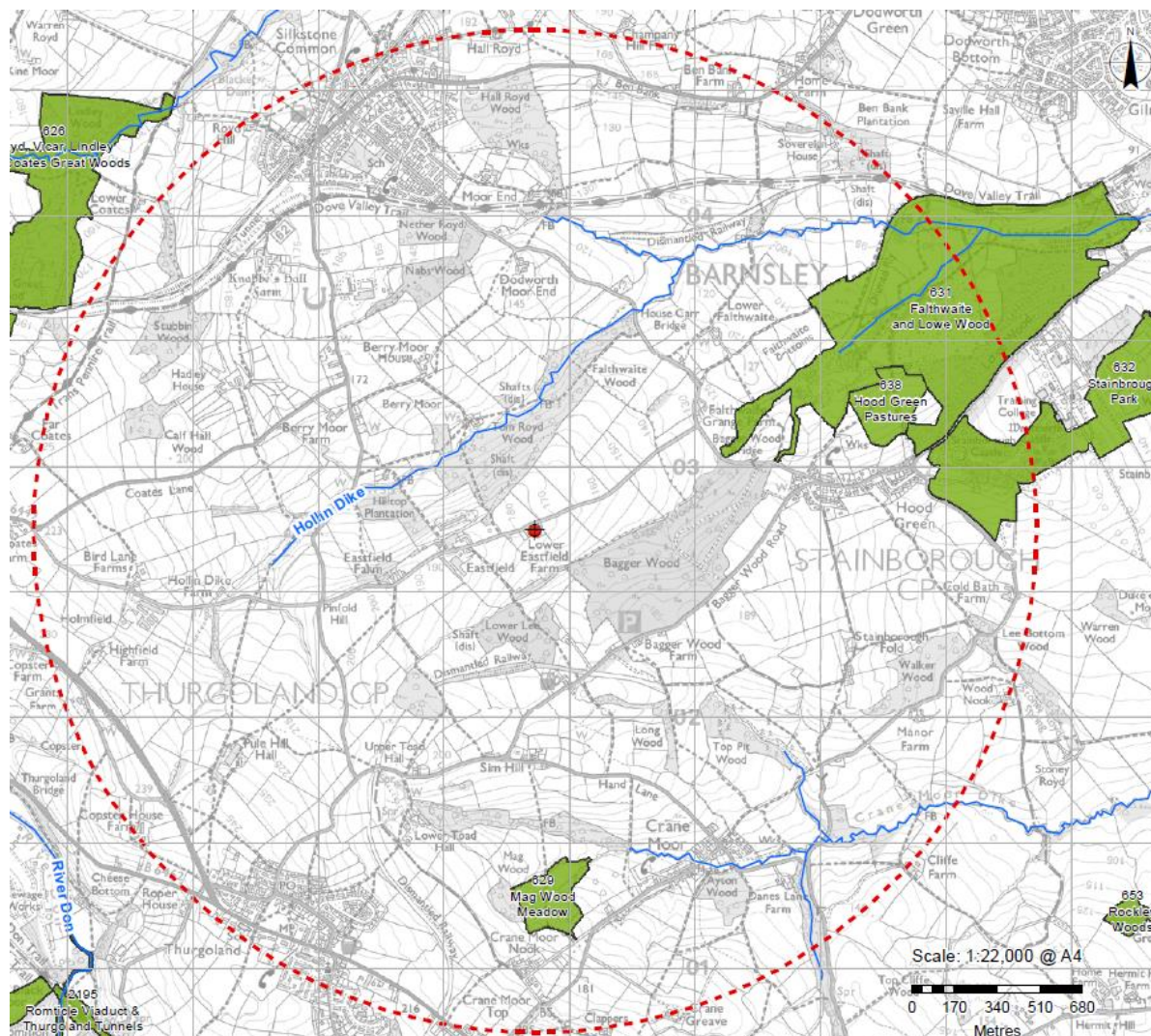
16. The Site falls within the 5km impact risk zone for the Pye Flatts Meadow SSSI. The proposed development does not meet any criteria requiring the Local Planning Authority to consult Natural England in relation to potential impacts.

