

Newark Road,  
Sutton-in-Ashfield

Ecological Impact Assessment (EcIA)



Client:

Harron Homes Ltd

Report Reference:

RSE\_6136\_R3\_V1\_ECIA

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**PROJECT**

Client: Harron Homes Ltd

Project: Newark Road, Sutton-in-Ashfield

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Report Title Ecological Impact Assessment

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## 1 EXECUTIVE SUMMARY

### 1.1 Background

- i RammSanderson Ecology Ltd was instructed by Harron Homes Ltd to carry out an Ecological Impact Assessment (EclA) at land off Newark Road, Sutton-in-Ashfield to assess the likely significant effects of the project on all ecological features. This report will be used to inform a planning proposal for residential development of the site and information to submit with a planning application.
- ii The site was located to the south of Newark Road. It comprised predominantly of arable fields, bounded by hedgerows and lines of trees.

### 1.1.2 Designated Sites

- iii No significant impacts upon designated sites is anticipated as a result of the proposals. The site is within the buffer zone of the potential proposed Special Protection Area Sherwood Forest; however the site contains no suitable habitats for the candidate species.
- iv The proposals are not of a type that are included within the Impact Risk Zone for the statutorily designated sites it falls within.
- v The nearest non-statutorily designated site, Hamilton Hill LWS, lies 200m north-east of the site but is not connected to the application site terrestrially.

### 1.1.3 Habitats

- vi One Habitat of Principal Importance were recorded on Site (hedgerow). All other habitats were common and widespread and offered limited ecological value. However, they do offer conservation value as an ecological corridor and should be maintained on Site (as is planned). Two stands of Japanese knotweed were recorded on site. This is a Schedule 9 (Wildlife and Countryside Act, 1981 as amended), under which it is an offence to cause them to spread in the wild.

### 1.1.4 Great Crested Newt

- vii One wet ditch (Ditch 1) was located on site. A further five ponds and one ditch (ditch 2) were located within 500m of the site which were separated by a barrier to dispersal in the form of main road, and so these further ponds were scoped out for GCN breeding potential. Ditches 3 and 4 were within commuting distance to the site, however, were scoped out due to the commuting habitat being sub-optimal arable field, and the ditches being ephemeral drainage ditches unlikely to consistently hold water.
- viii The majority of the site comprised of sub-optimal habitat for GCN in the form of frequently disturbed arable land. The poor semi-improved grassland, hedgerows, marshy grassland and scrub within the small area to the west was more valuable, with some hedgerows proposed for removal for access.
- ix An environmental DNA (eDNA) survey was conducted in June 2022 on Ditch 1 which was returned as 'Positive', indicating GCN presence within Ditch 1. A suite of traditional surveys was conducted in optimal timings during 2023, resulting in no GCN recorded.
- x Given the lack of suitable habitat, and waterbodies within the area, it is considered highly likely that the eDNA was a false positive. Therefore, no further surveys or mitigation were deemed proportionate.

### 1.1.5 Bats

- xi Two trees were assessed as having 'high' bat roosting potential, with Tree 17 being subject to further emergence surveys due to its planned removal within the proposals. No emergences were recorded during

these surveys and as such, bat roosts are considered to be likely absent from site and therefore the removal of these trees will not require further mitigation or a Protected Species Licence (PSL).

- xii The primary foraging and commuting routes for bats are considered to be the sites hedgerow habitats which are being retained for the most part with small amounts lost for infrastructure. However, a woodland buffer is to be planted as per the proposals which will help compensate. Loss of the arable habitat is considered to have negligible impact on bat foraging locally (this habitat was assessed as low quality). However, to prevent adverse impacts on bat activity within the area, a lighting strategy for the site is recommended to be sympathetic to nocturnal fauna.

