

0005 North Wingfield

Interim Ecology Survey Results

23.04.2026

1. Introduction

- 1.1. Bennu Environmental Ltd is instructed by LANDRA Developments to undertake ecological surveys and assessments for the Land at North Wingfield (hereafter referred to as the 'Site').
- 1.2. The Site predominantly comprises of two arable fields, bordered by hedgerows. Woodland habitat borders the Site to the north (with a Local Wildlife Site (LWS) (see Appendix 1) beyond). Residential housing borders the Site to the west, with Williamthorpe Road running parallel to the southern boundary. Open fields, hedgerows, and trees are located beyond the northeastern boundary.
- 1.3. A field survey of the Site was undertaken on 7th July 2025 by an experienced ecologist to assess both the habitats present and the potential for use by notable or protected faunal species. Field signs, habitat features and environmental conditions were assessed alongside species-specific surveys in relation to:
 - i. [REDACTED]
 - ii. Bats;
 - iii. Hazel Dormouse *Muscardinus avellanarius*;
 - iv. Great Crested Newts (GCN); and
 - v. Reptiles.
- 1.4. The results of the species-specific surveys are presented below for each species / species group.

2. Habitat Baseline

- 2.1. The Site was subject to Phase 1 habitat survey work in July 2025. This involved identifying and recording the habitat types present, mapping their extent, and compiling representative species lists for each.
- 2.2. The following main habitat / vegetation types were identified:
 - i. Arable Fields;
 - ii. Hedgerows / treelines; and
 - iii. Ruderal Vegetation.
- 2.3. Each habitat present is described below with an account of their representative plant species. Habitats are shown at Appendix 2.

Arable fields

- 2.4. Broadly, the Site comprises of two fields of grassland under agricultural management.
- 2.5. Additional species recorded within the field margins, though at lower frequencies, included Common Buckwheat *Fagopyrum esculentum*, Timothy *Phleum pratense*, Bearded Couch Grass *Elymus caninus*, and Marsh Cudweed *Gnaphalium uliginosum*.

Ruderal Vegetation

- 2.6. A small area of Ruderal Vegetation is present in the southwest of the Site, surrounding an area of hardstanding and vehicle access point with scattered scrub. Species included Butterfly Bush *Buddleja davidii*, Grey Willow *Salix cinerea*, Perforate St John's-wort *Hypericum perforatum*, Blue Fleabane *Erigeron acer*, Common Cat's-ear *Hypochaeris radicata*, Goat Willow *Salix caprea*, Cocksfoot *Dactylis glomerata*, Red Fescue *Festuca rubra*, Dandelion *Taraxacum officinale*, Common Mugwort *Artemisia vulgaris*, Silver Birch *Betula pendula*, Ragwort *Jacobaea vulgaris*, Coltsfoot *Tussilago farfara*, Red Valerian *Centranthus ruber*, Black Medick *Medicago lupulina*, Purple Loosestrife *Lythrum salicaria*, Rosebay Willowherb *Chamerion angustifolium*, Creeping Bent *Agrostis stolonifera*, and False Oat Grass *Arrhenatherum elatius*.
- 2.7. Ruderal vegetation is also present on a steep bank along the northeastern edge of the Site, adjacent to a path running parallel to the Site boundary. Species included Nettle *Urtica dioica*, False Oat Grass *Arrhenatherum elatius*, Hogweed *Heracleum sphondylium*, Bramble *Rubus fruticosus* agg., Rosebay Willowherb *Chamerion*

angustifolium, Black Knapweed *Centaurea nigra*, Tansy *Tanacetum vulgare*, Teasel *Dipsacus fullonum*, and Broad-leaved Dock *Rumex obtusifolius*.

- 2.8. A further area of Ruderal vegetation along the eastern boundary within the south of the Site. Species included Nettle *Urtica dioica*, False Oat Grass, and Fat Hen *Chenopodium album*.

Modified Grassland

- 2.9. A small section of Modified Grassland is present in the south of the Site, extending into the Site from an adjacent public park. Species included Plantain *Plantago major*, Perennial Rye Grass *Lolium perenne*, Broad-leaved Dock, Dandelion *Taraxacum officinale*, Creeping Thistle *Cirsium arvense*, and Creeping Buttercup *Ranunculus repens*.