Non-Statutory Designations

17. There are four locally designated Local Wildlife Sites (LWS) sites within 2km of the Site.
- Falthwaite and Low Wood LWS c.860m north-east
 - Hood Green Pastures LWS c.1.5km north-east
 - Stainborough Park LWS c.1.5km east
 - Mag Wood Meadow LWS c.1.6km south

18. There are no anticipated impacts on these LWS's given the lack of a functional link, distance from, and small size of the site.

Figure 3 Locally designated sites (provided by Barnsley Metropolitan Borough Council).



Survey

Method

19. The survey was carried out during August 2019¹ and followed Phase 1 habitat survey methodology (JNCC, 2010).

Limitations

20. Whilst the majority of the Site was accessible, small areas are occupied by dense impenetrable vegetation or secured behind heras fencing hindering close inspection.

Results

21. The Site is occupied by a collection of disused farm buildings and associated curtilage.



Figure 4

Characteristic view of the Site.

22. The following habitats were identified within the Site and on its immediate boundaries:
- Bare ground with short ephemeral vegetation
 - Tall ruderal/scattered scrub
 - Introduced shrub (garden) and amenity grass
 - Buildings
 - Trees

¹ This Report has been prepared during September 2019 following a visit to the site in August 2019 and our findings are based on the conditions of the site that were reasonably visible and accessible at that date. We accept no liability for any areas that were not reasonably visible or accessible, nor for any subsequent alteration, variation or deviation from the site conditions which affect the conclusions set out in this report.

Bare ground with short ephemeral vegetation

23. Curtilage surrounding the buildings comprises crushed gravel and hardcore, colonised by an array of common grasses, ephemeral and short perennial species.
24. Forbs noted across the Site include small willowherbs, ribwort & greater plantain (*Plantago* spp.), knotgrass (*Polygonum aviculare*), prickly sow thistle (*Sonchus asper*), forget-me-not (*Myosotis* sp.), white clover (*Trifolium repens*), cleavers (*Galium aparine*), rose (*Rosa* sp.), ragwort (*Senecio jacobaea*), dandelion (*Taraxacum officinalis* agg.), foxglove (*Digitalis purpurea*), nipplewort (*Lapsana communis*), sedum, groundsel (*Senecio vulgaris*), Canadian fleabane (*Erigeron canadensis*) and ivy leaved toad flax (*Cymbalaria muralis*).
25. In less disturbed areas, where soils are deeper, grasses are noted to dominate, these principally being Yorkshire fog (*Holcus lanatus*) and cock's-foot (*Dactylis glomerata*) with bents (*Agrostis* spp.), false oat grass (*Arrhenatherum elatius*), red fescue (*Festuca rubra* agg.) and meadow grasses (*Poa* spp.), alongside weeds and stray cereal crops such as wheat and wild oat.

Tall ruderal / scattered scrub

26. Along the Site's boundaries, and within pockets next to buildings where disturbance or management is limited, are areas occupied by common competitive species such as stinging nettle (*Urtica dioica*), creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium vulgare*) and bramble (*Rubus fruticosus* agg.).

Introduced shrub (garden) and amenity grass

27. The former gardens associated with the house include an area of now unmanaged amenity grass. The cessation of management has allowed a range of coarse grasses to take hold at the expense of typical, finer lawn species. The sward composition reflects that recorded above.
28. Teasel, lavender, rose, pansies, lilac, foxglove, lamb's ear and fuchsia along with other typical garden plants are found bordering the amenity grass and in planters at the front of the house.

Buildings

29. Six buildings are found on the Site, these differing in use, style and construction. A brief description is found below. These buildings are discussed further in the faunal section.
30. Buildings are all associated with farm use, these including typical agricultural storage barns, traditional stone barns and stone cow sheds found along with a two-storey farmhouse.

