

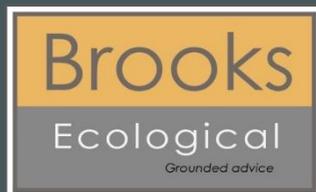
Land off Darton Lane, Mapplewell



Preliminary Ecological Appraisal Report

22/02/2022

Duchy Homes



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Report duration	In accordance with CIEEM (2019), unless otherwise stated the findings of this report remain valid for a period of 18 months. After this period advice should be sought on the scope of any updating work required.



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Summary

This report is produced to inform Duchy Homes of potential ecological constraints associated with their proposed development site and the need for further reporting or output to support a planning application.

This 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 carried out in January 2023.

Key Findings

The Site is dominated by unmanaged other neutral grassland. At the time of the mid-winter survey, the western fields supported a higher proportion of forbs and historically the western fields have been assessed as 'species-rich'. It is recommended that the grassland is subject to updating detailed vegetation survey in June 2023 to confirm its current value and inform any mitigation / long-term management.

Remaining habitats are limited to species-poor hedgerow, scattered hawthorn trees, waterbodies of low ecological value, and small areas of bramble / mixed scrub.

Further survey is recommended for bat activity, reptiles, badger, breeding birds and great crested newt.

Biodiversity Net Gain

The Site has been assessed as having a Biodiversity Metric score of 31.10 Habitat Units, 0.60 Hedgerow Units and 0.26 River Units.

Based on indicative plans, the western field is to be retained with the remaining fields developed with housing. Replacement of the central and eastern fields with sealed surfaces will inevitably result in a high percentage net loss in Habitat Units.

Introduction

1. Brooks Ecological Ltd was commissioned by Duchy Homes to carry out a Preliminary Ecological Appraisal (PEA) of Land off Darton Lane, Mapplewell, S75 5AH (SE318098).
2. The Site has previously been subject to ecological survey in 2016 and 2018 by EDP- report reference edp3487_r003.
3. 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.

Purpose of a PEA

4. 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.
5. The subsequent Preliminary Ecological Appraisal Report (PEAR) is intended to give 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.
6. Biodiversity Accounting metrics are used to quantify the value of a Site in Biodiversity Units - which helps in the later stage of assessing the ecological impacts of the proposed development.
7. Biodiversity Units can help to inform avoidance, or on-site mitigation levels required; or as a last resort can translate to a direct monetary value where compensation (off-site) is required. Please be aware that they *can* significantly impact on costs and viability.

The Site

8. The application site 'the Site' comprises a series of fields, formerly grazed but which seemingly has been left unmanaged since the previous survey.
9. 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).



Desk Study

Landscape

10. The Site is located on the southern edge of Mapplewell, bound by Darton Lane to the north, a dismantled railway line to the south which now supports young woodland, with housing to the west and east.
11. Past these immediate boundaries, the local landscape is characterised by relatively dense residential development to the north, north-west and north-east with 'green land' to the south comprising large homogenous fields, former collieries and water courses including the River Dearne.
12. The Site is underlain by the Pennine Middle Coal Measures Formation consisting of mudstone, siltstone and sandstone which gives rise to slowly permeable, seasonally wet, acid loamy and clayey soils. The Site does have some history of being used for coal mining.

Wildlife Corridors

13. The most relevant wildlife corridor and area of higher value habitat to the Site are the dismantled railway line and Mapplewell Tip Local Wildlife Site which border the Site to the south. The dismantled railway line supports scrub and young woodland and forms a good linear feature west to east, connecting to a working railway line to the west.
14. Mapplewell Tip LWS offers a variety of habitats including unimproved acid grassland, scrub and woodland.

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



Designated Sites

Statutory Designations

15. A search has been made to identify any nationally designated sites within a 2km radius of the Site, or 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
Denby Grange Colliery	6.9km	Special Area of Conservation (SAC)	High counts of great crested newt.

16. Direct and indirect impacts on the SAC as a result of this development are considered unlikely due to the Sites separation and distance.

SSSI Impact Risk Zones (IRZs)

17. The Site lies within the IRZ for the Seckar Wood SSSI but does not fall into any of the highlighted categories which require the LPA to consult with Natural England in relation to potential impacts.

Non-Statutory Designations

18. There are three non-statutory designated sites within a 2km radius, all of which are designated as Local Wildlife Sites (LWS). The most relevant is the Mapplewell Tip LWS located adjacent to the Site as shown in figure 4. This LWS supports a variety of habitats resulting from its former use, including a band of mixed scrub / young broadleaved woodland along its northern boundary which then bounds the Site. The development must ensure that impacts upon this LWS are avoided.
19. The other two LWS's are located > 800m from the Site with no hydrological connection. As such, direct and indirect impacts on Daking Brook 17 and Barnsley Canal at Wilthorpe 25 as a result of this development are unlikely due to the Sites separation and distance.

Nature Improvement Area

20. The Site does not fall within a Nature Improvement Area – the closest area being Dearne Valley Green Heart c.3.6km east.

Granted EPSM Licenses

21. No granted licenses are found within a 1km radius of the Site.

Figure 3 Barnsley Metropolitan Borough Council; Species and Designated Sites.

