Wain Estates (Land) Limited

Wilderness Park
Land North of Wilderness Lane, Great Barr, Birmingham

ECOLOGICAL IMPACT ASSESSMENT

October 2023

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1.0 NON-TECHNICAL SUMMARY

Report Scope and Methodology
• FPCR were commissioned by Wain Estates (Land) Limited to undertake an Ecological Impact Assessment (EcIA) of Land West of Birmingham Road, Great Barr to provide an ecological baseline for the Site and determine its ecological importance. • The proposals for the Site are for a residential development of up to 150 dwellings with associated access, parking, green infrastructure, attenuation features and Countryside Park with ecological enhancements. • A suite of ecological surveys were undertaken to inform this assessment, including an extended UK Habitat survey, a desktop study and a range of protected/notable species surveys.
Ecological Baseline
• The Cannock Extension Canal SAC is situated approximately 8.8km from the Site and the Fens Pool SAC is located approximately 13km from the Site. • Merrion Wood LNR is approximately 25m north of the Site. • An additional three LNR are present in the wider environment situated between 1.3km – 1.5km from the Site boundary. • The whole site falls within the boundary of the Peak Farmhouse SINC. The Site was upgraded from a SLINC to a SINC as part of the now withdrawn Black Country Plan and in the emerging Sandwell Local Plan on the basis of the extensive network of hedgerows, moderate level of structural and botanical diversity and the populations of local fauna it supports. • An additional 15 non-statutory designated sites are present within 1km of the Site. Those closest to the Site include Hill Farm Bridge Fields (SINC & SLINC) (10m southwest), Wilderness Wood SINC (20m southeast) and Merrion's Wood LNR & ASNW (40m north). • Grassland is the dominant habitat present across the Site. All of the grassland was recorded as 'other neutral grassland' which was not a good fit for any of the NVC communities. Some limited area of increase species diversity were observed but the grassland present across the site was not identified as a habitat type that would be assessed at a level exceeding local importance. However, given the SINC designation the grassland has been attributed a regional level importance for the purpose of this assessment. • A good network of hedgerows is present across the Site, the majority of the hedgerows do meet the criteria to be classified as habitats of principle importance. Given the extent of the hedgerow network, this network has been identified one of the key ecological features of interest across the Site. • A number of mature hedgerow trees are present across the Site. A single Veteran tree has been recorded within the Site boundary. The mature trees present across the Site have been identified as being of local level importance, but the Veteran tree has been identified as County level importance. • Other habitats present in the Site included treelines, scrub, tall forbs and two ponds. The majority of these receptors were only recorded as been of Site level importance. • The Site provided some degree of suitable habitat for a range of protected/notable species including reptiles, bats, nesting birds, and great crested newts (GCN).

Report Scope and Methodology
• Reptile were not identified using the Site during the completed survey work. • Badgers and hedgehogs in the local area may use the Site for foraging and commuting purposes., however there was no evidence of these species during the various ecological surveys. • Breeding bird surveys were undertaken with some red list species recorded on site, the breeding bird assemblage was only identified as being of no more than Local level importance. • Transect and automated static surveys conducted in May, July and September 2023 have demonstrated that the Site is used by a relatively low number of common bat species for commuting and foraging. The assemblage using the Site was not considered to be notable and was only identified as being of local level importance. • Great crested newt eDNA surveys confirmed GCN were not using suitable ponds within the Site or accessible ponds surrounding the Site.
Residual Effects
• The assessment confirm that the proposals will not affect the integrity of the SAC identified with 15km of the Site. • The proposals have been designed to maximise the retention of the overall hedgerow network and provide new hedgerows on the alignment of the historic field pattern. Through the retention and long-term management of the existing and proposed hedgerow minor positive effect to the overall hedgerow network are likely. • Development of the Site will result some minor losses to the grassland habitats present within the Site. The grassland habitats affected by the proposals are areas which are degrading through unsuitable management. The proposals include the creation of a significant area of grassland enhancement which will be subject to long term management to maintain the grassland in 'good' condition. With the application of this mitigation major positive effects to the grassland habitat are predicted and the residual effects to the SINC site have been assessed as negligible. • No significant assemblage of protected or notable species have been recorded using the Site. From these results and given the overall mitigation package minor positive to negligible affect to these receptors are expected. • Given the habitat retention and enhancement the proposals can achieve significant net gain in habitat units (18.27%). The net gain for linear units does exceed 10% being 10.35%.

2.0 INTRODUCTION

2.1 The following Ecological Impact Assessment (EcIA) has been prepared by FPCR Environment and Design Ltd (FPCR) on behalf of Wain Estates (Land) Ltd. for the development proposals of Land North of Wilderness Lane, Great Barr (Central OS Grid Ref: SP 03947 95508) herein referred to as 'the Site'.

2.2 Over the appropriate survey periods in 2020, Ecological Solutions (Manchester) Ltd. (hereafter referred to as Ecological Solutions) completed a suite of ecological surveys across the Site. This survey work included: a general phase 1 habitat survey, detailed botanical surveys and all relevant protected species surveys. The protected species survey included surveys covering the following species and groups:

- Badgers;
- Breeding birds;
- Bat roost and activity surveys;
- Reptiles; and
- Amphibians.

2.3 A copy of the Ecological Assessment produced by Ecology Solutions detailing the survey methods applied and the results of the surveys are provided at Annex A. These results have been used to assist the assessment provided in the following assessment.

2.4 To support this planning application and inform our assessment additional detailed ecological survey work has been completed by FPCR in 2023. This additional survey work included further detailed botanical surveys and updates to the protected species and groups covered by Ecological Solutions. The results of these surveys are provided in the following assessment.

2.5 The aim of the EcIA is to:

- provide a summary of the methods and results of all new survey work and refer to previous work to establish an ecological baseline;
- identify and describe all potentially significant ecological effects associated with the proposed development on important ecological features;
- set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- provide an assessment of the significance of residual effects;
- identify appropriate enhancement measures and consider biodiversity net gain; and
- set out the requirements for post-construction monitoring.