31. Evidence of current and historic bird nesting was seen during the Site visit in all buildings.



Figure 5a

Building 1



Figure 5b

Building 3 – wall partly collapsed



Figure 5c

Building 5 - Farmhouse

Trees

32. The Site includes three trees, all associated with the house and garden, comprising apple (*malus* sp.), pear (*Pyrus* sp.) and cherry (*Prunus* sp.).

Figure 6 Showing pear and cherry trees.



Semi-natural Habitats Summary Evaluation

33. The Site is occupied by a range of common habitat types typical of a Site of this nature. Habitats present develop readily and are of limited ecological value.

Fauna

Amphibians

34. Nine records of great crested newt have been returned, along with records of common frog, smooth newt, palmate newt and common toad. All records are well over 1km from the site, many relating to the nearby LWS's.
35. The Site provides areas of suitable amphibian terrestrial habitat but there are no standing water bodies on Site or within 500m of its boundary. Occasional presence of common frog and toad can be assumed, but the likely absence of the protected great crested newt can be reasonably concluded based on the absence of potential breeding habitat within influencing distance.

Bats

Records

36. The local records centre returned 31 bat records from within the search radius, the majority of which relate to common pipistrelle and Natterer's bats, with records of soprano pipistrelle, brown long eared, noctule, Leisler's and indeterminate species. Of those records, nine relate to roosts or possible roosts. The closest roosts are 1.5km east of Stainborough Park LWS (Natterer's and soprano pipistrelle roost, 2004) and 1.5km north west (common pipistrelle, 2002).
37. South Yorkshire Bat Group returned 95 records within the search radius, relating to common and soprano pipistrelle bats, whiskered, Daubenton's, Natterer's, Noctule, Leisler's and indeterminate species. Of these, 35 relate to roosts largely associated with disused railway tunnels some 2.5km south with recent records for Daubenton's, brown long eared bats, Natterer's and common pipistrelle bats here.

Roost Suitability Assessment

38. Six buildings are found within the Site's red line boundary. Their style and construction varies as does their potential to support roosting bats.

Buildings 1 & 2

39. These are typical agricultural storage barns, predominantly of a breezeblock, wood and steel construction with partly open sides. Timber frames or steel beams with asbestos sheeting make up the roof structure.
40. These barns offer little shelter and lack any roosting features and as such are assessed as providing negligible potential for roosting bats.



Figure 7

Building 1

Building 3

41. This is a partly collapsed double height structure with double pitched roof. Walls are either breezeblock or sandstone cavity walls with an open side to the south. Timber frames support the roof which is slate construction with stone ridge tiles.
42. Wooden beams are seen to the northern side of the barn supporting the roof structure. Where these join the eastern wall, breaks in the stonework and missing pointing appears to lead into the internal cavity of the wall, providing shelter for crevice roosting species such as common pipistrelle. Similar features are seen to the eastern elevation where access into the cavity can be gained.
43. Entrance points into the eastern cavity wall are found lengthways where the wall has partly collapsed, also providing crevices suitable for roosting.
44. Missing or lifted tiles are seen across the roof, which lead to the structures open interior. Occasionally enough shelter may be provided between two tiles which could support sporadic roosting.
45. This building is likely to offer little shelter due to its partial collapse and open southern side, with water ingress and exposure to the elements reducing its suitability for roosting bats. As such the building is assessed as having low suitability for roosting bats.



Figure 8

Building 3

Building 4

46. This comprises a single storey L-shaped red brick and stone-built building with double pitched roof. The roof is of slate construction with stone ridges. The interior is accessible through open doors, windows and ventilation cylinders passing through the walls.
47. Missing mortar is found to the verges and between brickwork allowing access into small cavities that may provide potential roost features (PRFs).
48. Tiles are found to be displaced in areas along the roof, again providing crevices which may provide suitable shelter for single or low numbers of bats.
49. This building is assessed as having low suitability for roosting bats.