Boundaries of Statutory and Local Wildlife Sites (non-statutory) Within the Search Area

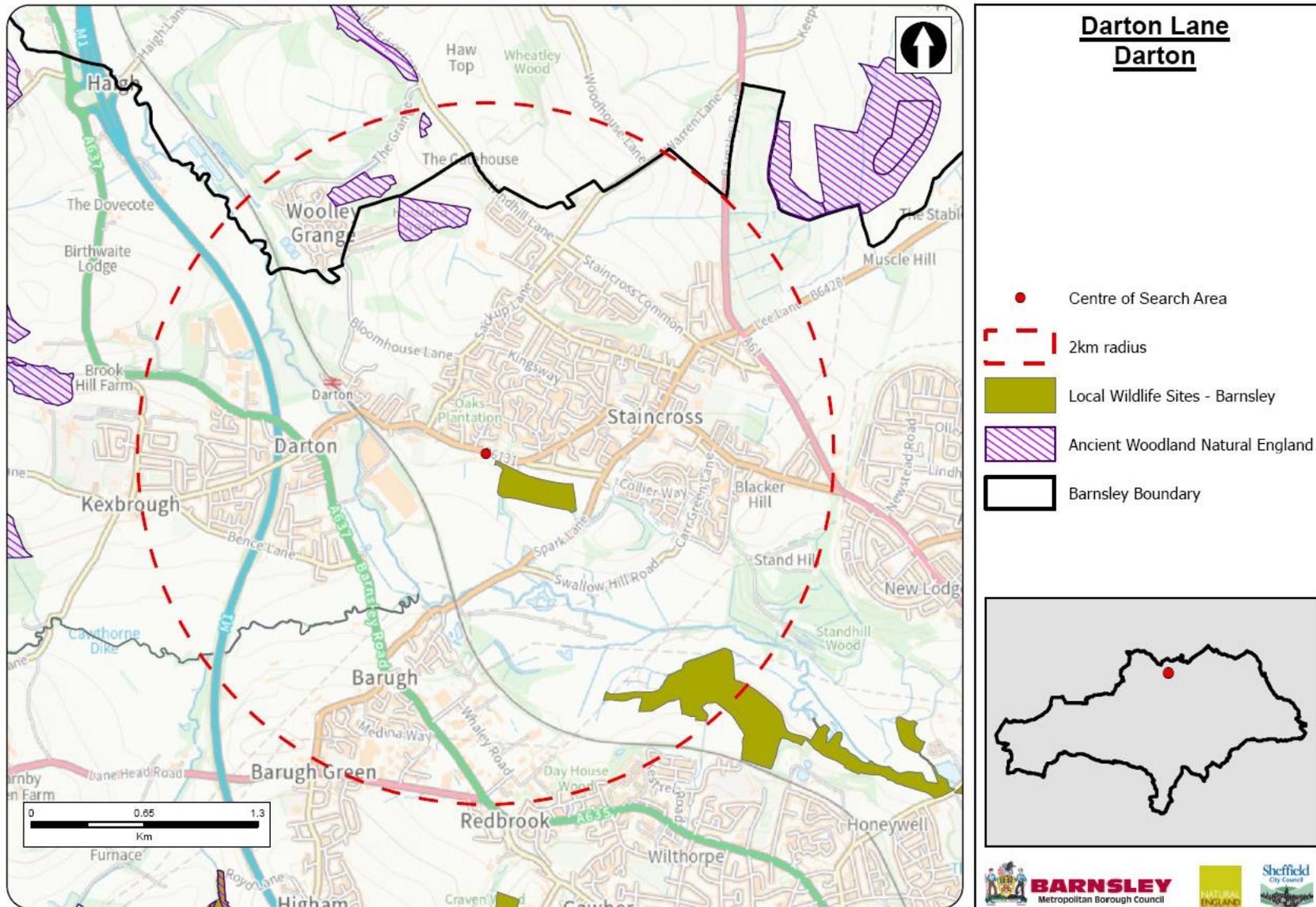
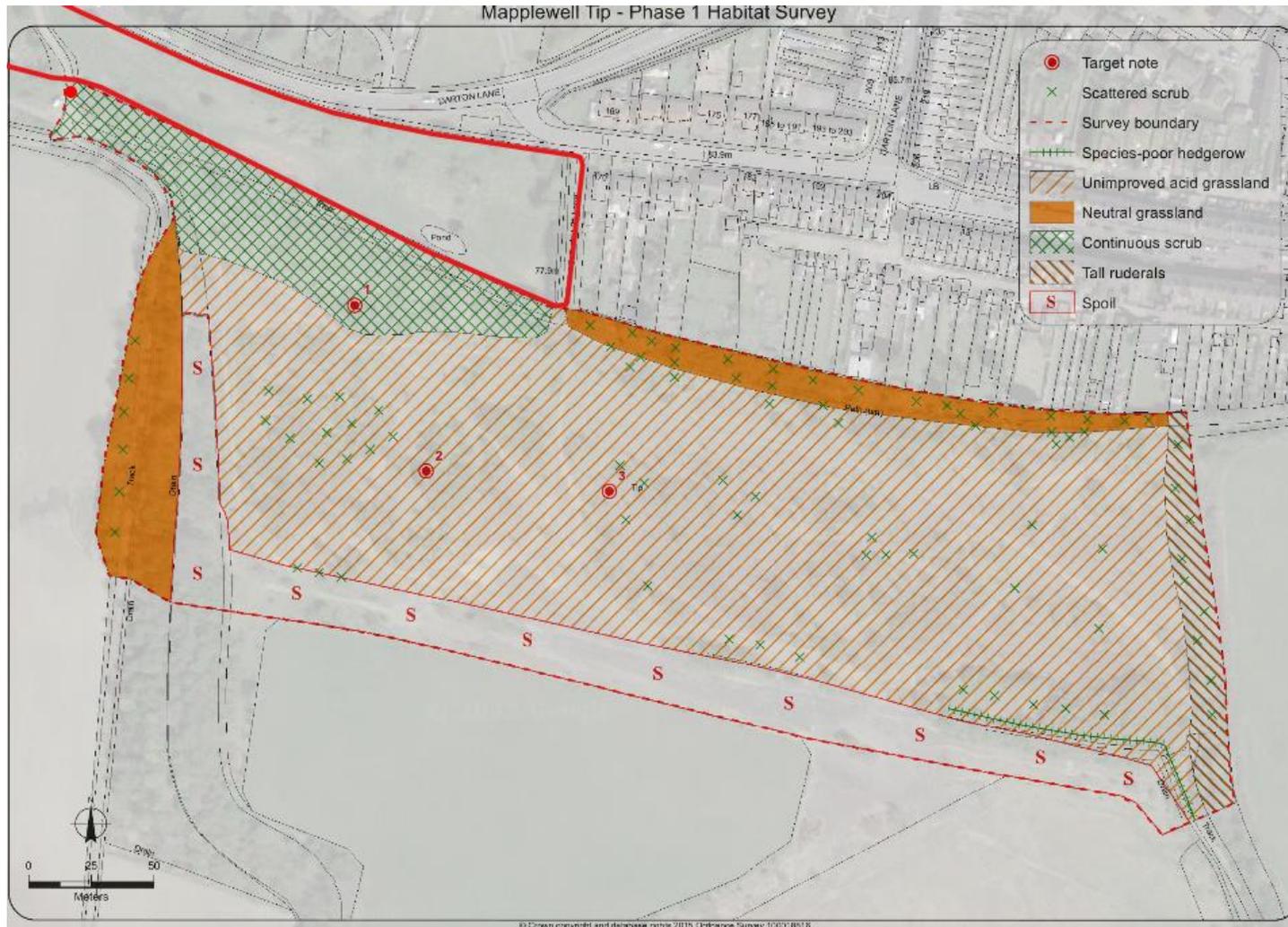