Site Location and Context

2.6 The Site is located to northwest Great Barr, Birmingham and west of Birmingham Road. Existing residential development is situated immediately east and southeast of the Site. The Q3 Academy is situated immediately south of the Site and the Aston University Recreation Centre is located to

the west of the Site. Extensive area of sport fields are associated with the Q3 Academy and the Aston University facilities.

2.7 Habitats within the Site are dominated by unmanaged neutral grassland bound by a network of hedgerows. Other habitats present within the overall red line comprise scrub habitats, two ponds and a number of small abandoned stable buildings. Land within the red line boundary is approximately 27ha in size but only a small proportion of this area 6.28ha is affected by the proposed residential development and the development of the POS surrounding the LEAP.

Site Proposals

2.8 The proposals are for an outline planning application (with the exception of access) for the development of up to 150 new dwellings, a countryside park and associated works. The area affected by the proposed development with associated open space is approximately 6.28ha located on the northern and eastern extents of the Site.

2.9 On land outside the built development the implementation of new balancing facilities and a LEAP will result in the loss of additional areas of grassland. The balancing facilities have been sensitivity designed to provide areas of wetland adding ecological diversity to retained area of the Site. Overall, the proposals will enhance a significant proportion of the existing grassland (15.7ha) and the existing hedgerow network are retained within the proposals and will be subject to long term sensitive ecological management to improve and maintain these habitats.

3.0 LEGISLATION AND POLICY

3.1 Details on relevant national and local policy and legislation for ecology in relation to the development site are provided in Annex A. The policies and legislation most relevant are:

- The Conservation of Habitats and Species Regulations 2017 (CHSR) (as amended) in relation to the European Protected Species (EPS) great crested newt *Triturus cristatus* (GCN) and bats (all species); and European protected sites i.e. Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) which are collective Nation Site Networks and Internationally protected "Ramsar Sites" Annex II bat species of particular relevance in relation to SACs designated for bats.
- The Wildlife and Countryside Act 1981 (WCA) (*as amended*) in relation to all wild birds (including Schedule 1 species), other animals (notably Schedule 5 species), flora (those listed in Schedules 8 and 9) and Sites of Special Scientific Interest (SSSI);
- The Environment Act 2021;
- Protection of Badgers Act (PBA) 1992;
- Natural Environmental and Rural Communities (NERC) Act 2006 in relation to various priority species and habitats;
- Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995;
- National Planning Policy Framework (NPPF) September 2023;
- Local Planning Policy contained within the Black Country Core Strategy;
- Local Nature Reserves (LNR) as designated most recently by the NERC Act 2006;
- Non-statutory protected local sites including Sites of Importance for Nature Conservation (SINC);
- Local Biodiversity Action Plans (LBAP); and
- Birds of Conservation Concern (BoCC).

4.0 METHODOLOGY

4.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:

- Multi Agency Geographic Information for the Countryside (MAGIC);
- eCountability – Birmingham and the Black Country Biodiversity Data Search Service.

4.2 Further inspection of colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk) was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

4.3 The search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:

- 15km around the application area for sites of International Importance (e.g. Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites).
- 2km around the application area for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSIs) and species records (e.g. protected, Local Biodiversity Action Plan (LBAP) or notable species).
- 2km around the application site for sites of County Importance (e.g. SINC / SLINC sites)).

4.4 When handling data, species data were filtered to include records from the previous ten years only.

Extended Phase 1 Habitat Survey

4.5 The updated extended Phase 1 Habitat Survey and detailed botanical survey were completed on 1st and 2nd June 2023 and 10th July 2023 by a Principal Ecologist from FPCR Ecologist (FISC Level 4). Survey methods followed UKHab survey[1] technique and quadrat surveys. Further details of the survey method employed are provided at Appendix B. The habitats were broadly mapped in the field using an OS base map using QField.

4.6 Target notes and species lists were compiled for individual areas and assessments of abundance were made using the DAFOR scale. Vascular plant nomenclature follows Stace (2010)[2]. Whilst the species lists collected should not be regarded as exhaustive, sufficient information was gained during the survey to enable classification and assessment of broad habitat types and identify features likely to be of interest.

Invasive Plants, Notifiable Weed Species and Other Notable Flora

4.7 Consideration has been given as to the presence of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (*as amended*) (WCA 1981)[3] and the presence of any notable weeds including those covered under the Weed Act 1959[4] (where population is significant enough to be considered injurious).

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[1] Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. 2020. *The UK Habitat Classification User Manual 1.1* http://www.ukhab.org [Accessed 16/08/2023].
[2] Stace, C.A. (2010). New Flora of the British Isles. (3rd Ed.). Cambridge: Cambridge University Press
[3] Act of Parliament, (1981). The Wildlife and Countryside Act 1981 (as amended), London: HMSO.
[4] Act of Parliament. (1959). The Weed Act 1959. London: HMSO.

Faunal Surveys

Badgers

4.8 A detailed badger survey was undertaken across the Site by experienced ecologists from FPCR on 25 May 2023, in accordance with standard methodology[5]. This methodology requires the identification of field signs including:

- Setts: including earth mounds, evidence of bedding and runways between setts;
- Latrines: often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
- Prints and paths or trackways;
- Hairs caught on rough wood or fencing;
- Other evidence: including snuffle holes, feeding and playing areas and scratching posts.

4.9 Where setts are found, their status and level of activity is noted. Sett status is broadly categorised as follows:

- *Main sett* – usually continuously used with many signs of activity around, a large number of holes and conspicuous spoil mounds;
- *Annexe sett* – usually located close to a main sett and connected to it by well used paths. Annexe's may not be continuously occupied;
- *Subsidiary sett* – lesser used setts comprising a few holes and without associated well-used paths. Subsidiary setts are not continuously occupied;
- *Outlier sett* – one or two holes without obvious paths. These are used sporadically.