#### **1.1.6 Birds**

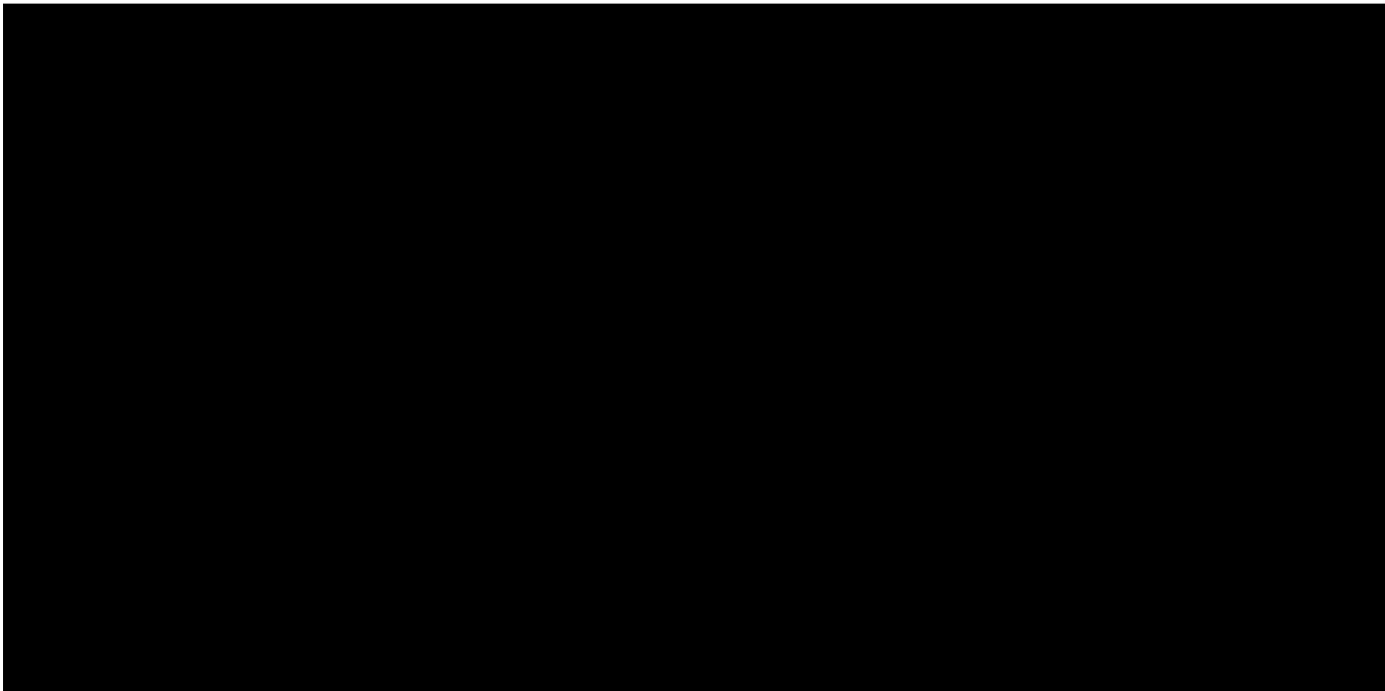
- i The scrub, treeline, arable and hedgerows on site are suitable for bird nesting sites. However, no suitable nesting habitat for Schedule 1 birds was recorded on site and these are considered likely absent. Removal of some hedgerow for access is predicted. Some hedgerow removal is expected for infrastructure as part of the proposals which will impact on availability of breeding and foraging resources for birds. However, proposed woodland buffer and hedgerow planting will compensate for this.
- xiii As such impacts upon breeding birds are anticipated to be at a local level. Any maintenance / pruning works on hedgerows should be completed outside of the bird nesting season (which is considered to be March to September inclusive).

#### **1.1.7 Reptiles**

- xiv The dense scrub, marsh and poor semi-improved grassland and hedgerows provided opportunity for commuting, refuge seeking and foraging reptiles. As such, a suite of reptile surveys was undertaken following standard methodology as outlined in Surveying for Reptiles (Froglife, 2015). No reptiles were recorded during the course of the surveys, however there remains a residual risk for reptile to pass through the site, therefore vegetation clearance is recommended to be undertaken following the methodology outlined in section 5.

#### **1.1.8 Water Vole, Otter and White-Clawed Crayfish**

- ii Habitats on site were deemed negligible for the above species to persist and it is therefore considered unlikely for riparian species to be present or affected by proposals.







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## 2 INTRODUCTION AND BACKGROUND

### 2.1 Purpose and Scope of this Report

- i RammSanderson Ecology Ltd was commissioned by Harron Homes Ltd. to assess the potential for protected species and habitats to be present on the site off Newark Road, Sutton-in-Ashfield.
- ii To complete an EclA of the proposals, a desk-based assessment, Extended Phase 1 Habitat Survey and protected species assessments were carried out based upon the findings of the Preliminary Ecological Appraisal (PEA). This report is a stand-alone EclA which has been prepared following current guidance (CIEEM, 2018) and can be used to lawfully determine a planning application in line with current planning policy<sup>1</sup>. This report does not form part of a wider discipline Environmental Impact Assessment (EIA) of Environmental Statement (ES), nor does it confer the need for any such documentation.
- iii The study area was defined depending on the proposals, desk study and applicable legislation (Appendix 1) as shown in the enclosed Site Location Plan (Figure 3) and Phase 1 Habitat plan (Appendix 5) plus a buffer zone extended to include the Zone of Influence (see section below) of the proposals (hereafter referred to as the "Site").
- iv This ecological impact assessment is based on a review of the development proposals provided by the Client in Drawing: EMS2254\_102E\_01 (Appendix 3), desk study data (third party information) and surveys of the Site. The aims of this report are to:
  - Classify the habitat types at the site based on standard Phase 1 Habitat survey methodology;
  - Evaluate any potential for protected species to be present;
  - Identify any ecological constraints that may affect the scheme design;
  - Provide recommendations for any further actions that might be required (for example, to monitor badger setts periodically through construction);
  - Identify likely significant effects on ecological receptors;
  - Assess if the proposals are compliant with legislation and policy relating to biodiversity; and
  - Identify opportunities for ecological enhancement to provide net biodiversity gain in line with the National Planning Policy Framework (NPPF, 2021).
- v This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RammSanderson Ecology Ltd.
- vi The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Constraints and Opportunities Plan are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013) and follow current guidance (CIEEM, 2018).