Figure 4 Mapplewell Tip 62 LWS in relation to the Site



Survey

22. The survey was carried out during January 2023¹ and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010).
23. Enough time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather.
24. Whilst the majority of the Site was accessible, at least 10% of the Site was inaccessible due to very dense vegetation, which could not be closely inspected. This could have concealed invasive species or protected species evidence.

Habitat Appraisal

25. The Site's habitats are described in order on the following pages. In line with the requirement to provide information on **Biodiversity Net Gain (BNG)**, habitats are named in accordance with the UK Habitats classification system - we have used the relevant UK Habs guidance in identifying habitats. Habitat descriptions are divided into the 'distinctiveness' categories used in the calculations - with more weight being afforded the more distinctive / important habitats.
26. Generally, the following apply to each tier of distinctiveness; although some authorities might highlight some lower distinctiveness habitats as having a higher importance locally. Where relevant we have highlighted these.

Very Low Distinctiveness Habitats

27. Habitats of little or no habitat value i.e., lacking any significant native vegetation, but could still provide supporting habitat for protected or notable fauna such as birds or bats. In the context of BNG - their areas are included in calculation, but mitigation or compensation is not required.

Low Distinctiveness Habitats

28. Habitats which are ubiquitous, often which have been created or modified by man. They tend to lack diversity of species and structure. They are unlikely to support notable flora but could still provide supporting habitat for protected or notable fauna. In the context of BNG they are included in calculations, but compensation / mitigation needs only to provide habitat of similar or higher distinctiveness.

Medium Distinctiveness Habitats

29. Habitats which are common but provide a higher level of structural and species diversity, though unlikely to support more notable assemblages, species of interest could be present here and they are more likely to be important supporting habitat to fauna. In the context of BNG mitigation needs to provide habitat of the same broad habitat type, or that of higher distinctiveness.

High Distinctiveness Habitats

30. Habitats which are more natural and contain more important assemblages of plants and potentially species which are rare in their own right. They will provide good habitat for fauna. These habitats are likely to be targeted as conservation priorities and will be the subject of additional policy guidance or legislation. In the context of BNG whilst mitigation or compensation for loss or damage is possible, provision of more of the same type of habitat would be required- which (with a few exceptions) is likely to be difficult.

Very High Distinctiveness Habitats

31. These are the UKs rarest / best habitats. They will be present in very particular locations and a range of rare or important plant and animal species will depend on the particular conditions they provide. These habitats will be the subject of restrictive policy guidance or legislation. Whilst the BNG metric does not preclude mitigation or compensation in respect of these habitats, creation of the same habitat type would be required and this would range between very difficult/expensive and impossible.
32. Each habitat is mapped and an area for each type is provided in the format of the DEFRA Biodiversity Metric 3.1 Calculation Tool. The areas can be used to quantify the impacts of development in an Ecological Impact Assessment if this is required by the Local Planning Authority.

Condition Assessment

33. Our condition assessment for each habitat described references where available the criteria set out in DEFRA (2021) Biodiversity Metric 3.1 Technical Supplement (1).
34. Habitats in the Low Distinctiveness tier tend to fall into the poor condition category by default. Where we feel this is not the case, we have explained our reasoning. Habitats within the other higher tiers can fall into a range of conditions. We set out our reasoning based on the given criteria and guidelines.

¹ This Report has been prepared during February 2023 following a visit to the site in January 2023 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.

Habitats of Low/Very Low Distinctiveness

Figure 5 Approximate location and extent of these habitats.



Table 2 Summary – Habitats of Low / Very Low Distinctiveness.