4.10 Level of activity is described as:

- *Well used* – clear of debris, trampled soil mounds and obviously active, with signs of activity such as presence of prints, dislodged guard hairs around the entrances;
- *Partially used* – some associated debris or plants at the entrance. Could be used with minimal excavation and usually with signs of activity within the vicinity, for example, badger pathways;
- *Disused* – partially or completely blocked entrances.

Bats - Roost Assessments

Ground Level Tree Assessments

4.11 All semi-mature and mature trees within the Site were inspected from ground level on 10th July 2023 to assess their potential to support roosting bats, and to enable recommendations with respect to the proposed works.

4.12 During the tree survey Potential Roosting Features for bats such as the following were sought (based on p16, British Standard BS8596:2015)[6]:

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar.

[5] Harris, S., Cresswell, P. and Jefferies, D. 1989. *Surveying Badgers*, Mammal Society.
[6] British Standard 2015. BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems.
- Woodpecker holes.
- Cracks/splits in stems or branches (horizontal and vertical)
- Partially detached, loose or platy bark.
- Cankers (caused by localised bark death) in which cavities have developed.
- Other hollows or cavities, including butt rots.
- Compression of forks with included bark, forming potential cavities.
- Crossing stems or branches with suitable roosting space between.
- Ivy stems with diameters $\geq$ 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between it and the trunk).
- Bat or bird boxes.
- Other suitable places of rest or shelter not listed above.

4.13 Where features suitable to be used as roost sites were identified, evidence of roosting behaviour was sought, comprising live or dead bats, droppings, urine staining and grease /scratch marks. Certain factors such as orientation of the feature, height from the ground, the direct surroundings and its location in respect to other features, may reduce enhance or reduce the potential value.

4.14 Based on the above, trees were classified into general bat roost potential groups based on the presence of such features. Table 1 broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based largely upon Table 4.1 and Chapter 6 in The Bat Conversation Trust survey guidelines[7].

4.15 Although the British Standard Document groups trees with moderate and high potential, these have been separated in Table 1 (as per Table 4.1 in the BCT guidelines) to allow more specific survey criteria to be applied to those trees likely to be affected by the proposals.

Table 1: Classification and Survey Requirements for Bats in Trees

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work / Actions
Confirmed Roost	Evidence of roosting bats in the form of live / dead bats, droppings, urine staining, mammalian fur oil staining, etc.	A Natural England derogation licence application will be required if the tree or roost site is affected by the development or proposed arboricultural works. This will require a combination of aerial assessment by roped access bat workers (where possible, health and safety constraints allowing) **and** nocturnal survey during appropriate periods (e.g. nocturnal survey - May to August) to inform on the licence. Works to a tree undertaken under supervision in accordance with the approved good practice method statement provided within the licence. **However,** where confirmed roost site(s) are not affected by works, work under a precautionary good practice method statement may be possible.

[7] Collins, J. 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd Edn). The Bat Conservation Trust.

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work / Actions
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	Aerial assessment by roped access bat workers (if appropriate) **and** / **or** nocturnal survey during appropriate period (May to August). Following additional assessments, a tree may be upgraded or downgraded based on findings. If roost sites are confirmed and the roost is affected by proposals a licence from Natural England will be required. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate.
Moderate Potential	A tree with Potential Roosting Features which could support one or more potential roost sites due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status). Examples include (but are not limited to); woodpecker holes, rot cavities, branch socket cavities, etc.	A combination of aerial assessment by roped access bat workers **and / or** nocturnal survey during appropriate period (May to August). Following additional assessments, a tree may be upgraded or downgraded based on findings. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate. If a roost site/s is confirmed and the roost site is affected a licence from Natural England will be required.
Low Potential	A tree of sufficient size and age to contain Potential Roosting Features but with none seen from ground or features seen only very limited potential. Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.	No further survey required but a precautionary working method statement may be appropriate.
Negligible/No potential	Negligible/no habitat features likely to be used by roosting bats	None.

Building Assessment

4.16 An update roost assessment of the former agricultural buildings effected by the proposals was undertaken by a licensed bat ecologist from FPCR (Natural England Class Licence Registration Number: 2015-12730-CLS-CLS) on 25th May 2023. This involved examination of the exterior of buildings/structures to determine their potential to support roosting bats.

4.17 As part of the assessment, the interior of the buildings/structures, including roof voids where present and accessible, were also visually assessed for evidence of bat activity and/or for the potential to be used by roosting bats. Evidence of a roost is determined as the presence of a dead or live bat(s), concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining. This methodology takes into account statutory guidance[8] and the subsequently issued BCT and JNCC guidance above.

[8] Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines. English Nature*, Peterborough.

Bat - Activity Surveys

4.18 Monthly activity and static detector survey were completed by Ecological Solutions in 2020. Given the limited level of activity recorded on land effected by the proposals, seasonal activity and static detector surveys were completed over the active season in 2023.

Transect Surveys

4.19 Activity transects were undertaken in May, August and September 2023. The primary objectives of the transect surveys were to identify any regularly used foraging areas and/or commuting routes and describe the species composition and species utilisation of the development area. This methodology takes into account the statutory guidance from English Nature (now Natural England)[9] and further guidelines introduced by the Bat Conservation Trust[3] and JNCC[10].

4.20 The transect routes were predetermined prior to survey in order to comprehensively cover all areas of the site and included point count stops to identify activity levels around the features of potential value to bats that are to be most affected by proposals (e.g. hedgerows, woodland, dense scrub etc.). Each point count was five minutes long, during which time all bat activity was recorded.

4.21 The dusk transects were commenced at sunset and were a minimum of 2 hours in duration. The dawn transect was started two hours before dawn. Each transect was walked at a steady pace and when a bat passed by, the species, time and behaviour was recorded on a site plan to help to form a general view of the bat activity present on site and to highlight any habitat types associated with bat activity.

4.22 Wildlife Acoustics Inc. Echo Meter Touch® bat detectors were utilised in conjunction with Echo Meter Touch® app and Apple Inc. iPad® (therein referred to as EM Touch detectors) during the activity transect surveys.