Hedgerows / treelines

- 2.10. Several Hedgerows and Treelines are present within and bordering the Site. Each of the Hedgerows are described further below.
- 2.11. **Hedgerow 1 (H1)** is a Native Hedgerow running along the Site's western boundary. H1 measures approximately 2m high and 1.5m wide, with taller shrubs approximately 5m tall. Species included Sycamore *Acer pseudoplatanus*, Bramble, and Goat Willow. Ground flora included Great Willowherb *Epilobium hirsutum*, False Oat Grass, Nettle, and Broad-leaved Dock.
- 2.12. **Hedgerow 2 (H2)** is a Native Hedgerow with Trees continuing along the western boundary following H1, after a gap of approximately 20m. The trees measure approximately 8 to 10m high. Species included Hawthorn *Crataegus monogyna*, Hazel *Corylus avellana*, Ash *Fraxinus excelsior*, Cherry *Prunus sp.*, Honeysuckle *Lonicera periclymenum*, Crack Willow *Salix fragilis*, English Oak *Quercus robur*, Elder *Sambucus nigra*, Holly *Ilex aquifolium*, Rowan *Sorbus aucuparia*, White Beam *Sorbus aria*, Field Maple *Acer campestre*, and non-native species Bridewort *Spiraea salicifolia* and Snow Berry *Symphoricarpos albus*. Ground flora included Cow Parsley *Anthriscus sylvestris*, Cleaver *Galium aparine*, Creeping Thistle *Cirsium arvense* Hogweed *Heracleum sphondylium*,
- 2.13. **Hedgerow 3 (H3)** is a Native Hedgerow with a Ditch, located between the two arable fields. It measures approximately 2m high by 2m wide. The first section consists of larger shrubs, while the section beyond the path has been managed, appearing more structured. Species include Crack Willow, Field Maple, Rose *Rosa sp.*, Bramble,

Hedge Bindweed *Calystegia sepium*, Hawthorn, and Blackthorn *Prunus spinosa*. Ground flora included Timothy *Phleum pratense*, Pineapple Mayweed *Matricaria discoidea*, Bearded Couch Grass *Elymus caninus*, Creeping Thistle and Nettle.

- 2.14. **Hedgerow 4 (H4)** is a Native Hedgerow running along the length of the western boundary of the northern field. It measures approximately 2.5m high and 2m wide. Some sections have been cut back, particularly where residential gardens back onto the field. Towards the top of the field, H4 ends where it transitions into bramble. Species include Blackthorn, Field Maple, Hawthorn, Horse Chestnut *Aesculus hippocastanum*, Elder and Hazel. Ground flora included Nettle, Cleaver, Pineapple Mayweed, American Willowherb *Epilobium ciliatum*, Nipplewort *Lapsana communis*, Spear Thistle *Cirsium vulgare*, Common Buckwheat, Shepherd's Purse *Capsella bursa-pastoris*, Horsetail *Equisetum arvense*, Phacelia *Phacelia tanacetifolia*, and Common Couch Grass.
- 2.15. **Hedgerow 5 (H5)** is a Native Hedgerow running along the northern boundary, measuring approximately 2m high and 1m wide. Species include Common Lime *Tilia × europaea*, Hawthorn, Blackthorn, Field Maple, and Rose *Rosa* sp.
- 2.16. **Hedgerow 6 (H6)** is a Native Hedgerow with Trees, measuring approximately 3m high and 2m wide. Species include Field Maple, Hawthorn, Blackthorn, Rose, and ground floral included Common Couch Grass.
- 2.17. **Hedgerow 7 (H7)** is a Native Hedgerow running along the northern boundary, adjacent to the off-site woodland. Species include the same species as H6, with additional species Norway Maple *Acer platanoides* and Marsh Cudweed.
- 2.18. **Hedgerow 8 (H8)** is a Native Hedgerow with Trees running along the eastern boundary. H8 forms a double hedgerow adjacent to the LWS Wolfie Ponds, with a path running between the two hedgerows. The trees measure approximately 4m to 5m, while the Hedgerow measures approximately 2m high and 3m wide. Species include Grey Willow *Salix cinerea*, Elder, Bramble, Hazel, Hawthorn, False Oat Grass, and ground floral included Pineapple Mayweed and Fool's Parsley *Aethusa cynapium*.
- 2.19. **Hedgerow 9 (H9)** is a Native Hedgerow with Trees, it measures approximately 2m high and 1.5m wide. Approximately halfway along it's length, it transitions into mature trees reaching 10m. Species include Field Maple, Bramble, Blackthorn, Rose, Maple, and Hazel. Ground floral included Field Horsetail, Soft Brome *Bromus hordeaceus*,

Great Willowherb, Cow Parsley, Swinecress *Lepidium coronopus*, Nettle, Knotgrass
Polygonum aviculare.