Habitat Code/ Name	Summary Description	Condition
h3h- Bramble scrub	Two dense areas of bramble dominated scrub. The larger section to the north-west also comprises buddleia and oak saplings, whilst the section along the northern boundary supports hawthorn and willowherbs but at low densities.	N/A
u1c- Artificial unvegetated, unsealed surface	An access track to the fields to the south passes through the Site. This is devoid of any significant vegetation.	N/A
h2NE5- Native Hedgerow	Two short lengths of gappy hedgerow comprising hawthorn, elder and rose. No distinctive understorey is recorded.	Good - see condition assessment below

Criteria	Central	Eastern	Condition
A1 Height >1.5m	Pass	Pass	No more than 2 failures, no more than 1 in any letter = Good
A2 Width > 1.5m	Pass	Pass	
B1 Base gaps <0.5m	Pass	Pass	
B2 Canopy gaps <10%	Fail	Pass	No more than 4 failures, does not fail both attributes for more than 1 letter = Moderate
C1 Undisturbed ground >1m at least one side	Pass	Pass	
C2 Undesirable species <20% cover	Fail	Fail	
D1 >90% invasive free	Pass	Pass	More than 4 failures, or fails both attributes in more than 1 letter = Poor
D2 >90% free of damage	Pass	Pass	
Score	Good	Good	

Figure 6 Bramble to north-west



Figure 7 Access track and hedgerow



Habitats of Medium Distinctiveness

Figure 8 Approximate location and extent of these habitats.



g3c Other Neutral Grassland

35. This habitat covers the majority of the Site and is split into four areas, with a gradual west to east and north to south slope. All areas have seemingly been unmanaged for the past few years although have been subject to recent ground works, resulting in heavy tracking, bare ground and some vegetation clearance in localised areas.
36. The Site has been subject to detailed vegetation surveys in 2018 by EDP which found the western field to support species-rich grassland.
37. This Brooks Ecological survey was carried out in mid-winter and species will inevitably have been overlooked. The fields have all been assessed to be 'other neutral grassland' based on this survey, however its classification and condition are subject to change following a recommended updating vegetation survey in June 2023.

Western field

38. The majority of the western field (up until it meets the 121 secondary habitat) was found to support a mixture of common bent, crested dog's tail, perennial rye-grass and red fescue, with smaller amounts of cocks foot and meadow foxtail. Common knapweed is extensive throughout, alongside frequent creeping cinquefoil, ribwort plantain, meadow buttercup, yarrow, white clover, bramble and scattered hawthorn saplings.
39. To the north-west of this field, the sward is shorter and displays a higher density of the aforementioned forbs with crested dogs tail the most frequently recorded grass species. Scrub (blackthorn and bramble) is beginning to encroach from the boundaries.
40. A small area of standing water is present to the central south of this field (secondary code 119). This has seemingly dried over the years and appears to now be ephemeral in nature. Soft rush and floating sweet-grass were the only aquatic species recorded.

121 Secondary Code

41. The western field grades into a marshy grassland to its east. Water seemingly issues from the north of this area, seeping south before meeting a short stretch of drainage ditch and continuing off-site (detailed overleaf). This area has been severely damaged by the aforementioned ground works and is polluted.
42. Reedmace and great willowherb dominate. In addition, smaller amounts of nettle, soft rush, fat hen, greater plantain, creeping buttercup, meadow buttercup and cuckoo flower were recorded.

43. This habitat has been assessed against the UK Habitats classification system and whilst it does appear to align with 50c, it is not considered to best represent a 'fen priority habitat'. Instead, it has been assessed as 25c and 'other neutral grassland' with the secondary code of 'waterlogged'.

Central field

44. The central field varies throughout occupied by varying densities of common bent, perennial rye-grass, red fescue, Yorkshire fog, crested dogs-tail and cocks-foot. Common knapweed is locally dominant with burdock, meadow buttercup, creeping buttercup, ribwort plantain, greater plantain, common ragwort, white clover, broad-leaved dock, creeping cinquefoil, nettle, common mouse-ear and bramble abundant.

45. An area of denser tall ruderals is present to the centre, consisting dominantly of broad-leaved dock, nettle and thistles.

Eastern field

46. This field is succeeding to scrub although at this stage still supports a grassland community. Most frequently recorded grasses are cocks-foot, common bent, perennial rye-grass and Yorkshire fog with red fescue and meadow foxtail also recorded. Forbs are varied and frequent, with common knapweed, burdock, yarrow and ribwort plantain most abundantly recorded, alongside bramble, broad-leaved dock, teasle, creeping cinquefoil, bush vetch, creeping buttercup, meadow buttercup, nettle, doves foot cranesbill, cleavers, dandelion and cow parsley.

47. Scattered mature hawthorns are present throughout (mapped as trees), with saplings of hawthorn and elder also present.

Defra Metric Condition Assessment - Poor / Moderate

Criteria	West	Central	East	121	Condition Poor
Close match	Pass	Pass	Pass	Fail	5 out of 6 = Good / 5 out of 5 for non-acid grassland = Good 3 -4 = Moderate, including 1 for non-acid grassland 1-2 = Poor *Criterion 6 is essential to meet Good condition (only applies to non acid grassland)
Varied sward	Pass	Pass	Pass	Fail	
Bare ground 1-5%	Pass	Pass	Pass	Fail	
Bracken < 20% and scrub <5%	Fail	Fail	Fail	Pass	
Absence of invasives	Pass	Pass	Pass	Pass	
>9 species per square meter	Fail	Fail	Fail	Fail	
Score	Mod	Mod	Mod	Poor	

Figure 9 Typical view of western grassland



Figure 10 View of western grassland-shorter sward to west



Figure 11 121 area



Figure 12 View of central grassland



Figure 13 Tall ruderal areas to central



Figure 14 Eastern field- looking east



h3h Mixed scrub

- 48. Three areas of mixed scrub are present within the Site. The western area is encroaching from outside the boundary into the grassland and supports a mixture of dense young blackthorn and bramble.
- 49. The central and eastern areas are more mature, offering dense elder, hawthorn, blackthorn, ash and bramble.