Figure 9

General view of building 4

Building 5

50. Building 5 is a farmhouse made up of two distinct parts – a taller two storey stone section with slate roof to the west and a shorter two storey sandstone section with concrete tiles to the east.
51. Exposed gables are found to the west and eastern elevations along with a stepped gable between the two sections. The eastern verge is rendered and well-sealed with the above tiles and no entry points or crevices are seen between the two.



Figure 10

Gaps at verge.

52. Exposed stonework is found to the western verge, with missing pointing along the verge potentially allowing access into spaces within the roof structure or at the wall tops. Along this and other elevations, pointing is also missing, creating small crevices between stonework that may provide PRFs for crevice dwelling species.



Figure 11

Gaps within stonework on southern elevation of house.

53. Stonework is seen to be worn and missing at a window lintel, leading to internal cavities within the wall, providing a PRF.
54. This building has multiple features that have the potential to support higher numbers of bats on a frequent basis. As such, the farmhouse is assessed as having moderate suitability for roosting bats.

Building 6

55. Building 6 encompasses the C-shaped traditional two storey barn, comprising mainly sandstone construction with stone or slate roof. A single storey red-brick section is seen to the east with a breezeblock extension. The barn's interior can be accessed through open doorways and windows.
56. Erosion of the sandstone bricks has produced small holes and gaps which allow access into the barn's cavity walls. On occasion these are seen to be filled with bird nesting, but also may provide suitable shelter for roosting bats. These are seen frequently on the south elevation of the barn.
57. Similarly, missing mortar along most elevations appears to allow access into the cavity wall and wall tops, which may provide PRF's. Suitable PRF's may also be accessed from the barn's interior where entry to the cavity walls is possible due to missing stonework and mortar.
58. The internal roof structure comprises timber joists and beams, which is mainly unlined. Where wooden beams and rafters cross and meet with the above slate, stone or lining, voids are created which provide suitable roosting or perching features for void dwelling species such as brown long-eared bats.
59. This barn is assessed as providing moderate suitability for roosting bats.

Figure 12 Showing exterior and interior (where safe to access) of Building 6.



Figure 13 Buildings and their suitability for roosting (green = negligible, yellow = low, orange = moderate).



Activity

60. The Site provides habitat which is likely to attract low level foraging by common and widespread species, though considering the surrounding habitat, local bat populations are highly unlikely to have any dependence on the Site in its current form for commuting or foraging. With mindful planning of the development, foraging potential can be retained in the long term. Further survey is not considered necessary in support of this conclusion.

Birds

61. Over 400 records of birds are held by Barnsley Biological Records Centre, none of which originate from the Site itself. The records list includes a range of relatively common, albeit declining bird species, listed on various BAPs or the red and amber BOCC lists. Fieldfare and brambling are the only species listed on Schedule 1 of the Wildlife and Countryside Act recorded within 2km of the application Site.
62. Nesting was noted in all buildings on Site, including tits in the farmhouse and lower storey eastern arm of Barn 6, numerous swallow cups in barns 4 and 6, including some still active at the time of bat survey in early September, and scattered pigeon nests.

- 63. Evidence of barn owl could not be found during the survey, though some sections of barns were inaccessible.
- 64. Given the Site's small size, current land use and simple habitats present, full Breeding Bird Surveys are not considered necessary. Instead, standard precaution should be undertaken in relation to any demolition of the buildings and vegetation clearance works.

Badger

- 65. Several badger records have been returned from the local records centre and South Yorkshire badger group, with recent sett records in the nearby woodlands. However, the Site area is restricted to land principally occupied by buildings and associated curtilage, offering little value to badgers.
- 66. No evidence of badger activity could be found on Site at the time of survey and their likely absence is concluded.

Reptiles

- 67. There is a single grass snake record from 1km south-east of the site from 2015. While it is acknowledged that grass snake could occasionally occur within the Site, the habitat it provides is considered sub-optimal, lacking the structure required by reptiles.
- 68. Further survey with regard to this group would be disproportionate to the risk of impacting individuals, but standard precautions should be put in place during Site clearance.