4.23 Post-survey, bat calls were analysed using Kaleidoscope© Pro (Wildlife Acoustics) software package by taking measurements of the peak frequency, inter-pulse interval, call duration and end frequency. From this the level of bat activity across the site in relation to the abundance of individual species foraging and commuting along habitats was assessed.

4.24 All transects were undertaken when conditions were suitable (i.e. when the ambient air temperature was ≥10ºC and there was little wind/rain) see Table 2.

Table 2: Activity Transect Survey Conditions

Date	Sunrise / Sunset	Start of Survey	End of Survey	Temp at start of survey (°C)	Rain	Wind 0-10	Cloud %
30.05.23	21:20	21:20	23:20	13	None	2	100
03.08.23	20:57	20:57	23:00	16	None	3	5
26.06.23	18.57	18.57	20.57	16	None	3	90
27.09.23	07.02	05.02	07.02	12	None	1	90

Automated Surveys

4.25 Static passive recording broadband detectors were deployed on site to supplement the manual transects surveys. In addition, passive recording is stipulated in the current BCT guidance[3]. Passive monitoring was undertaken using an automated logging system (Wildlife Acoustics Inc.

[9] English Nature 2004. *Bat Mitigation Guidelines*
[10] JNCC 1999. *Bat Workers Manual*

Song Meter® SM4 BAT FS bat detectors) with the output saved to an internal storage device. SM4 BAT FS devices were placed along linear features considered to be of value to bats, such as areas of dense scrub, woodlands and tree lines.

4.26 Devices were placed in each location for an extended period of time (minimum of five nights). In accordance with the BCT guidelines this report covers the first five nights of data. Any additional night's data were analysed for Annex II species and notable species only. Optimal conditions for bat activity are considered to be little to no rain/wind, and ≥10°C. Static detectors were programmed to activate 30 minutes before dusk and recorded continuously until 30 minutes following sunrise. The output from the detectors was subjected to computer analysis using Kaleidoscope© Pro (Wildlife Acoustics) software package to assess bat activity over this period.

Breeding Birds

4.27 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the site, two surveys were undertaken between dawn and 11.00 (two in May and one in June 2023). A route was mapped-out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and watercourses, and other features such as ponds and scrub. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or persistent strong wind (conditions which can negatively affect the results). Table 3 provides details of the breeding bird survey dates and weather conditions.

Table 3: Survey Dates and Conditions

Survey	Date	Cloud Cover (%)	Rain	Wind (Beaufort)	Visibility
1	09.05.23	70	None	1 – Light Air	Very Good
2	31.05.23	100	Light Showers	1 – Light Air	Very Good
3	15.06.23	0	None	1 – Light Air	Excellent

4.28 The methodology employed was broadly based on territory mapping[11] used for the British Trust for Ornithology (BTO) Common Bird Census (CBC). Standard BTO species codes and symbols for bird activities were used to identify birds and denote activity, sex and age where appropriate.

Great Crested Newts (GCN)

Habitat Suitability Index (HSI) Assessment

4.29 Ponds P1 and P2 within the site boundary and offsite ponds P3 and P4 were evaluated using the HSI scoring system developed by Oldham et al[12] on 7th June 2023.

4.30 The HSI scoring system produces a single index value of habitat suitability, derived from individual scores achieved under the following categories:

- Location within the UK
- Pond area
- Presence of water-fowl
- Presence of fish

11 Bibby, C.J., N.D. Burgess & D.A. Hill, 2000: Bird Census Techniques: 2nd Edition. London: Academic Press

12 Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). Herpetological Journal 10(4), 143-155pp

- Frequency of pond drying
- Water quality
- % shade
- Number of other ponds within 1km
- Quality of surrounding terrestrial habitat
- % cover by macrophytes

1.1 A score is assigned according to the most appropriate criteria level set within each attribute and a total score calculated of between 0 and 1. Pond suitability is then determined according to the scale shown in Table 4. Using the index score the predicted presence of GCN being found within a pond can be made, based on the proportion of ponds typically occupied at that suitability level.

Table 4: HSI Scores as a Measure of Pond Suitability

HSI score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Presence / Absence eDNA Survey

4.31 For all waterbodies within 500m of the Site, access request letters were issued by FPCR to the registered landowners.

4.32 Where access was granted and conditions within the waterbodies were suitable eDNA surveys were completed on the 7th June 2023 (P1 & P3) and the 29th June 2023 (P4) by a GCN licenced ecologist (2019-43992-CLS-CLS and 2022-10987-CL08-GCN respectively) using the Environmental DNA (eDNA) technique, which determines the presence / absence of GCN DNA within pond water samples. Methods employed were in accordance with the guidance set out in *Analytical and Methodological Development for Improved Surveillance of the Great Crested Newt, WC1067, Appendix 5. Technical advice note for field and laboratory sampling of GCN environmental DNA.* This methodology has been approved by Natural England for the determination of GCN presence/ absence.

4.33 These methods state that sampling is to be undertaken by appropriately licenced ecologists who collect a sample of water from each pond. This comprises taking samples of agitated water from 20 locations around each pond and mixing thoroughly. 15 ml of this water is then placed into each of the 6 sterile sample tubes containing preservative, precipitates and a DNA sequence that is used for degradation control. All samples are stored in accordance with the protocols provided by the laboratory. The samples are then transported under suitable conditions to the laboratory for analysis. Following analysis, results provided by the laboratory could have one of three outcomes which are described in Table 5 below.

Table 5: Description of Possible Results of eDNA Analysis

Result	Description
Positive	A positive result means that eDNA from GCN was detected and they have been present within the water in the 20 days preceding sampling. An eDNA score would be provided indicating the number of positive replicates from a series of twelve.

Result	Description
Negative	DNA from GCN was not detected; in the case of negative samples the DNA extract is further tested for PCR inhibitors and degradation of the sample.
Inconclusive	Controls indicate degradation or inhibition of the sample, therefore the lack of detection of GCN DNA is not conclusive evidence for determining the absence of the species in the sample provided. Degradation can occur through poor storage of the samples or kits and inhibition can occur through unexpected chemicals in the sample.