Defra Metric Condition Assessment - Poor / moderate

Criteria	Western boundary	Eastern & central	Condition
Representative and 3 plus woody spp.	Fail	Pass	5 = Good 3-4 = Moderate 0-2 = Poor
Good age range	Fail	Pass	
Absence of invasives	Pass	Pass	
Well-developed edge	Pass	Pass	
Clearings and glades present	Fail	Fail	
	Poor	Moderate	

Figure 15 View of eastern area



Figure 16 View of western area



361 Ponds (Non-priority habitat)

- 50. Two permanent standing waterbodies are present on Site. These are both similar in nature and located to the south-east. Both ponds have been significantly damaged over the years through grazing, are shallow, with litter and pollution evident.
- 51. The ponds support very limited emergent or submergent vegetation, confined to soft rush, reedmace and floating sweet-grass with the margins supporting broadleaved dock, creeping buttercup, greater willowherb and rosebay willowherb.
- 52. A third area of standing water is present within the western field, as detailed in the 'other neutral grassland' habitat and for the purposes of this assessment is not mapped as 'pond' habitat.

Defra Metric Condition Assessment - Moderate

Criteria	Pond 1	Pond 2	Condition
Good water quality?	Fail	Fail	9 = Good 6-7 or 8 of 9 = Moderate 0-5 = Poor
Adjacent habitats 10m	Pass	Pass	
Duckweed/algae <10%	Pass	Pass	
Not connected to water bodies	Pass	Pass	
No dams pumps or pipes	Pass	Pass	
Absence non-natives	Pass	Pass	
Not stocked with fish	Pass	Pass	
Additional Criteria			
50% wetland plant cover?	Fail	Fail	
No more than 50% shaded	Pass	Pass	
Score	Moderate	Moderate	

Figure 17 Pond 1



Figure 18 Pond 2



w1g- Other woodland; broadleaved (scattered trees)

53. Outside of the areas of mixed scrub are scattered semi-mature hawthorn trees, having either been planted as former hedgerows along the northern boundary or have self-set over the years.

Defra Metric Condition Assessment - Poor

Criteria	Good/Moderate/Poor	Condition
Age distr.	Poor	33-39 = Good 26-32 = Moderate 13-25 = Poor
Grazing	Moderate	
Invasives	Good	
Number natives	Poor	
Cover natives	Good	
Open space	Moderate	
Regen	Moderate	
Tree health	Good	
Ground flora	Poor	
Vertical structure	Poor	
Veteran trees	Poor	
Deadwood	Poor	
Disturbance	Moderate	
Score	Poor	

Figure 19 Scattered hawthorn along northern boundary



Figure 20 Scattered hawthorn to east



191- Ditch

54. The marshy area leaves the Site through a short section of drainage ditch, before being culverted under the adjacent railway embankment. The ditch had a moderate flow, was approximately 50cm wide and held 10cm deep water with no aquatic vegetation recorded.

Defra Metric Condition Assessment - Poor

Criteria	Pass/Fail	Condition
Good water quality	Fail	8 = Good 6-7 = Moderate 0-5 = Poor
> 10 emergent/aquatic per 20m	Fail	
< 10% filamentous algae/duckweed	Pass	
Marginal fringe >75%	Fail	
Damage <5%	Pass	
Water levels	Pass	
< 10% shaded	Fail	
Absence of invasives	Pass	
Score	Poor	

Figure 21 Drainage ditch-section along boundary



Figure 22 Drainage ditch- as it is culverted under railway embankment



DEFRA Metric (Baseline)²

55. This metric sets out the baseline for the Site - proposals should seek to **Avoid** areas of higher value, **Mitigating** any loss on-Site through retention and enhancement, or habitat creation.

Land off Darton Lane, Mapplewell								
A-1 Site Habitat Baseline								
Condense / Show Columns			Condense / Show Rows					
Main Menu			Instructions					
Habitats and areas				Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Grassland	Other neutral grassland	1.53	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	12.24
2	Grassland	Other neutral grassland	0.68	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	5.44
3	Grassland	Other neutral grassland	0.67	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	5.90
4	Heathland and shrub	Mixed scrub	0.06	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.24
5	Heathland and shrub	Mixed scrub	0.17	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	1.36
6	Heathland and shrub	Bramble scrub	0.09	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.36
7	Lakes	Ponds (Non- Priority Habitat)	0.06	Medium	Moderate	Location ecologically desirable but not in local strategy	Same broad habitat or a higher distinctiveness habitat required	0.53
8	Urban	Artificial unvegetated, unsealed surface	0.02	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
9	Grassland	Other neutral grassland	0.23	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	0.92
10	Woodland and forest	Other woodland; broadleaved	1.03	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required	4.12
11								
12								
13								
14								
15								
Total habitat area			4.54					31.10

² Our report provides an estimate of the sites value in Biodiversity Units. This is based on thorough assessment at the time of survey and using the information available at this time. In this assessment we have used the latest version of DEFRA's Biodiversity Metric Tool, the UK Habitats Classification and relevant guidance. This assessment requires subjective judgments to be made in terms of habitat type and condition and could be open to other interpretations. Reliance on the Unit Score, or conversion of this into a monetary value, would be at the developer's own risk. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

B-1 Site Hedge Baseline												
Condense / Show Columns			Condense / Show Rows			Main Menu			Instructions			
Baseline ref	Hedge number	UK Habitats - existing habitats		Habitat distinctiveness		Habitat condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline Total hedgerow units
		Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		
1	Central	Native Hedgerow	0.04	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.24
2	Eastern	Native Hedgerow	0.06	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.36
3												
4												
5												
6												
7												
			0.10									0.60