### 2.2 Zone of Influence

- i The Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. The Zone is determined by the development proposals in relation to individual species ecological requirements indicated in best practice guidelines.
- ii In relation to great crested newts (GCN), the zone of influence is considered to be up to 500m from the site boundaries, as this is the distance that Natural England would require to be considered in relation to GCN

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<sup>1</sup> Office of the Deputy Prime Minister Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System

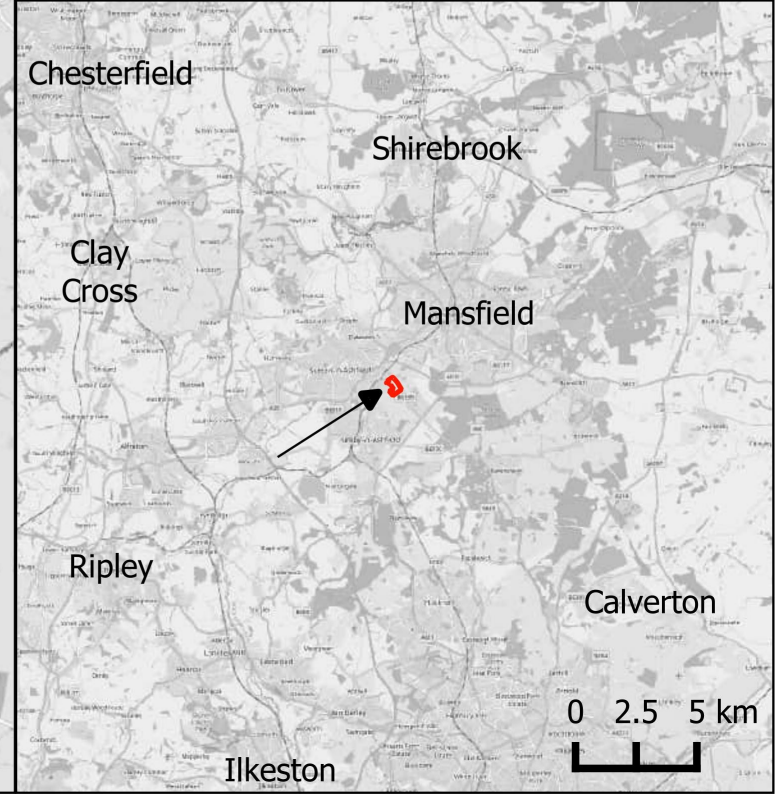
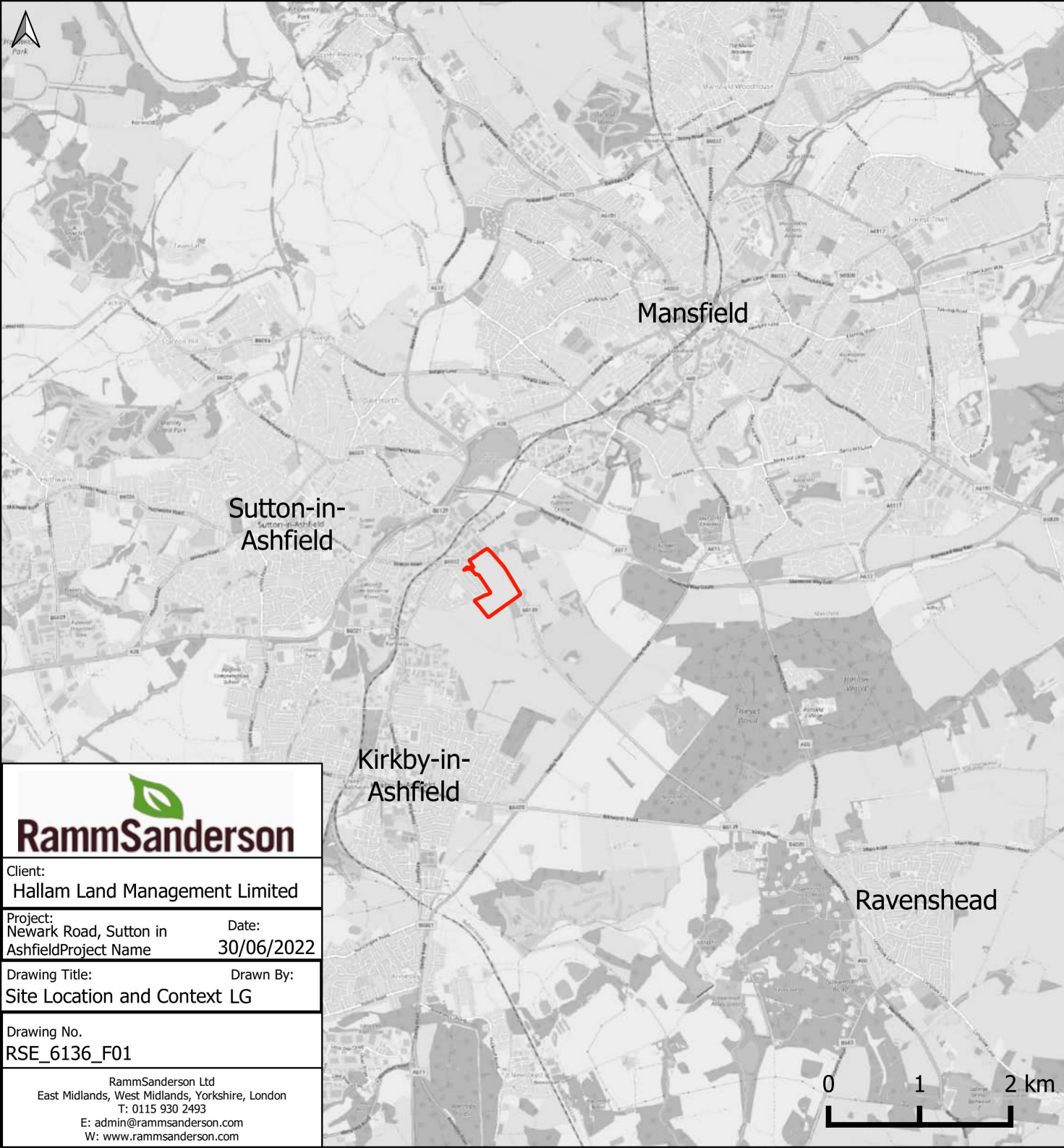
licensing. Guidance set out within Natural England's Method Statement template, to be used when applying for a Great Crested Newt development licence, states that surveys of ponds within 500m of the site boundary are only required when '(a) data indicates that the pond(s) has potential to support a large great crested newt population, (b) the footprint contains particularly favourable habitat, (c) the development would have a substantial negative effect on that habitat and (d) there is an absence of dispersal barriers.'