Reptiles

Habitat Suitability

1.2 On 25th May 2023 habitats were evaluated for their potential to support reptiles following guidance set out within the Herpetofauna Workers Manual,[13]. Habitats suitable for reptiles included south facing banks and field margins, transitional areas between long and short vegetation, together with other areas which provide basking and sheltering opportunities.

Presence / Absence Survey

4.34 Strategic reptile presence / absence survey surveys were completed by Ecological Solutions in 2020 over a limited area of the site. Given the habitat suitability across the site, update surveys have been completed by FPCR during suitable weather conditions in September and October 2023.

Table 6: Reptile Survey Dates & Conditions

Survey Number	Date	Time	Cloud %	Start Temp	Wind (Beaufort)	Rain
1	05/09/2023	07:52	0-10	17	0	0
2	12/09/2023	08.00	20-30	17	0	0
3	15/09/2023	09:35	80-90	16	1/2	0
4	22/09/2023	09:47	20-30	10	1/2	0
5	26/09/2023	16:30	30-40	16	2	0
6	29/09/2023	08:35	0-10	14	1/2	0
7	04/10/2023	09:00	90-100	11	1	0

Survey Conditions and Personnel

4.35 All ecology surveys were undertaken during favourable weather conditions by experienced ecologists from FPCR.

Impact Assessment

4.36 The assessment of significant ecological effects has been undertaken in accordance with CIEEM EcIA guidelines[14]. In summary, the process involves:

[13] Gent, T. and Gibson, S. (eds). 2003. Herpetofauna Workers' Manual (revised reprint), JNCC, Peterborough

[14] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (version 1.1). Chartered Institute of Ecology and Environmental Management, Winchester.

- **Establish Baseline** – this is based on desk study and field surveys which describes the existing and potential Important Ecological Features (IEFs) within the zones of influence specified.
- **Determine the Scale of Importance of Ecological Features** - importance is determined using geographical frames of reference: Local, Country, Regional, National and International. This assessment is based on a variety of factors, including statutory protection, statutory designation, conservation status, abundance and rarity.
- **Assess Significant Ecological Effects** –based on the importance of the ecological feature, magnitude of the effect and sensitivity of the features considered. This is description-based rather than applying a matrix which considers construction and operation effects only where relevant. The assessment assumes the proposed layout, intrinsic mitigation and routine ecological mitigation normally conditioned, and these are outlined clearly.
- **Mitigation** – This will be based on the mitigation hierarchy – avoidance, mitigation, compensation and enhancement. Any further mitigation measures required will be outlined to ensure residual effects are lowered to a level considered acceptable. Enhancements will seek biodiversity net gain in line with the NPPF. Monitoring will be considered where applicable.
- **Future Baseline and Residual Effects** – final conclusionary statements for the short, medium and long term.

Limitations

4.37 This assessment aims to provide baseline ecological data for the Site and as such presents an overview of the habitats and features present during the specific surveys undertaken to date. Due to the transient and complex nature of ecosystems, no investigation can provide a complete representation or prediction of the natural environment present, however every effort has been made to ensure an accurate description of the Site is presented, by following best practice guidance, experience and professional judgement.

4.38 Data provided by third party sources collated during the desktop study is generally made up from a wide range of sources including (but not limited to) those submitted by ecological consultancies, wildlife conservation organisations and volunteers. As such, this data is typically focused on areas of known nature conservation, is reliant upon formal surveys having been undertaken within an area or the presence of an expert within the locality (particularly for invertebrate records) and as such this data can never be fully relied upon as a complete ecological dataset for any given area. Rather, this data is used as a guide to likely presence of notable ecological features and can never be relied upon for likely absence.

4.39 All surveys were conducted during optimal bat season, in accordance with current guidance[3]. Some limited periods of increased wind speeds were recorded during the automated/static surveys, however the weather conditions were representative of the relevant month and season and as such is not considered to be a constraint to the quality of the field data.

4.40 Where calls could not be identified to species level, for example due to the lower quality of those recordings or where there are close similarities between species echolocation calls (for example among the *Myotis* or *Nyctalus* bats) making a definite identification difficult, contacts were identified to family only.

4.41 The SM4BAT+ records sound files of up to 12 seconds in length before a new file is created. The SM4BAT+ data files can highlight the presence of more than one bat of the same species if they are recorded simultaneously on the same sound file. It may not however be possible to determine whether consecutive sound files have been recorded as the result of a several individuals of the same species passing the detector as they commute across the landscape or are due to one bat repeatedly triggering the detector as it forages in close proximately for an extended period. Therefore, each sound file is counted as a single bat pass. The number of bat passes, for example, as expressed as an hourly average, provides an indication of the relative importance of the location sampled by the detector, rather than a true count.

5.0 ECOLOGICAL BASELINE

Desk Study

Designated Sites

Sites with a Statutory International Nature Conservation Designation

5.1 The site does not fall within the designation boundary of any site of international nature conservation importance or site within the national site network. Two national network sites lie within a 15km radius of the site. The Cannock Extension Canal SAC and SSSI lies approximately 8.8km to the north at its closest point. The SAC is designated for the large population of floating water plantain *Lurium natans* that it supports, in addition to the wide diversity of aquatic flora and rich dragonfly fauna.

5.2 The Fens Pools SAC is located approximately 13km to the south-west of the application site. Annex II species that are the primary reason for the designation of this SAC are GCN, an internationally notable species that occur as part of an important amphibian assemblage within the canal feeder reservoirs and series of smaller pools.

Statutory Designated Sites

5.3 Within 2km of the Site there four Local Nature Reserves (LNR) are present. These are described in Table 7 below and identified on Figure 1a: Site Location and Consultation Results Plan – Designated Sites.