- 2.20. **Hedgerow 10 (H10)** is a Native Hedgerow on the eastern boundary, within the southern field. It measures approximately 4m high and 2m wide. Species included Hawthorn, Hazel, Elder, Blackthorn, Dog Rose *Rosa canina*, Elm *Ulmus* sp., Holly, and Grey Willow. Ground floral included Bracken *Pteridium aquilinum*, Cow Parsley and False Oat Grass.
- 2.21. **Hedgerow 11 (H11)** is a Native Hedgerow with Trees on the southern boundary, bordering the area of hardstanding. It measures approximately 2m high and 1m wide. Species include Cherry Laurel *Prunus laurocerasus*, Hawthorn, Cherry *Prunus* sp., Sycamore, Elder, Downy Birch *Betula pubescens*, Holly, Willow *Salix* sp. and ground floral included Poppy *Papaver rhoeas* and Great Willowherb.

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4. Bats

- 4.1. A Preliminary Roost Assessment (PRA) and one bat survey was undertaken from June to September, comprising static and activity surveys to ascertain the level of bat activity within the Site.

Building and tree assessment

- 4.2. The Site supports several mature hedgerows, scattered trees within the hedgerows along the boundaries. These features offer good potential for use by foraging and commuting bats. However, it is noted that connectivity is poor through the majority of

the Site, with limited internal hedgerows present. No confirmed roost features were recorded within the Site itself.

Activity surveys

Activity Survey 19th June

- 4.3. The activity survey undertaken on 19th June recorded a total of 159 registrations, with 77.36% of registrations attributed to Common Pipistrelle *Pipistrellus pipistrellus* (123 total registrations). Other species recorded were Noctule *Nyctalus noctula* (9 total registrations), Leisler's Bat *Nyctalus leisleri* (8 total registrations), *Myotis* spp. (6 total registrations), Whiskered Bat *Myotis mystacinus* (4 total registrations), Nathusius' Pipistrelle *Pipistrellus nathusii* (4 total registrations), Soprano Pipistrelle *Pipistrellus pygmaeus* (3 total registrations) and Serotine *Eptesicus serotinus* (2 total registrations).

Activity Survey 22nd July

- 4.4. The activity survey undertaken on 22nd July recorded a total of 352 registrations, of which 97.73% of registrations were Common Pipistrelle. Other species recorded were Soprano Pipistrelle (3 total registrations), Noctule (2 total registrations) and single registrations of Long-eared Bat spp., Serotine and Nathusius' Pipistrelle.

Activity Survey 27th August

- 4.5. The activity survey undertaken on 27th August recorded a total of 136 registrations, of which 62.50% were Common Pipistrelle (85 total registrations) and 27.21% were *Myotis* spp. (37 total registrations). Other species recorded were Soprano Pipistrelle (6 total registrations), Noctule (3 total registrations), Whiskered Bat (2 total registrations) and single registrations of Long-eared Bat spp., Serotine and Nathusius' Pipistrelle.

Activity Survey 18th September

- 4.6. The activity survey undertaken on 18th September recorded a total of 231 registrations, with 98.70% of registrations attributed to Common Pipistrelle (228 total registrations). Other species recorded were Leisler's bat (2 total registrations) and Noctule (1 total registrations).

Static Detector Surveys

- 4.7. Two statics were deployed within the Site. D1 was positioned along a hedgerow in the southwest of the Site, and D2 was positioned on the northern boundary along the woodland edge.

Automated Detector Survey 19th – 23rd June

- 4.8. The detector placed at D2 recorded the highest number of bat registrations (402 total registrations). Most of the registrations were attributed to Common Pipistrelle (79.35%), and to a lesser extent Serotine (8.71%). Notable species such as Long-eared bat spp. (3 total registrations) were also recorded. However, these accounted for only 0.75% of total activity and were recorded on singular nights rather than consistently across the survey period.
- 4.9. The detector placed at D1 recorded the lowest number of bat registrations (291 registrations), with again most of these registrations consisting of Common Pipistrelle (75.26%), and Noctule (13.40%). Notable species such as Long-eared bat spp. were also recorded, albeit infrequently (2 total registrations).