- iii For badgers, the zone of influence is typically 30-50m from the Site boundary as this is the distance within which a sett can be damaged or disturbed by heavy machinery.
- iv For designated sites, the Zone of Influence can be up to 10km from the site and this is termed the Impact Risk Zone (IRZ). Where sites occur within an IRZ the requirement for a Habitat's Regulations Assessment or Environmental Impact Assessment may be triggered.

### **2.3 Site Context and Location**

- i The site is located in the town of Sutton-in-Ashfield, Nottinghamshire (central grid reference SK 51681 58259). The site comprised of two arable fields with associated hedgerows, dense scrub and lines of trees. To the north of the site is Mansfield, and to the west Sutton-in-Ashfield. To the south was a block of arable fields.





 <b>RammSanderson</b>	
Client: Hallam Land Management Limited	
Project: Newark Road, Sutton in Ashfield Project Name	Date: 30/06/2022
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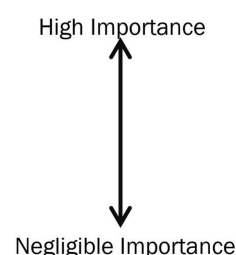
### 3 METHODOLOGY

#### 3.1 Ecological Impact Assessment

i The ecological impact assessment is based on the standard best practice methodology provided by the Guidelines for Ecological impact Assessment (CIEEM, 2021). The assessment identifies important sites, habitats, species and other ecological features that are of conservation value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Local Biodiversity Action Plans.

ii The importance of an ecological feature is considered within a defined geographical context. The following frame of reference is used, or adapted to suit local circumstances:

- International and European
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- River Basin District
- Estuarine system/Coastal cell
- Local
- Below Local level e.g. on site only



iii Consideration of impacts at all scales is important, and essential if objectives for no net loss of biodiversity and maintenance of healthy ecosystems are to be achieved.

iv In identifying impacts, the review considers the Client’s Site proposals and any subsequent recommendations made are proportionate / appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- **Avoid:** Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- **Mitigate:** Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- **Compensate:** Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
- **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

v For the purpose of this EclA, a ‘significant effect’ is an effect that either supports or undermines biodiversity conservation objectives for ‘important ecological features’ (explained in 3.1.i.) or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects are considered significant at the range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the ecological consequences of the project are understood. In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).

vi Note: The following definitions are used for the terms ‘impact’ and ‘effect’ throughout this report:

- **Impact** – Actions resulting in changes to an ecological feature. For example, the construction activities of a development removing a hedgerow.