Table 7: Statutory designated sites within 2km of the Site

Site Name	Site Description	Distance from Site
Merrion Wood (LNR)	Habitats include ancient semi-natural oak and beech woodland, pond and Grade II landscape (Repton design). Plants include bluebells. The site is advertised by the Local Authority as a recreational resource and described as having many trails and on-site car parking.	25m north
Hollywood (LNR)	Holly Wood is almost entirely woodland, mainly dominated by silver birch and sycamore with bluebells. It also contains a small area of wet grassland and a stream. The site is advertised by the Local Authority as a recreational resource. A single main footpath is present in the woodland and several additional permissive paths are also situated in the woodland.	1.3km south-east
Gorse Farm Wood (LNR)	Habitats include woodland, willow carr, streams, relic heathland and grassland. The site is advertised by the Local Authority as a recreational resource including providing a picnic area. A single main footpath is present in the woodland.	1.5km south-east
Forge Mill Lake (LNR)	12 ha lake containing two islands, one of which is managed by the RSPB, with an excellent Viewing Hide. Other habitats include wildflower meadows, a wet meadow and woodland plantations. The designated site is situated in the Sandwell Valley Country Park. The site is advertise as providing a recreational resource with footpath and parking for disabled visitors.	1.5km south

Non-Statutory Designated Sites

5.4 The whole of the site falls within the Peakhouse Farm SINC. As detailed within the Brimingham & Black Country Local Sites Assessment Report[15], the designation was upgraded from a partial SLINC based upon the extensive network of native hedgerows, moderate levels of structural and botanical diversity of the grassland and local faunal populations it supports, including breeding birds and bats.

5.5 The upgrade from a SLINC to a SINC formed part of the Black Country Local Plan Review which we understand is not proceeding which does provide a degree of uncertainty to the current status of the designation. Notwithstanding this matter and other potential matters relating to the assessment of habitat value within the overall SINC designation, without prejudice the following assessment is based on the Site being designated as the SINC but this does not mean we agreed with the proposed allocation.

5.6 The site also lies within a core ecological area as identified by the Brimingham and Black Country Nature Improvement Area ecological network mapping and was considered to provide connectivity between the Sandwell Valley and existing residential areas to the wider countryside.

5.7 A further 15 non-statutory designated sites covering the majority of the remaining open space locally are located within 1km of the site boundary and are outlined in Table 8 below and shown on Figure 1a.

Table 8: Non-statutory Designated Sites

Site name (Ref: Fig 1a)	**Approx. distance & direction from Site**	**Interest feature(s)**
Hill Farm Bridge Fields SINC & SLINC (2)	10m south-west	Small grassland fields which support calcareous grassland in areas with good quality hedgerows and scattered scrub.
Wilderness Wood SINC (3)	20m south-east	Small block of ancient semi-natural woodland with areas of wet woodland and a pond.
Ray Hall Sewage Works SINC (3)	840m south-west	Area of former sewage beds which have been colonised by neutral and marshy grassland, tall herbs and scrub.
Merrion's Wood LNR & ASNW (4)	40m north	Ancient semi-natural woodland. See above.
The Duckery SINC (5)	820m north-east	Area of ancient semi-natural woodland.
Ray Hall Sewage Works, Sandwell Valley SINC (6)	840m south-west	Area of former sewage beds within an active sewage works colonised by a diverse range of habitats.
Land at Yew Tree SLINC & PAWS (7)	340m south-west	A range of habitats including moderately diverse plantation woodland, grazed neutral grassland and areas of bramble within a wider green corridor.
Rushall Canal SLINC (8)	400 north-west	Section of the Rushall Canal that supports a reedswamp, neutral grassland and hedgerows.
Land Bordering the M6 Motorway SLINC (9)	680m south	Sections of motorway embankment comprised of neutral grassland with areas of scrub and planted trees. Provides a valuable corridor for local fauna.

[15] Birmingham and the Black Country Wildlife Trust (2018) *Birmingham & Black Country Local Sites Assessment Report. SA007 Peakhouse Farm*

Site name (Ref: Fig 1a)	Approx. distance & direction from Site	Interest feature(s)
Redhouse Park SLINC (10)	600m south	Former park with mature beech dominated woodland, an area of damp woodland and adjacent pools.
Land East of Chapel Lane SLINC (11)	560m east	Two ponds that have established from previous excavation works and remnant former moat within Great Barr Park. Surrounded by scrub, woodland and tall herbs.
Shustoke Farm SLINC (12)	420m north-west	Supports a mix of pasture, scrub, tall herb vegetation and hedgerows located within an area of open grassland. Drainage channels run across the site.
Whitecrest Open Space SLINC (13)	820m east	Area of open space which supports semi-natural broadleaved woodland, grassland and scattered scrub.
St Margarat's Hospital Grounds SLINC (14)	800m east	Grounds within the hospital which support semi-natural woodland.
Key: SINC – Site of Importance for Nature Conservation, SLINC – Site of Local Importance for Nature Conservation, ASNW – Ancient Semi-Natural Woodland, Replanted Ancient Woodland Site (PAWS)		

5.8 In addition, a total of 19 Potential Sites of Importance (PSIs) and six Linear Potential Sites of Importance (Linear PSI). These are displayed on Figure 1b along with a full list of sites. The closest PSI comprised Aston University Sports Grounds which lies adjacent to the western site boundary which includes a network of hedgerows that connect to the site. No further details were supplied for the linear features and the majority of the designations either were located adjacent to existing SINC / SLINCS or comprised golf courses and areas of open space in the area.

Protected/Notable Species

5.9 A number of species records from the previous ten years were provided within 1km of the Site by eCountability. The locations of protected/notable species records provided, from the last 20 years and filtered to represent species relevant to the Site, are shown on Figure 2a. Due to the large volume of bat data these are provided on Figure 2b.