Automated Detector Survey July 22nd – 26th July

- 4.10. The automated detector survey, undertaken over this period showed notable differences in the number of registrations between the two static detectors.
- 4.11. The detector placed at D2 recorded the highest amount of bat registrations (1,150). Although, the majority of recordings were attributed to Common Pipistrelle (86% of the registrations) and to a lesser extent Noctule (8.17%). Other notable species were recorded in low numbers, included Long-eared Bat spp. (30 registrations), representing 2.61% of registrations.
- 4.12. In comparison the detector placed at D1 recorded a total of 282 bat registrations, with again Common Pipistrelle making up 89.72% of the registrations and Noctule 4.96%. Notable species such as Long-eared bat spp. were also recorded, albeit again infrequently (5 total registrations).

Automated Detector Survey 28th August – 1st September

- 4.13. The automated detector survey, undertaken over this period showed mostly consistent activity within the Site. The highest number of registrations across both locations were from Common Pipistrelle and to a lesser extent Daubenton's Bat.

- 4.14. The detector placed at D2 recorded the highest number of total registrations (158), with 84.81% of registrations attributed to Common Pipistrelle. A small number of notable species such as Long-eared Bat spp. (5 registrations) were also recorded, representing 3.16% of registrations.
- 4.15. In comparison D1 recorded a total of 48 registrations, with 39.58% of registrations attributed to Common Pipistrelle, and 20.83% attributed to Daubenton's bat. Long-eared Bat spp. (2 total registrations) was also recorded.

Automated Detector Survey 18th September – 22nd September

- 4.16. The automated detector survey undertaken between 18th September – 22nd September showed mostly consistent results between the two statics.
- 4.17. The detector placed at D2 recorded highest number of total registrations (305); however most registrations were attributed to Common pipistrelle (86.89%). 2 registrations of Long-eared Bat spp. were recorded.
- 4.18. In comparison D1 recorded a total of 243 bat registrations, with 43.21% of registrations attributed to Common Pipistrelle, and 27.16% to Myotis spp. D1 also recorded single registrations of Barbastelle and Alcaethoe Bat, which had not been recorded before across the survey period. However, given that each was represented a single registration, these records are likely attributed to the limitations of detector-based identification and therefore discounted.

5. Hazel Dormouse

- 5.1. Surveys for Hazel Dormice were undertaken across all suitable hedgerows and woodland within the Site.
- 5.2. The survey technique involved the erection of nest tubes within hedgerows and woodland in the Site. 50 Nest tubes were placed in accordance with the guidance provided by the Mammal Society and Natural England on the 22nd May 2025. Typically, tubes are placed within hedgerows approximately every 20 metres where suitable locations can be identified. The nest tubes were attached with wire ties underneath suitably sturdy horizontal branches and positioned on average at approximately 1.5 metres above ground level.
- 5.3. Monthly monitoring surveys were conducted on 30th May, 24th June, 23rd July, 28th August, 24th September, 21st October and 20th November.
- 5.4. No evidence of Dormice was found in any of the surveys.

6. Great Crested Newts (GCN)

- 6.1. The Site consists primarily of improved grassland, with a short ditch running across the southern part of the Site between the two arable fields.
- 6.2. A search using MagicMap of the surrounding area identified 2 ponds within an 250m radius of the Site, and a further three ponds within 500m radius of the Site. (See Appendix 3)
- 6.3. Landowners were contacted to request access to the ponds to facilitate further assessment. However, direct field surveys were limited due to access restrictions, therefore, only Pond 1 was subject to the field survey, with the other ponds evaluation relying on desk-based methods and scoping assessment to assess the presence or absence of Great Crested Newt (GCN).
- 6.4. **Pond 1 (P1)** is located north of the Site within the adjacent Local Wildlife Site. P1 was subject to an environmental DNA (eDNA) analysis for GCN, which returned a negative result.
- 6.5. **Pond 2 (P2)** is located adjacent to the Site's southwestern boundary. The pond measures 244m² and is bordered by a section of woodland to the north, with surrounding vegetation providing heavy shading. To the south and west, the pond is adjacent to residential houses, which may limit connectivity and reduce opportunities for amphibian dispersal.
- 6.6. **Pond 3 (P3)** is located 280m west of the Site within allotment gardens and measures approximately 33m². Review of available aerial imagery indicates an absence of marginal vegetation around the pond edge. Similarly to P2, adjacent residential houses between the pond and the Site may limit GCN dispersal.
- 6.7. **Pond 4 (P4)** is located 330m west of the Site and measures approximately 105m².
- 6.8. **Pond 5 (P5)** is located 425m west of the Site and measures approximately 90m².
- 6.9. Both P4 and P5 are obscured by surrounding tree cover, limiting detailed assessment. However, Chesterfield Road runs parallel between the Site and these ponds, likely representing a significant barrier for GCN dispersal.