- **Effect** – Outcome to an ecological feature from an impact. For example, the effects on a dormouse population from loss of a hedgerow.

### 3.2 Desk Based Assessment

- Data regarding statutory and non-statutory designated sites, plus any records of protected or Priority species and habitats was requested from the local ecological records centre and online resources, details of which are provided in Table 1 below.

**Table 1: Consulted resources**

Consultee/Resource	Data Sought	Search Radius from Boundary
Nottinghamshire Biological and Geological Records Centre	Non-Statutory Site Designations, protected/Priority species records	2km
<a href="http://www.magic.gov.uk">www.magic.gov.uk</a> <sup>2 3</sup>	Statutory Site Designations	5km
	NERC Act (2006) Habitats	1km

*NB: Desk study data is third party controlled data, purchased or consulted for the purposes of this report only. RammSanderson Ecology Ltd cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.*

### 3.3 Phase 1 Habitat Survey

- An extended Phase 1 Habitat Survey of the site was completed to identify habitats present within the site. All habitats within and adjacent to the site boundary were described and mapped following standard Phase 1 Habitat Survey methodology (JNCC, 2016), which categorises habitat type through the identification of individual plant species.
- Nomenclature follows Stace (Stace, 2019) for vascular plant species and the DAFOR scale for relative abundance was used in the field to determine dominant plants within habitats and communities (D = dominant, A = abundant, F = frequent, O = occasional and R = rare).

### 3.4 Protected / Priority Species Scoping Assessment

- The habitats on site were assessed for their suitability for supporting any legally protected or Priority species that would be affected by the proposed development. This includes invasive non-native plant species such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*).
- The full scope of species assessments and survey methods are detailed in Appendix 3. Any incidental sightings of individual species or field signs such as footprints, latrines or feeding remains discovered during the survey were noted.

<sup>2</sup> Multi Agency Geographic Information for the Countryside Interactive GIS Map.

<sup>3</sup> MAGIC resource was reviewed on the 01/07/2022

### **3.5 Limitations**

- i It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

### **3.6 Accurate lifespan of ecological data**

- i The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for approximately 2 years, notwithstanding any considerable changes to the site conditions.

## 4 BASELINE CONDITIONS

### 4.1 Surveyor Competency

- i The ecological site walkover and badger survey was conducted by Aleah Maltby MSc, whom has been a professional ecologist for 4 years and holds a class 1 licence for GCN (2021-53915-CLS-CLS).
- i The eDNA survey, reptile surveys and nocturnal surveys were conducted by multiple surveyors who were deemed suitably qualified to carry out these surveys using the methods described in Section 4.
- ii The surveys were completed during suitable conditions as detailed in Appendix 1 (Table 8). Desk study results, Phase 1 plan and Phase 1 habitat descriptions are provided in Appendix 2, Appendix 3 and Appendix 4 respectively.

### 4.2 Designated Sites

#### 4.2.1 Statutory Designated Sites and Non-Statutory Designated Sites

- iii The Site is within the buffer zone of the potential proposed Special Protection Area Sherwood Forest, a candidate site for SPA classification. However, the site contains no suitable nesting or foraging habitat for any of the candidate species which comprise of nightjar *Caprimulgus europaeus*, woodlark *Lullula arborea* and honey buzzard *Pernis apivorus*.
- iv The Site lies within 5km of two SSSIs, however, at the location of the site, the proposals are not of a type that are included within the Impact Risk Zone for these nationally designated sites as it does not fall into any of the following categories:
  - **Infrastructure:** Airports, helipads and other aviation proposals
  - **Air pollution:** Livestock and poultry units with floorspace > 500m<sup>2</sup>, slurry lagoons & digestate stores > 750m<sup>2</sup>, manure stores > 3500t.
  - **Combustion:** General combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
- v The closest non-statutory site is Hamilton Hill LWS, located 200m north-east of the site. This is designated for its acid grassland and is not connected to the site terrestrially.

### 4.3 Habitats<sup>4</sup>

- vi The majority of habitats on site were generally of limited botanical interest and poor species diversity. The value of habitats such as hedgerows, tree lines, dense scrub were largely noted in their potential to support a range of protected / Priority faunal species rather than for their botanical value. The treelines and hedgerows offered some value as ecological corridors for the dispersal of fauna and flora into the wider countryside, particularly those located adjacent to the southern boundary.
- vii No protected or Priority plant species were observed, and all plant species encountered were common, widespread, and characteristic of the common habitat types they represent.