C-1 Site River Baseline											
Condense / Show Columns			Condense / Show Rows			Main Menu			Instructions		
Baseline ref	Existing river type		Habitat distinctiveness	Habitat condition	Strategic significance	Watercourse encroachment	Riparian encroachment	Suggested action	Ecological baseline Total river units		
	River type	Length (km)	Distinctiveness	Condition	Strategic significance	Extent of encroachment	Extent of encroachment				
1	Ditches	0.07	Medium	Poor	Within Local Plans	Minor	No Encroachment	Restore	0.26		
2											
3											
4											
5											
6											
		0.07								0.26	

Faunal Appraisal

56. The following pages discuss only the groups and species that could be reasonably expected to be found on the type of habitats present on, or adjacent to, the site.

Amphibians

Desk evidence

57. Two standing waterbodies are shown on mapping within a 500m radius of the Site- both are located within the Site.
58. Records of common toad, common frog, smooth newt and great crested newt (GCN) have been returned. All of the GCN records are located >900m south of the Site. The on-site ponds have been subject to eDNA analysis by EDP in 2016 and 2018 and in both instances returned a negative result for GCN.

Field Evidence

59. The Site supports two permanent standing waterbodies- ponds 1 and 2. These appear to have poor water quality and limited aquatic vegetation but could be of use to amphibians.
60. The Site also supports an area of pooled water within the western field, which has dried significantly since the previous EDP 2018 survey. It may now only support standing water during periods of high rainfall. EDP also detail a fourth on-Site pond in 2016 although this was lost by 2018 and was not present in 2023.

Summary Evaluation

61. Updating survey is recommended to confirm the presence or likely absence of great crested newt from the on-Site waterbodies.
62. The Site and surrounding area are likely to support small numbers of common amphibians, i.e. common toad and common frog, however, the presence of significant amphibian populations within the Site is considered unlikely.

Further Surveys and Recommendations

63. Updating eDNA survey of the two on-Site ponds and potentially the area of standing water dependant on water levels at the time to ascertain the current status of GCN on Site.

Figure 23 Ponds mapped in relation to the Site.



Bats

Desk evidence

64. Forty-one records of bats have been returned, detailing common pipistrelle, soprano pipistrelle, Daubenton's bat, noctule, Leisler's bat and indeterminate vesper bat species.
65. None of the records relate to the Site, with the closest detailing common pipistrelles foraging within Mapplewell Tip LWS in 2019. No significant roost records are detailed.

Field Evidence (Roosting)

66. No buildings are located within the Site boundary.
67. A large number of trees are present within the Site, although the majority are young hawthorns and none were found to support any potential roost features.
68. A large number also overhang the boundary, either from the dismantled railway line or from housing to the west. Again, no obvious potential roost features were recorded.

Field Evidence (foraging and commuting)

69. The Site has not been subject to previous bat activity survey.
70. The Site offers a variety of habitats and is bordered by scrub / woodland associated with the dismantled railway line and LWS- all of which offer good opportunities for foraging and commuting bats.

Summary Evaluation

71. The Site does not support any obvious potential roost features.
72. The Site provides potential foraging and commuting habitat for local populations and further activity surveys are recommended to confirm the expected use by the local bat populations.

Further Surveys and Recommendations

73. Seasonal activity surveys are recommended to ascertain the Site's usage by the local bat populations.

Birds

Desk Evidence

74. Over 1700 records of birds have been returned, detailing a range of urban, farmland and water birds. A large proportion relate to Wilthorpe Marsh and Woolley Grange.
75. Lapwing, skylark, yellowhammer, mistle thrush and grey partridge have been recorded in the adjacent Mapplewell Tip LWS, all species that are red listed and could utilise habitats on Site.

Field Evidence

76. A range of common bird species were noted during the survey including goldfinch, blackbird, great tit, blue tit, dunnock, collared dove, robin, wren, wood pigeon, house sparrow and kestrel.
77. The Site has not been subject to previous bird surveys.

Summary Evaluation

78. The Site supports a range of unmanaged habitats which offer potential for a variety of common garden / farmland species, and potentially more important species such as yellow hammer or mistle thrush.

Further Surveys and Recommendations

79. Breeding bird surveys are recommended to demonstrate the Site's usage and can be used to inform mitigation and enhancement.
80. Standard precautions apply in respect of restrictions on clearing vegetation during the nesting season.

Riparian Mammals

Desk evidence

81. Records of water vole have been returned.

Field Evidence

82. The small section of drainage ditch is culverted under the railway and is considered highly inaccessible to riparian mammals.

83. No other watercourses are located within the surrounding area.

Summary Evaluation

84. The likely absence of riparian mammals from the Site can be reasonably concluded.

Further Surveys and Recommendations

85. Further survey is not recommended.

Badgers

86. A separate badger report will be provided so as not to place badger data in the public domain.

Hedgehogs

Desk evidence

87. Hedgehogs are recorded within the search area.

Field Evidence

88. No evidence of hedgehogs was found on site.

Summary Evaluation

89. The Site provides suitable habitat for this species and measures to allow them to access gardens need to be planned for.

Further Surveys and Recommendations

90. Presence assumed no further surveys are considered necessary.

Reptiles

Desk evidence

91. Three records of common lizard have been returned, all relating to Woolley Colliery >1.5km north.
92. The EDP survey recorded 1 grass snake on-Site during the 2018 survey.

Field Evidence

93. No evidence of reptiles was found, however the Site does provide a range of habitats suitable for reptiles including standing water, rough grassland and scrub.