7. Common Reptiles

- 7.1. Reptile surveys were undertaken within areas of suitable habitat for this group within the Site. On the 18th May 2025 a total of 159 'tins' (0.5 x 0.5 metre squares of heavy

roofing felt which are often used as refuges by reptiles) were distributed over the suitable reptile habitat within the Site.

- 7.2. These tins were left in place for at least two weeks to 'bed in' and subsequently surveyed for reptiles beneath or upon the tins during suitable weather conditions.
- 7.3. Surveys were undertaken during suitable weather conditions over seven visits between May and September. Two extra surveys were conducted due to the previous surveys exceeding optimal temperatures.
- 7.4. The survey results are summarised in Table 1.

Date	Survey Number	Reptiles Recorded
30/05/2025	1	2 Juvenile Grass Snake
06/06/2025	2	1 Juvenile Grass Snake
25/06/2025	3	1 Juvenile Grass Snake
11/08/2025	4	x
13/06/2025	5	x
01/07/2025	6	x
08/07/2025	7	x
29/09/2025	8	x
02/10/2025	9	x

7.5.

Table 1. Reptile Survey Results 2025

- 7.6. Grass Snakes were recorded during refugia surveys, with a peak count of two individuals recorded. It is therefore considered that the Site is utilised in low numbers by Grass Snake.

8. Passage and ground nesting Birds

- 8.1. Following the pre-application advice received from the Local Planning Authority bird surveys have commenced onsite covering the Spring passage period 2026 and will continue across the breeding season for 2026. Initial results have