Hedgehogs

- 69. Hedgehog are recorded in the search radius and may occur within the Site. Hedgehogs are listed under Section 41 of the NERC Act and are declining in our countryside. Suitable precautions should be put in place to ensure this species is not impacted by the proposals.

Invasive Non-Native Species (INNS)

70. INNS are species listed on Schedule 9 of the Wildlife and Countryside Act (1981), for which it is an offence to cause or allow it to grow in the wild. No such species were noted at the time of survey².
71. However, there is some risk of the Site supporting undetected INNS based on the following factors:
- Areas of site inaccessible to survey
 - Suboptimal survey season
 - Potential previous management which may have obscured viable material
 - Potential for tipping of material
72. Should further assurances be needed in relations to INNS you should commission a dedicated Invasive Weed Survey.

Conclusions and Recommendations

73. Habitats on Site are common and relatively species poor. Their presence should not pose a constraint to the Site's redevelopment. Although limited on Site, effort should always be made to retain existing trees. Where this is not feasible, their loss should be compensated for through new native species planting elsewhere.
74. Further survey has been carried out with respect to roosting bats, highlighting the presence of five roosts occupied by common pipistrelle and brown long eared bats. The full results of these surveys will be required to support a full planning application. Where roosts are identified, a Natural England mitigation licence will be required to derogate the offence of destroying, modifying or disturbing a roost. This can only be secured once planning permission has been granted, and may require the support of further survey.
75. As with most sites, the standard precaution in relation to birds would apply. To prevent the proposed works impacting on nesting birds, demolition of buildings or clearance of vegetation will need to be undertaken outside of the breeding bird season which is 1st March – 31st August inclusive. Any clearance that is required during the breeding bird season should be preceded by a nesting bird survey to ensure that the Wildlife

² Whilst our ecologists are trained in the identification of INNS, this report is not a dedicated invasive species survey. Detectability of invasive plant species is seasonally variable and can be affected by several other factors which may not be apparent to the surveyor, so whilst every effort is made, a conclusive determination of status or extent is not possible through preliminary survey. As the presence of invasive species can generate significant costs to development the client may wish to instruct a dedicated invasive species survey prior to entering into contracts.

and Countryside Act (1981) is not contravened through the destruction of nests and that any active nests are identified and adequately protected during development.

76. Clearance of vegetation and rubble/debris from Site should be carried out in a directional manner and preceded by a fingertip of suitable refugia to remove any protected or notable species from Site.
77. The NPPF makes it clear that development should seek to enhance biodiversity beyond mitigating or compensating for specific impacts. In this case provision of bat and bird boxes in renovated buildings, planting of species rich native hedges, and the use of flowering lawns in place of standard amenity turf provide suitable enhancement opportunities.

Appendices

1. Extended Phase 1 Habitat Plan
2. Explanatory Notes and Resources
3. Bat Activity Survey Rationale
4. Information on Legislation/Protection

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Appendix 1 Extended Phase 1 Habitat Plan



Appendix 2 Explanatory Notes and Resources Used

Site Context

Aerial photographs published on commonly used websites were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This approach can be very useful in determining if a site is potentially a key part of a wider wildlife corridor or an important node of habitat in an otherwise ecologically poor landscape. It can also identify potentially important faunal habitat (in particular ponds) which could have a bearing on the ecology of the application site. Ponds may sometimes not be apparent on aerial photographs so we also refer to close detailed maps that identify all ponds issues and drains.

Designated Sites

A search of the MAGIC (Multi-Agency Geographic Information for the Countryside) website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. Sites of Special Scientific Interest [SSSI's]) as well as many non-statutory listed habitats (e.g. ancient woodlands and grassland inventory sites). It is a valuable tool when considering the relationship of a potential development site with nearby important habitats. In addition, information from the local record holders was referred to on locally designated sites.