Summary Evaluation

94. Grass snake has been recorded on Site in 2018 and due to the lack of management of the Site since then, the Site's value to reptiles has increased.

Further Surveys and Recommendations

95. Detailed reptile surveys are recommended.

Invertebrates

Desk evidence

96. Records detail cinnabar, dingy skipper, latticed heath, shaded broad-bar, small heath and wall heath- the majority recorded at Woolley Colliery.

Field Evidence

97. The Site supports habitats suitable for a variety of invertebrates, although doesn't support habitats used by the dingy skipper.

Summary Evaluation

98. The Site's supports habitats suitable for a variety of invertebrates, although given the Site's relatively small size and the availability of similar habitats in the wider area, it is unlikely to be of any real importance to the local invertebrate populations.

Further Surveys and Recommendations

99. Further survey is not considered necessary.

Invasive Non-Native Species (INNS)

100. 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.
101. No species were found³.

Survey constraints

102. Although no INNS have been identified in this preliminary survey it is not always possible to conclude absence from preliminary survey alone due to factors such as season, accessibility, 3rd party attempts to hide evidence or undisclosed treatment programmes. For this reason, this report should not be relied upon as definitive evidence of absence of INNS.
103. This site presents a medium risk of supporting undetected INNS based on the following factors:
- Areas of site inaccessible to survey
 - Suboptimal survey season
 - Potential for recent earthworks or management which may have obscured viable material
 - Proximity to nearby potential sources of infection
 - Potential for tipping of material
104. Should further assurances be needed in relations to INNS, a dedicated Invasive Weed Survey should be commissioned.

³ Whilst our ecologists are trained in the identification of invasive species this report is not a dedicated invasive species survey. Detectability of invasive plant species can be affected by several factors, and conclusive determination status, or extent, is not

possible through preliminary survey alone. 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.

Ecological Constraints

Habitat Value

105. The Site is dominated by unmanaged other neutral grassland. Detailed vegetation survey by EDP in 2018 has found the fields to the west to be species-rich, although due to lack of management over the subsequent years its value appears to have been reduced somewhat- as recorded in January 2023. It is recommended that the Site is subject to updating vegetation survey during the peak grassland season- May - June 2023 to confirm its current value.

106. Other habitats across the Site consist of species poor hedgerow, scattered hawthorn trees, waterbodies of low ecological value, and small areas of bramble / mixed scrub. Loss of these habitats outside of Biodiversity Net Gain would not require specific mitigation as they are common locally.

107. Most LPA's now require developments to demonstrate a 'no net loss' in biodiversity, or in some cases a 10% net gain. The Site has been assessed as having a Biodiversity Metric score of 31.10 Habitat Units, 0.60 Hedgerow Units and 0.26 River Units.

Off-site habitats

108. The Site is bordered by Mapplewell Tip LWS and woodland associated with the dismantled railway. Impacts upon these features will need to be avoided; measures would be best outlined in a CEMP (Biodiversity). A green buffer would be best incorporated along the length of the southern boundary and planted with native shrubs and trees.

Faunal constraints

109. Further / updating survey is recommended for breeding birds, reptiles, bat activity, GCN and badger to confirm their status on Site.

Figure 24 Ecological Constraints.



Ecological Opportunities

110. Proposals show the Site to be developed with housing. The western field is to be retained in part and the key ecological opportunities here relate to this retention. The results of the detailed vegetation survey will be able to provide further information, however given the number of species already present and the history of the grassland, the most beneficial way to enhance the grassland would be through ensuring its appropriate management.
111. The recommended green buffer to protect the LWS and dismantled railway could consist of a mixture of native shrub and tree species.
112. Within the development footprint, new mixed native hedgerows and tree lines could be incorporated throughout. In any areas of public open space, either native wildflower seed mixes or native and / or pollinator friendly shrub planting could be utilised.
113. Installing roosting or nesting features on new buildings will also be beneficial.
114. A suitable Biodiversity Management Plan would be useful in defining these enhancements and can be secured by standard condition.

Figure 25 Ecological Opportunities.



Conclusions and Recommendations

Planning considerations		
Recommendation	Rationale	When
R1 Additional Surveys	Breeding bird	4 visits- March to June
	Bat activity	Season survey- April / May, June-August & September - October
	GCN eDNA	Mid-April – end June
	Reptile	April - September
	Badger	Year round
	Detailed vegetation survey	May - July
R2 Produce a layout which minimises loss of biodiversity.	Engage with the Constraints and Opportunities set out above, involve your ecologist in designs at an early stage. The proposals will need to consider the NPPF hierarchy of Avoid - Mitigate - Compensate in minimising any loss of biodiversity. The LPA is likely to be seeking at least a no-net-loss situation and could request that a contribution is made to address any residual loss here, off-Site. Your layout may need to change to accommodate your findings from R1 surveys.	During the design process
R3 Biodiversity Net Gain Strategy (BNS)	Engage an ecologist to work with the design team to maximise available Biodiversity Units on site.	During the design process
R4 Landscape Design	Make sure your landscape architect follows ecological advice or the BNS to maximise Biodiversity Units on site and make sure there are no design conflicts.	During the design process
R5 Ecological Impact Assessment (EclA) to include Calculated final Biodiversity Impact Score.	Summarises all survey findings and assesses the impacts of the scheme in respect of these. Uses DEFRA metric to quantify net gain/loss of biodiversity.	Prior to submission. After a fixed design is agreed and all key additional survey are completed.
R6 Produce a CEMP (Biodiversity)	To show how the site will be built without affecting surrounding habitats and minimising risk of affecting protected or notable fauna. The CEMP will detail the following protection measures: Location of Biodiversity Protection zones or fences Dealing with known or discovered invasive species Pre- or during- clearance ecology checks for protected species. Protected/notable species method statements where licensing is not needed. Nesting bird management	Delivery report Suitable for planning condition.
R7 Produce a Biodiversity Management Plan	To specify in detail how the development will cater for biodiversity on site and to show how habitats incorporated through the Biodiversity Net Gain Strategy be maintained in the condition that the Biodiversity Calculations were based on.	Delivery report Suitable for planning condition.