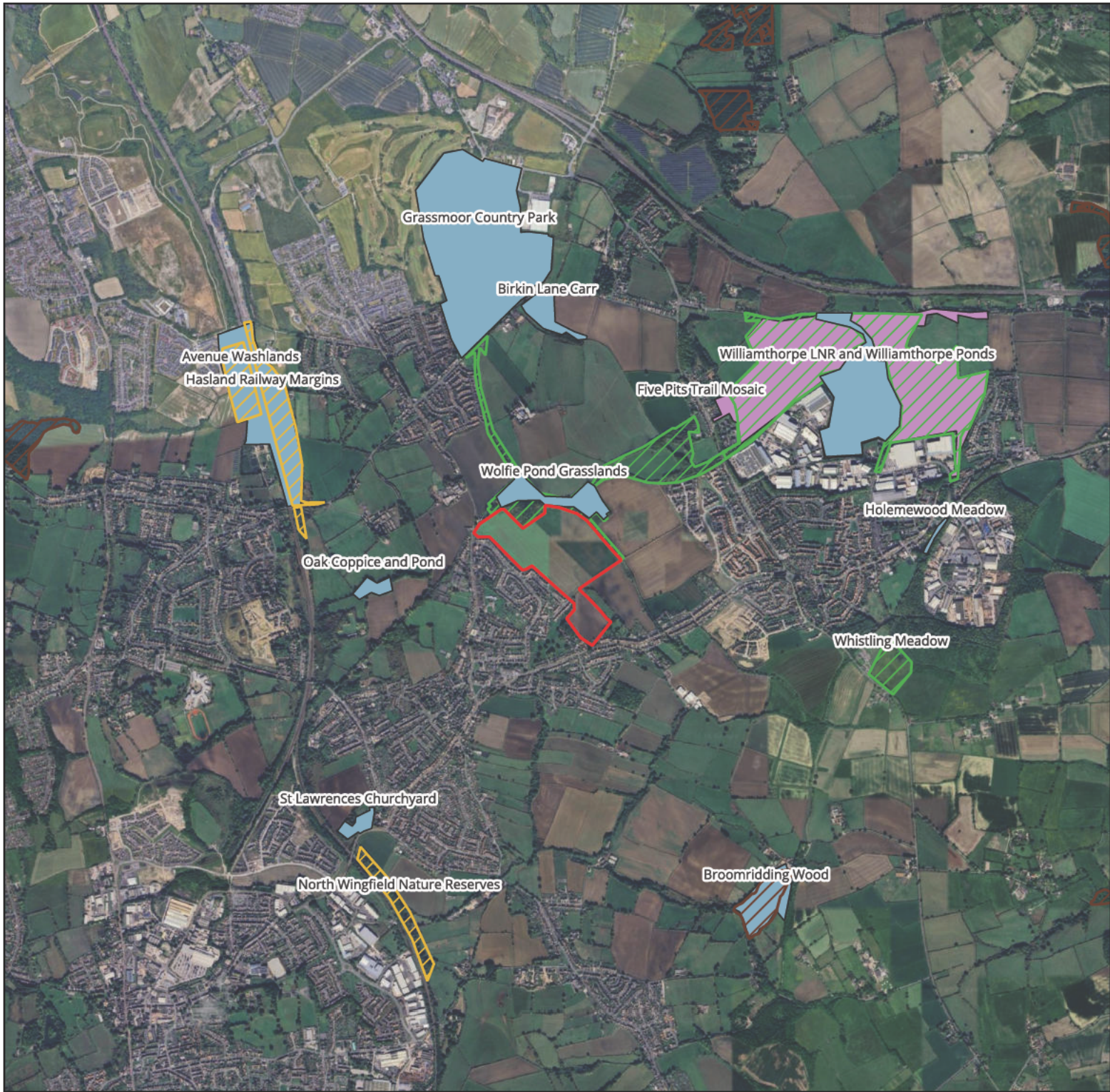
recorded no interest onsite related passage species such as Golden Plover *Pluvialis apricaria*. However, a single pair of Skylark *Alauda arvensis* have been recorded onsite. Full survey results will be presented as part of the Ecological Assessment.

9. Conclusion

- 9.1. Overall, the Site is of generally low ecological value, being predominantly composed of two fields of agricultural grassland. However, the Site does support a known presence of several protected species such as Reptiles and Bats (although no roosting site have been confirmed). These species are likely to be associated with boundary features such as hedgerows, trees, and adjacent woodland rather than the arable fields themselves. Bird surveys currently in progress, although the initial results show that the Site is of limited interest to passage and ground nesting birds.
- 9.2. On the basis of the survey results, it is considered that ecological impacts relating to any forthcoming development can be avoided and / or mitigated, as necessary to safeguard the ecological value of the Site. Indeed, wherever possible enhancements will be designed into the scheme to ensure an overall betterment in biodiversity as part of the proposals.

APPENDIX 1

Ecological Designations Plan



KEY

- Site Boundary
- Ancient Woodland
- Sites of Special Scientific Interest (SSSI)
- Local Wildlife Sites
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- Potential Local Wildlife Site (PLWS)
- Derbyshire Nature Reserve (DNR)

0005 North Wingfield

Site Location and Ecological Designations

V1.1 04/07/2025

0 500 1,000 1,500 2,000 m



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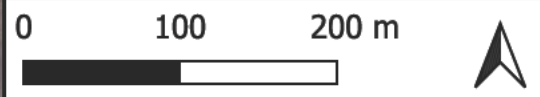
APPENDIX 2

Baseline Habitats Plan



KEY

-  Site Boundary
-  Hardstanding
-  Modified grassland
-  Ruderal Vegetation
-  Arable Fields
-  Hedgerows
-  Ditch



0005 North Wingfield, Derbyshire
Ecological Baseline
V1.1 14/07/25



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APPENDIX 3

Survey Results



KEY

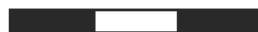
- Site Boundary
- Bat Survey Transect
- Location of Static Detector
- ★ Location Where Grass Snake Were Recorded
- Ponds within 500m of the Site (GCN)
- 50m Buffer
- 250m Buffer
- 500m buffer

0005 Land at North Wingfield, Derbyshire

Survey Results

V1.1 10/12/2025

0 100 200 300 m



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