Functional linkage with off-Site habitats

When assessing these we consider whether the Site could be functionally linked to them, considering links such as;

- Hydrological links - is the Site upstream downstream, or could ground water issues affect it?
- Physical links - is the site in close proximity and could it be directly or indirectly affected by construction and operational effects? Conversely it may be that despite proximity major barriers separate the two.
- Recreational links - do footpaths and roads make it likely that increased recreational pressure could be felt?
- Habitat links - is the site part of a network of similar habitat types in the wider area? These could be joined by linear corridors or could simply be 'stepping stones of habitat of similar form or function.

Method

Phase 1 habitat survey methodology (JNCC, 2010). This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). The survey method was "Extended" in that evidence of fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017).

Faunal Appraisal

This section first looks at the types of habitat found on Site or within the sphere of influence of potential development, then considers whether these could support protected, scarce or NERC Act 2006 Section 41 species (referred to collectively as 'notable species').

Records of notable species supplied from a 2km area of search are used to inform this appraisal.

We discuss further only notable species or groups which could be a potential constraint due to the presence of suitable habitat and their presence (or potential presence) in the wider area. We screen out and do not present accounts of notable species or groups which do not meet these criteria – in some cases it may be necessary to explain this reasoning.

Bat roosting potential is classified according to the following criteria set out below, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

Bat Roosting Suitability of Buildings and Trees

Suitability	Criteria
<i>Negligible</i>	Negligible habitat features on site likely to be used by roosting bats.
<i>Low</i>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
<i>Moderate</i>	A structure or tree with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
<i>High</i>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protections, conditions and surrounding habitats.

Evaluation

In evaluating the Site, the ecologist will take into account a number of factors in combination, such as;

- the baseline presented above,
- the site's position in the local landscape,
- its current management and
- its size, rarity or threats to its integrity.

There are a number of tools available to aid this consideration, including established frameworks such as Ratcliffe Criteria or concepts such as Favourable Conservation Status. Also of help is reference to Biodiversity Action Plans in the form of the Local BAP and Section 41 of the NERC Act (2006) to determine if the site supports any Priority habitats or presents any opportunities in this respect.

The assessment of impacts considers the generic development proposals from which potential effects include:

- Vegetation and habitat removal
- Direct effects on significant faunal groups or protected species
- Effects on adjacent habitats or species such as disturbance, pollution and severance
- Operation effects on wildlife such as noise and light disturbance

Consideration is given to the Local Biodiversity Action Plan (LBAP), which for this site is the 'Barnsley Biodiversity Action Plan'.

Species/Group	Habitat
Hedgehog	Mixed deciduous woodland
Bats	Upland oakwood
Water Vole	Wet woodland
Otter	Parkland and veteran trees
Grey Partridge	Traditional orchard
Bittern	Scrub
Kestrel	Coniferous woodland
Little Ringed Plover	Hedgerows
Lapwing	Arable field margins
Barn Owl	Acid grassland
Skylark	Neutral grassland
Tree Sparrow	Floodplain grazing marsh
Twite	Amenity grassland
Great Crested Newt	Upland heathland
Salmon	Lowland heath
Bullhead	Reedbeds
White-clawed Crayfish	Lowland fen
Glow Worm	Upland flushes, fens and swamps
Dingy Skipper	Rush pasture
Bluebell	Blanket bog
	Standing water and ponds
	Running water, rivers & streams
	Open Mosaic Habitats on Previously Developed Land
	Built environment and gardens

Appendix 3 – Bat Activity Survey Rationale

The Bat Conservation Trust Guidelines (BCTG) (Collins 2016) is now widely accepted as providing a basis and rationale for scoping and conducting bat surveys. It is acknowledged that the guidelines provide a wealth of background and are a very useful tool in standardising approaches to survey, it is also felt that an over reliance on some of the guidelines within this document can result in the provision of complicated surveys where they have significant consequences for the cost, or timescale of a large project, but could never deliver positives for bat conservation.