5.10 A small number of records were returned from within the site. These included records of dunnock *Prunella modularis* , house sparrow *passer domesticus*, herring gull *Larus argentatus*, wood pigeon *Columba palumbus*, wren *Troglodytes troglodytes*, common frog *Rana temporaria*, common toad *Bufo bufo*, common cudweed *Filago vulgaris*, Japanese knotweed *Reynoutria japonica* and two badger *Meles meles* records dated from 2018. The northern badger records comprised a sett records and the other a dropping record. Common cudweed is listed as near threatened on the Vascular Plant Red Data List for Great Britain[16].

5.11 A large number of bat records were returned, mostly located to the north of the site from within Merrion's Wood LNR which included a number of roost records, with dates ranging from 2004-2022. Species included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P.pygmaeus*, Nathusius pipistrelle *P.nathusii*, pipistrelle species *Pipistrellus sp.*, noctule *Nyctalus noctula*, leisler's *Noctula leisleri*, Natter's bat *Myotis nattereri*, *Myotis* sp., whiskered bat

[16] Dines, T. D, Jones, R. A, Leach, S. J. *et al.* (2005) *The Vascular Plant Red Data List for Great Britain* [Online]. Available from: https://data.jncc.gov.uk/data/cc1e96f8-b105-4dd0-bd87-4a4f60449907/SpeciesStatus-7-VascularPlant-WEB-2005.pdf [Accessed 28/08/2023]

M.mystacinus, whiskered / brandt's bat *M.mystacinus/M.brandtii*, serotine *Eptesicus serotinus*, brown long-eared bat *Plecotus auritus* and an unidentified bat species. Of these records the closest to site comprised an unidentified bat species record located along the northern boundary of the Site dated from 2015.

5.12 Additional bird species listed on Schedule 1 of the Wildlife & Countryside Act 1981 (*as amended*) included barn owl *Tyto alba* records located approximately 820m to the north-east.

5.13 Other protected / notable species recorded included a small number of hedgehog records, smooth newt *Lissotriton vulgaris*, cinnabar moth *Tyria jacobaeae* and a small number of bluebell *Hyacinthoides non-scripta* records, located to the north within Merrion's Wood LNR and to the south-east of the Site.

5.14 No records of great crested newt *Tirturus cristatus* or native reptile records were returned.

Extended Phase 1 Habitat Survey

5.15 The following provides a resume of the habitats recorded during the updated surveys in June and July 2023. *The locations of the habitats described below are illustrated in Figure 3: Baseline Habitats Plan.* Detailed habitat descriptions and full species lists are provided at Appendix B.

Grassland

Other Neutral Grassland

5.16 The results of the detailed botanical surveys have indicated that none of the grassland recorded within the site are representative of NVC grassland communities: MG4-Alopecurus pratensis - Sanguisorba officinalis; MG5-*Cynosurus cristatus* - *Centaurea nigra*; or MG8 Cynosurus cristatus - Caltha palustris. Therefore, the neutral grasslands recorded to the east of the site would not be considered as Lowland Meadows Habitat of Principal Importance.

5.17 Much of the grassland was considered to be relatively species-poor, though indicator species for NVC communities were relatively constant across the field compartments. In relation to consideration under UK Habs assessment the grassland was classified as other neutral grassland in poor - good condition and none of the grassland within the site was recorded as being irreplaceable habitats.

5.18 The grassland is however considered to be in decline, particularly within the north-eastern compartments which have developed rank swards and are being encroached by ruderal species including common nettle *Urtica dioica* and thistles *Cirsium* sp.. Field F6 had much less open grassland sward with areas of dense bramble *Rubus fruiticosus* sp. scrub in the north-east and south-western corners, alongside dense stands of nettle, creeping thistle *Cirsium arvense*, great willowherb *Epilobium hirsutum* and rosebay willowherb *Chamaenerion angustifolium.* The sward had previously been classified as a MG6b community and it had transitioned to closer resemble a MG1 community dominated by coarser grasses including false oat-grass *Arrhenatherum elatius* and cock's-foot *Dactylis glomeratus* and was very species-poor with less than five species per square metre.

5.19 The most southern fields, which were considered to be the most diverse and in the best condition, also appear to be declining in species-richness. While field F3 still supported a small number of

lowland meadow indicator species, these had declined in abundance and overall the sward only supported an average of 9.8 species per square metre compared to the 15.4 previously recorded. Across the field there was less variation in community composition with less rush dominated sward present, possible due to a change in frequency of inundation. Field F5 had no evidence of marshy grassland that had previously been recorded in towards the centre of the field an no evidence of the notable plant oval sedge *Carex leporine*. The sward had become more uniform and although still represented a MG6b community, it had become grass dominated with forbs present at less than 20% and average of 7.2 species per metre square and therefore did not meet the broad criteria for other neutral grassland under the UKHabitat classification. The same results were found for field F14 with a lower average species count of 7.2, lower frequency of indicator and no distinct areas of marshy grassland present, only a few small, isolated patches of rushes.

5.20 The patches of yellow rattle previously recorded across many of the southern and western field compartments, although likely sown as part of an agricultural improvement, had also declined in its spread. The summary table below shows the difference between the communities identified during the detailed 2020 botanical survey. The number of indicator species include those highlighted in Appendix B as either neutral grassland or lowland meadow indicator species.

5.21 The grassland habitats present across the Site are common and widespread habitats at a regional level and would not normally be assessed exceeding local level importance. The increase ecological importance for the grassland present at the site is elevated through the SINC designation as such the grassland is for the basis of this assessment considered to be important at a Regional level.