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<sup>4</sup> Full Phase 1 survey results are displayed in Appendix 5.

### 4.3.1 Invasive Floral Species

- viii Japanese knotweed was recorded within two areas on site. This is a Schedule 9 (Wildlife and Countryside Act, 1981 as amended), under which it is an offence to cause them to spread in the wild.

**Table 2: Phase 1 habitat types and their ecological importance**

Habitat	JNCC Code	Area (m <sup>2</sup> )	Proportion of Site Area	Ecological Importance & Outcome of Proposal
Dense Scrub	A2.1	3202	1.5%	Moderate ecological value, some likely to be lost in proposals.
Broad-leaved scattered trees	A3.1	N/A	N/A	Inherently important & support wide range of species, including nesting birds & possible bat roosts. Majority to be retained within proposals.
Mixed parkland/scattered tree line	A3.3	N/A	N/A	Inherently important & support wide range of species, including nesting birds & possible bat roosts. Majority to be retained within proposals.
Marshy Grassland	B5	887	0.4%	Moderate ecological value, some likely to be lost in proposals.
Poor Semi Improved Grassland	B6	9608	4.5%	Moderate ecological value, some likely to be lost in proposals.
Dense continuous bracken	C1.1	391	0.2%	Some ecological value, some likely to be lost in proposals
Tall Ruderal	C3.1	480	0.2%	Some ecological value, some likely to be lost in proposals
Arable	J1.1	198662	93%	Limited ecological value, will be entirely lost within proposals.
Intact Species Poor Hedgerow (H3 + H4)	J2.1.2	N/A	N/A	May support a range of protected species, primarily nesting birds. To be retained and enhanced within the development. Additional native woody species to increase botanical diversity is recommended.
Defunct Species Poor Hedge (H1 + H2 + H5+ H6)	J2.2.2	N/A	N/A	
Wet Ditch	J2.6	N/A	N/A	Moderate ecological value, likely to be retained in proposals.



#### 4.4 Protected / Priority Species/Species Groups<sup>5</sup>

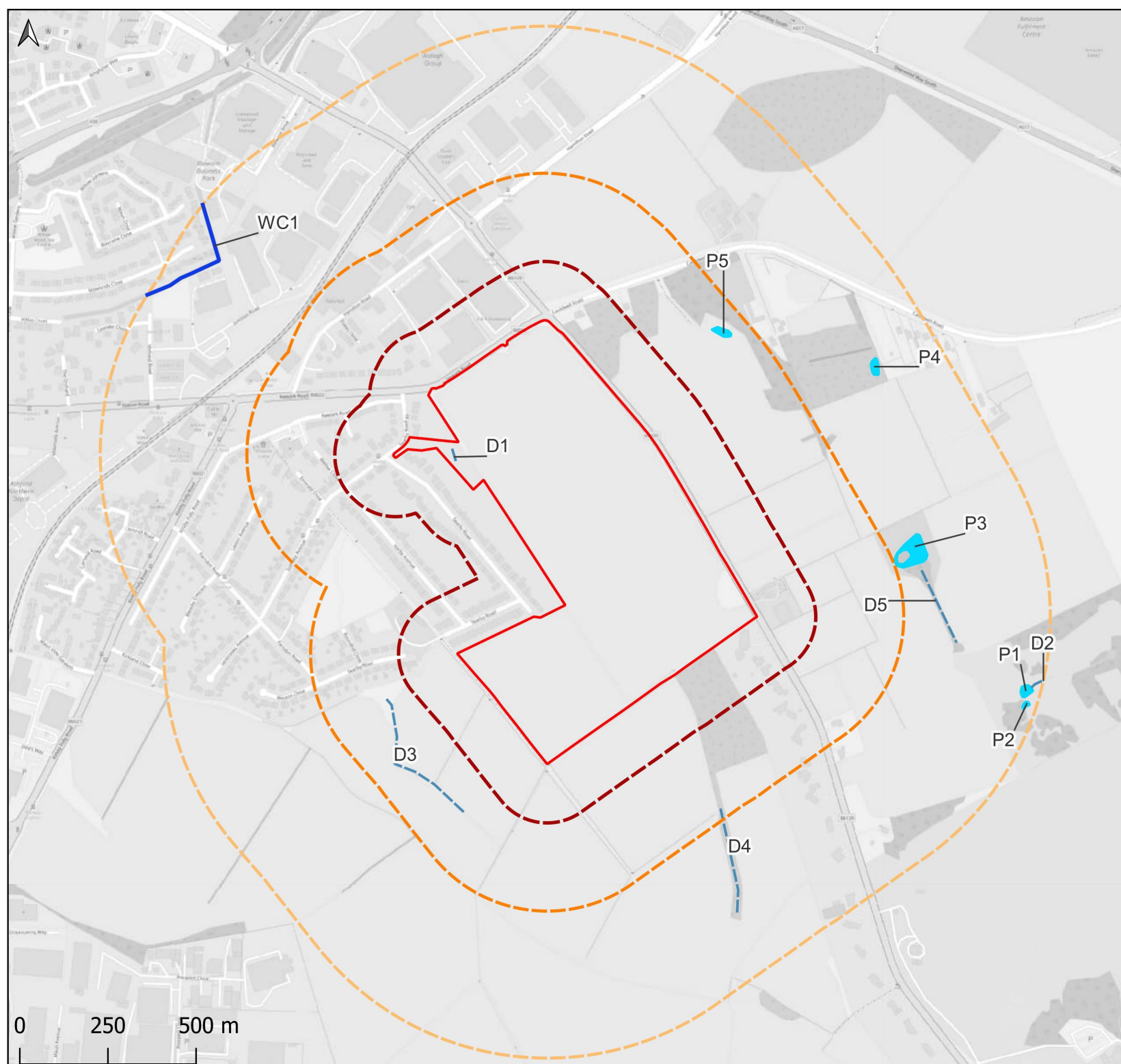
- i The presence/likely absence of protected species to be present on site and impacted by the proposals is discussed under the headings below.