Taking the BCTG document as a whole, Chapter 2 helps the reader understand whether or not surveys are required, and that in the context of planning and development survey is required in relation to ensure;

- the avoidance of legal offences, and;
- the provision of a sufficient level of information - such that will allow the Local Planning Authority to make an informed decision on the proposals and their potential impacts on the Favourable Conservation Status (FCS) of bats.

Attendance at seminars presented by, and discussions with, those involved in production of the BCTG document has emphasised the point that it is within the remit of the consultant ecologist to make a decision on the necessity and scope of surveys - they will use the guidelines in doing so but are not in any way bound by them: this is reflected in Section 1.1 of the guidelines -

'The Guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. However, in this scenario an ecologist should provide documentary evidence of (a) their expertise in making this judgement and (b) the ecological rationale behind the judgement. '

Such decisions require a consideration of the potential of the project to impact on bat habitat, alongside analysis of the value of habitat on and around the site and of local records and the likelihood that bats might occur in significant numbers. Our reports aim to present information on how we have arrived at our decision on the Site, what assumptions we have based this on, and where further survey is recommended we indicate what the objective of this survey should be and how best this would be achieved.

At this Site, habitats present are likely to support low level foraging by a range of common and widespread species but its location, in close proximity to similar or higher value habitat mean local bat populations are unlikely to have any dependence on it in its current form for foraging or commuting. Further survey in support of this conclusion is not necessary.

This assessment has been made by Sam Kitching who has 7 years' experience of scoping and delivering bat surveys and has carried out innumerable activity surveys in very similar sites to this one. He is registered to use the Bat survey Class Licence (Level 2) and has delivered numerous European Protected Species Mitigation Licences.

Appendix 4 Wildlife Legislation, Policy and Guidance

This is not an exhaustive list but sets out briefly the relevance of Legislation, Policy and Guidance in terms of planning applications and this assessment.

Legislation

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive).

Provides framework at an international (EU) level for the consideration / protection of European Protected Species (EPS), and habitats through the designation of sites.

Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive) and The Ramsar Convention on Wetlands of International Importance (1971)

Provides framework at an international (EU) level for the consideration / protection of important bird populations and the sites on which they are dependant.

The Conservation of Habitats and Species Regulations (2010)

This transposes 1) into UK law and provides the basis on which all EPS are protected and impacts on them can be licensed in the UK.

The Wildlife and Countryside Act (1981) as amended

This provides the basis on which UK species are legally protected or restricted and confers protection on Sites of Special Scientific Interest SSSIs. It contains annexes of plants and animals which are legally protected as well as those which are considered to be invasive or harmful. It provides the basis on which impacts on such species can be licensed in the UK and provides controls on work on or near SSSIs.

The Countryside and Rights of Way Act 2000 (CROW)

Provides a statutory basis for nature conservation, strengthens the protection of SSSIs and UK protected species and requires the consideration of habitats and species listed on the UK and Local Biodiversity Action Plans (UKBAP / LBAP).

Natural Environment and Rural Communities Act 2006 (NERC)

Sets out the responsibilities of Local Authorities in conserving biodiversity. Section 41 of the Act requires the publishing of lists of habitats and species which are "of principal importance for the purpose of conserving biodiversity". At present these largely reflect those making up the UKBAP lists.

Hedgerows Regulations (1997)

Define and provide protection for Important Hedgerows.

Protection of Badgers Act (1992)

Protects badgers from persecution, this includes excavation / development in the proximity of setts.

Protected Sites

Statutory EU / International Protected Sites

Special Areas of Conservation (SACs); and Special Protection Areas (SPAs) and Ramsar Sites contain examples of some of the most important natural ecosystems in Europe. Work on or near these sites is strictly protected and Local Authorities will be expected to carry out 'Appropriate Assessment' of development in proximity of them. In this case there is often an increased burden on the developer in relation to provision of information and assessment.