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Appendix 1 Habitats and Ecological Features



Appendix 2 List of species recorded

Ash	<i>Fraxinus excelsior</i>	Foxglove	<i>Digitalis purpurea</i>
Bindweed	<i>Calystegia sepium</i>	Goat willow	<i>Salix caprea</i>
Blackthorn	<i>Prunus spinosa</i>	Greater willowherb	<i>Epilobium hirsutum</i>
Bramble	<i>Rubus fruticosus</i>	Ground elder	<i>Aegopodium podagraria</i>
Broad leaved dock	<i>Rumex obtusifolius</i>	Ground ivy	<i>Glechoma hederacea</i>
Broadleaved willowherb	<i>Epilobium montanum</i>	Hawthorn	<i>Crataegus monogyna</i>
Bush vetch/tare	<i>Vicia sepium</i>	Herb robert	<i>Geranium robertianum</i>
Chickweed	<i>Stellaria media</i>	Hogweed	<i>Heracleum sphondylium</i>
Cleavers	<i>Galium aparine</i>	Holly	<i>Ilex aquifolium</i>
Cock's-foot	<i>Dactylis glomerata</i>	Knapweed	<i>Centaurea nigra</i>
Common bent	<i>Agrostis capillaris</i>	Lesser burdock	<i>Arctium minus</i>
Common ivy	<i>Hedera helix</i>	Meadow buttercup	<i>Ranunculus acris</i>
Common Ragwort	<i>Jacobaea vulgaris</i>	Meadow foxtail	<i>Alopecurus pratensis</i>
Common sorrel	<i>Rumex acetosa</i>	Meadow grass	<i>Poa sp.</i>
Common spotted orchid	<i>Dactylorhiza fuchsii</i>	mouse-ear hawkweed	<i>Pilosella officinarum</i>
Cow parsley	<i>Anthriscus sylvestris</i>	Nettle	<i>Urtica dioica</i>
Creeping bent	<i>Agrostis stolonifera</i>	Oak	<i>Quercus sp.</i>
Creeping buttercup	<i>Ranunculus repens</i>	Perennial rye grass	<i>Lolium perenne</i>
Creeping cinquefoil	<i>Potentilla reptans</i>	Poplar	<i>Populus sp.</i>
Crested dogstail	<i>Cynosurus cristatus</i>	Rat's tail/ greater plantain	<i>Plantago major</i>
Cuckoo flower	<i>Cardamine pratensis</i>	Red campion	<i>Silene dioica</i>
Cut leaved cranesbill	<i>Geranium dissectum</i>	Red deadnettle	<i>Lamium purpureum</i>
Daisy	<i>Bellis perennis</i>	Red fescue	<i>Festuca rubra agg.</i>
Dandelion	<i>Taraxacum officinale agg.</i>	Reedmace	<i>Typha latifolia</i>
Dog rose	<i>Rosa canina</i>	Ribwort plantain	<i>Plantago lanceolata</i>
Dove's-foot cranesbill	<i>Geranium molle</i>	Rosebay willowherb	<i>Chamerion angustifolium</i>
Elder	<i>Sambucus nigra</i>	Selfheal	<i>Prunella vulgaris</i>
Fat hen/ goosefoot	<i>Chenopodium album</i>	Sheep fescue	<i>Festuca ovina</i>
Field speedwell	<i>Veronica persica</i>	Sheep's sorrel	<i>Rumex acetosella</i>
Floating sweet-grass	<i>Glyceria fluitans</i>	Silver birch	<i>Betula pendula</i>
		Soft rush	<i>Juncus effusus</i>
		Teasel	<i>Dipsacus fullonum</i>
		Tufted hair grass	<i>Deschampsia cespitosa</i>
		Viper's-bugloss	<i>Echium vulgare</i>

White clover

Trifolium repens

Wood avens

Geum urbanum

Yarrow

Achillea millefolium

Yellow oat grass

Trisetum flavescens

Yew

Taxus baccata

Yorkshire fog

Holcus lanatus

Appendix 3 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 by Barnsley Metropolitan Borough Council 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.

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

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

Bats

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
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	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.
Moderate	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).
High	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

Appendix 4 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.

Seasonal bat activity surveys have been recommended. This assessment was made by Victoria Baker BSc (Hons) MSc AIEEM. Victoria is registered to use the Class Survey Licence WML CL18 (Level 2).

Appendix 5 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 2021. 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 "protect and enhance our natural, built and historic environment", including "improving 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 many functions, such as for wildlife" (P120).

Section 15 details conserving and enhancing the natural environment; policies and decisions should be "protecting and enhancing valued landscape [and] 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 (P174). Allocations of land for development should, "allocate land with the least environmental or amenity value, where consistent with other policies in this Framework" and "take a strategic approach to maintaining and enhancing networks of habitats" (P175).

The Framework sets out ways to minimise the impacts on biodiversity through plans which "identify, map and safeguard components of local wildlife rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity" and promote the "conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity" (P179).

It is made clear in P180 that local planning authorities should apply a set of principles when determining planning applications. Planning permission should be refused "if significant harm to biodiversity resulting from 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 improve biodiversity in and around developments should be integrated as part of their design, 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.