##### 4.4.2 Great Crested Newt (GCN)

- i 4 records of GCN were returned within the desk study over 1km away from the site. One wet ditch (Ditch 1) was located on site, and 4 other ditches were recorded off site, Ditches 3 and 4 within 250m of the site, and Ditch 2 within 500m. A further five ponds were located within 500m of the site which were separated from the site by Newark road and Coxmoor Road with raised kerbs on one side, which act as significant barriers to the dispersal of this species, and so these further ponds were scoped out for GCN breeding potential. Ditches 3 and 4 were located within 250m of the site boundary and had some terrestrial connectivity to the site. However, connectivity from Ditch 4 in particular would require GCN commuting across arable habitat which is subject to intense and frequent management and therefore is considered sub-optimal. Ditches 3 and 4 were further scoped out as they were ephemeral drainage ditches from nearby arable fields which are unlikely to hold water consistently throughout the year, reducing their suitability for GCN during the breeding season. Furthermore, it is likely that these ditches will contain running water when in use.
- ii Terrestrial habitats on site were dominated by arable field, providing limited opportunities for foraging, refuge and commuting GCN. However, the poor semi-improved grassland, marshy grassland, hedgerows and scrub provided some opportunity as terrestrial phase amphibian habitat.
- iii An environmental DNA (eDNA) survey was conducted on Ditch 1 in June 2022 which was returned as 'Positive', indicating GCN presence within Ditch 1. The full report is included at Appendix 7.
- iv As such, a suite of GCN presence/absence surveys were undertaken between April to June 2023, resulting in no GCN recorded and a max count of three smooth newts. Full results, including survey methods, can be found in Appendix 7.

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<sup>5</sup> Full protected species survey results are in Appendix X.



**Key**

- Site Boundary
- 100m Buffer
- 250m Buffer
- 500m Buffer
- Pond
- River
- Ditch/Drain



Client:  
Hallam Land Management Limited

Project:  
Newark Road, Sutton in Ashfield

Drawing Title:  
Waterbody Plan

Drawing No. <b>RSE_6136_F02</b>	Scale @A4: <b>1:14650</b>	Rev: <b>V3</b>
Drawn By: <b>LG</b>	Date: <b>07/07/2022</b>	

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#### 4.4.3 Bats

##### Trees

- v All of the trees on site were subject to a ground level tree assessment. Tree T17 was located along the northern periphery of the site and had multiple features present resulting in a high potential to support roosting bats. Tree T23 was located within the middle of an arable field and was assessed as having a high potential to support roosting bats due to a multitude of suitable features present. All other trees were assessed as having negligible Bat Roosting Potential. A full table of results is located within Appendix 2. Tree 23 is to be retained within the proposals, located within a central green and was therefore scoped out of requiring further survey.
- vi Tree 17 was highlighted as being removed within the proposals to facilitate the new access road and was therefore subject to three dusk emergence surveys.

#### 4.4.4 Nocturnal Bat Survey 17/08/2022 – Dusk

- ii Two surveyors were optimally positioned to survey Tree 17. Sunset was at 20:18, the survey began at 20:03 and ended at 21:48. The first recorded bats were at 20:39 and which were two common pipistrelle (*Pipistrellus pipistrellus*) foraging along the hedgerow. No emergences were recorded during this survey.
- iii Bat activity on site was generally limited to common pipistrelle foraging and commuting along the hedgerow throughout the night. Three noctules (*Nyctalus noctula*) were recorded in the night, as well as two soprano pipistrelles (*Soprano pipistrelle*), all heard but not seen by the surveyor. One *Myotis* species call was recorded at 21:42, heard but not seen. The last recorded bat was at 21:48 and was a common pipistrelle, heard but not seen.