Statutory UK Protected Sites

Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs) all receive strict protection under UK legislation. Work in or in proximity to these sites would be restricted with any needing to be agreed with Natural England. Natural England now provide guidance on the nature of development which could impact on SSSIs through Impact Risk Zones.

Locally Protected Sites

Local Authorities have a variety of protected wildlife sites designated at a local or regional level. These are gradually being brought under the banner of Local Wildlife Sites (LWS) but at present a plethora of different designations exist - all subject to local policy.

Protected Species

European Protected Species

A number of species (most relevantly bats, great crested newts [GCN], and otters) receive strict protection from killing, injury and disturbance under The Conservation of Habitats and Species Regulations (2010). Protection is also conferred on the habitats on which they rely such as roost space in the case of bats and ponds and fields etc. in the case of GCN.

UK Protected Species

A number of species (including bats, GCN, water vole and white clawed crayfish) are strictly protected under The Wildlife and Countryside Act (1981) as amended, from killing, injury, disturbance and damage or destruction of their resting places etc. Certain species (such as reptiles) and some birds (such as barn owl) receive partial protection e.g. at certain times of the year or from certain activities only. All nesting bird species are protected from damage or destruction of their nests - whilst active.

Invasive species

Schedule 9 of the Wildlife and Countryside Act (1981) as amended, lists these species and makes it an offence to cause or allow their spread in the wild. This often has impacts on development and planning in relation to the presence of invasive plant species such as: Himalayan balsam (*Impatiens glandulifera*), Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*).

Planning Policy / Guidance

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework was updated in July 2018. The most relevant paragraphs from the NPPF are set out below.

The approach to assessing the natural environment is now embedded within the definition of what 'sustainable development' is and this falls under one of three objectives of the planning system – the 'environmental objective' applying in this case. Paragraph 8c (P8c) of the NPPF states that sustainable development should *"contribute to protecting and enhancing our natural environment"* and *"help to improve biodiversity"*. P10 sets out the Framework's presumption in favour of sustainable development.

Section 11 of the NPPF details making effective use of land. The Framework states that planning policies and decisions should *"take opportunities to achieve net environmental gains – such as developments that would enable new habitat creation"* and should *"recognise that some undeveloped land can perform functions for wildlife"* (P118).

Section 15 details conserving and enhancing the natural environment; policies and decisions should be *"protecting and enhancing sites of biodiversity value"*, *"recognise the intrinsic character and beauty of the countryside"* and contribute to conserving and enhancing the natural environment and reducing pollution (P170). Allocations of land for development should, *"prefer land of lesser environmental value, where consistent with other policies in this Framework and take a strategic approach to maintaining and enhancing networks of habitats"* (P171).

The Framework sets out ways to minimise the impacts on biodiversity through *"identifying, mapping and safeguarding components of local wildlife rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity"* and the *"conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and (the need to) identify and pursue opportunities for securing measurable net gains for biodiversity"* (P174).

It is made clear in P175 that local planning authorities should apply principles when determining planning applications. Planning permission should be refused *"if significant harm to biodiversity resulting in development cannot be avoided, adequately mitigated, or, as a last resort, compensated for"*. Development should not normally be permitted where an adverse effect on a SSSI is likely and *"opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity"*.

Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services.

This strategy builds on the Natural Environment White Paper (June 2011) - Setting out the current UK Government's approach to nature conservation. It promotes a more coherent and inclusive approach to conservation and the valuing in economic and social terms of economic resources.

The strategy promotes initiatives such as Biodiversity Offsetting, Nature Improvement Areas and a focus on well-connected natural networks and introduces the concept of securing a 'no net loss' situation with regard to UKBAP / Section 41 habitats and species.

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System

Provides guidance to Local Authorities on their obligations to biodiversity – particularly in relation to assessing planning applications and ensuring the adequacy of information.

BSI (2013) British Standards Institute BS 42020:2013 Biodiversity — Code of Practice for Planning and Development.

Provides a standard for the biodiversity assessment and development industries and decision makers such as Local Planning Authorities to work to.