#### 4.4.5 Nocturnal Bat Survey 31/08/2022 – Dusk

- iv Two surveyors were optimally positioned to survey Tree 17. Sunset was at 19:57, the survey began at 19:42 and ended at 21:27. The first recorded bat was at 20:23 and was a common pipistrelle seen commuting along the hedgerow. No emergences were recorded during the survey.
- v Bat activity was limited to common pipistrelle, seen and heard commuting and foraging throughout the night, along the hedgerow and within the field. The last recorded bat was a common pipistrelle, heard but not seen at 21:05.

#### 4.4.6 Nocturnal Bat Survey 21/09/2022 – Dusk

- vi Two surveyors were optimally positioned to survey Tree 17. Sunset was at 19:09, the survey began at 18:54 and ended at 20:39. The first recorded bat was at 19:09 and was a noctule heard but not seen, assumed commuting overhead. No emergences were recorded during the survey.
- vii Bat activity was generally limited to noctules commuting overhead, and common pipistrelle foraging along the hedgerow. A max count of two common pipistrelle were recorded foraging together. One *Myotis* species was heard but not seen by the surveyor at 20:25. The last recorded bat was a common pipistrelle, heard but not seen at 20:34.

##### Foraging Habitat

- viii The treelines, hedgerows and poor semi-improved grassland provided potential foraging and commuting habitat, as well as providing connectivity to the wider landscape. Therefore, it is likely that the hedgerows and treelines in particular offer commuting and foraging resource for bats. In assessing the site against criteria in best practice guidelines (Collins J., eds, 2016) the site was considered to offer low quality foraging and commuting habitat for bats.



- ix As such, activity surveys were recommended to be conducted once per season with five days of static activity monitoring as per BCT guidelines. The results of these surveys are summarised below:

**Bat Activity Transect 1 – 20/06/2022 - Dusk**

- vii Sunset was at 21:35, the survey began at 21:35 and ended at 00:09. This transect was undertaken over a longer period of time due to ground conditions being slow to traverse. The transect route followed route 1 as can be seen in Appendix 7 and was undertaken in suitable conditions. The first bat was a noctule, heard but not seen at 22:01, presumed commuting overhead. Common pipistrelle and noctule were the only species observed during this transect, with the last bat, a common pipistrelle, heard but not seen at 00:07. In addition, only commuting behaviours were recorded during this survey and activity in general was considered to be low.

**Bat Activity Transect 2 – 19/07/2022 – Dusk**

- viii Sunset was at 21:20, the survey began at 21:20 and ended at 23:28. The transect route followed route 1, switched as anticlockwise and was undertaken in suitable conditions. The first bat was a common pipistrelle, heard but not seen, at 23:00. Two other common pipistrelle, heard but not seen, were recorded during the transect, the last recorded at 23:18. During this survey, there were only three recorded bats overall, and activity was considered to be low.

**Bat Activity Transect 3 – 07/09/2022 – Dusk**

- ix Sunset was at 19:40, the survey began at 19:40 and ended at 21:35. The transect route followed route 1 and was undertaken in suitable conditions. The first bat was a common pipistrelle at 20:20, foraging north and south along the adjacent hedgerow. Common pipistrelles were, again, the most frequently observed bat species during this transect, albeit sporadic. One soprano pipistrelle (*Pipistrellus pygmaeus*) was heard but not seen at 20:56, and a *Myotis* species was heard but not seen at 21:30. The last recorded bat was at 21:34 and was a common pipistrelle, heard but not seen. During this survey, foraging behaviour was observed by common pipistrelle, with low numbers of bats observed overall.

**Static monitoring results**

- x Two static detectors were positioned in optimal bat foraging habitat on site and left for five nights in June, August and September. One was located within a hedgerow/woodland parcel to the north of the site, and the other was located within an area of scattered trees and scrub at the south-eastern corner. The locations of the statics are shown below.

**Static 1**

- x As can be seen in Appendix 7 the species with the most passes from the static data was common pipistrelle which accounted for 81% of all bat passes recorded over the five nights during the static monitoring period. Four other species, soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctula*), *Nyctalus* sp. and *Myotis* sp. have been recorded passing this location, therefore accounting for the remaining 5.2%, 7.5%, 5.7% and 0.6% of bat passes respectively.

**Static 2**

- xi As can be seen in Appendix 7, the species with the most passes from the static data were also common pipistrelle, with an average of 80% of all bat passes over the five nights during the static monitoring period. Soprano pipistrelle, noctule, *nyctalus* sp and *myotis* sp. were also recorded passing this location, accounting for 12.7%, 2%, 4% and 1% of bat passes respectively.