Table 9: Comparison of NVC Communities and Indicator Species Recorded within the Site 2020-2023

Field Parcel	Ecological Solutions 2020	FPCR 2023
Field F1	MG6a & MG6b - 12	MG6b - 8
Field F2	MG6a - 8	MG6b - 9
Field F3	MG6a, MG4 & MG10b - 11	MG6b & MG10b - 12
Field F4	MG1a - 9	MG6b - 7
Field F5	MG6b & MG10 - 11	MG6b - 9
Field F6	MG6b - 5	MG1 - 4
Field F7	MG1a - 4	MG6b transitioning to MG1 - 5
Field F8	MG6b - 5	MG6b transitioning to MG1 - 2
Field F9	MG1a - 8	MG6b - 5
Field F10	MG7c - 8	MG6b - 6
Field F11	MG1a - 4	MG1 - 0
Field F12	MG6b - 8	MG6b - 8
Field F13	MG6b - 7	MG6b - 5
Field F14	MG6b & MG10b -5	MG6b - 5

Hedgerow

5.22 All hedgerows except for H33 were considered to qualify as Habitats of Principal Importance under S41 of the NERC Act (2006) as they supported over 80% native species, though none met the Hedgerow Regulations criteria for 'important' hedgerow. The HEGS grade for each hedge is shown in Annex B: Appendix D; due to the good structure of the hedgerows the majority of hedgerows were of moderate to high value, with only 20.8% of the resource of low or moderate value. Hedgerow H10 was the only hedgerow considered to be of very high value scoring -1.

5.23 The network of hedgerows within the Site has been assessed as being the Regional level importance.

Treelines

5.24 Treelines predominantly formed the southern and western boundaries of the site and were mostly considered to be in moderate condition and provide good connectivity around and across the site in combination with the hedgerow network. TL4 was considered to be in poor condition due to the presence of non-native species, lack of ecological features and adjacent disturbance as a residential boundary. Treeline TL5 was considered to be in good condition and treelines TL1-TL3 in moderate condition but the tree lines present within the Site are assessed as being of no more the local level importance.

Mature Trees

5.25 The presence of mature standards was mostly limited within the site to those associated with the boundary hedgerows and tree lines and have been assessed in detail by an Arboricultural Assessment (AA)17. These predominantly comprised English oak and ash with occasional hazel, goat willow and field maple standards. A stag-headed ash was located along hedgerow H32 and some of the mature trees displayed features such as deadwood and rot holes. A single tree along treeline TL2 (reference T6 in the AA) was identified as a veteran tree which comprised a large English oak and supported decay holes, major stem cavities and bark wood within its crown.

5.26 The veteran tree has been assessed as being of County level importance, but the remaining trees present across the Site are only assessed as being of no more than local level value.

Scrub – Dense/Continuous

5.27 Mixed species dense scrub occurs in the north-eastern fields which have been abandoned alongside areas of bramble dominated scrub. S1 comprised an area of mixed scrub that had encroached from the boundary hedgerows included a mix of blackthorn, hawthorn, elder and bramble and was considered to be in poor condition.

5.28 In addition, crack willow *Salix x fragilis* was recorded around pond P1 along with mature hawthorn and blackthorn and this area (S2) was considered to be in moderate condition. An additional areas of self-set crack willow was recorded in the south-west corner of the site (S3) which was surrounded by an area of bramble, great willowherb and creeping thistle and considered to be in poor condition.

5.29 The scrub habitats within the Site comprise common and widespread species and are of no more than Site level importance.

[17] FPCR (2023) Land West of Birmingham Road, Great Barr. *Arboricultural Assessment.*

Tall Forbs

5.30 Dense areas of tall forbs were recorded at the peripheries of fields F6, F11 and F7 in the north-east of the site and were dominated by common nettle with creeping thistle, cow parsley *Anthriscus sylvestris*, great willowherb, bramble, cleavers, rosebay willowherb *Chamaenerion angustifolium* and false oat-grass.

5.31 The species composition of these habitats comprise common and widespread species which are of no more than Site level value.

Ponds

5.32 Two ponds are located within the site. Pond P1 comprises a linear pond located along the northeastern edge of field F1 which was well established and supported abundant yellow flag iris *Iris pseudacorus*, locally frequent reed mace *Typha latifolia*, locally occasional bittersweet *Solanumdulcamara* and occasional clustered dock *Rumex conglomeratus*. Other marginal species that were rare in occurrence included hard and soft rush, great willowherb, marsh horsetail *Equisetum* and creeping bent *Agrostis stolonifera*. The eastern extent was dry at the time of the survey, with the western extent supporting a shallow amount of water approximately 20cm deep.

5.33 Pond P2 was located within field F11 and comprised a defunct, shallow pond within a depression, surrounded by dense mature scrub and ruderal vegetation which heavily shade the pond. It was dry at the time of the survey with no marginal or aquatic flora noted.

5.34 Pond P1 is likely to meet the criteria to be classified as a BAP and LBAP habitat. Pond P2 does not meet the criteria to be classified as a BAP or LBAP habitat as it dry for prolonged periods and on aquatic or marginal species are present.

Invasive, Non-native Plants

5.35 A single stand of Japanese knotweed *Reynoutria japonica* is present within an area of tall forbs (TN11, Figure 2). There were no signs that the stand has been treated or that it has spread in its extent since the previous survey.

Protected and Notable Species

5.36 The Site is considered to have the potential to support the following species/groups:

- Badgers;
- Bats;
- Breeding birds;
- Great crested newts (GCN) *Triturus cristatus;*
- Reptiles;
- Invertebrate.

Badgers

5.37 No evidence of badger activity has been recorded within the Site over the 2020 or the 2023 survey periods.

Bats – Roost Surveys

Mature Trees

5.38 The ground level bat roost assessment completed by Ecological Solutions. Tree of note included two oaks, one situated to the southeast of the site adjacent to pond P1 and the second located to the east of the site along a defunct hedge line.

5.39 The updated tree roost assessment identified 23 trees (T1-T23, Figure 4) with features suitable to support a bat roost. 16 of these trees were identified as being of low potential to support a bat roost and 5 were identified as providing moderate potential to support a roost. The remaining trees on site were identified as having no/negligible potential to support roosting bats, in accordance with Table 1. A description of the suitable features is provided at Appendix C.

5.40 Of these trees 11 are situated in the proposed area of the county park and will not be affected by the proposal.

Low Potential Trees

5.41 From the completed ground assessments 16 trees were identified as having low potential to support roosting bats (T1, T4, T5, T7, T10, T11, T12, T13, T14, T18, T20, T21, T22, T23). Of these the trees identified as T13, T14, T18, T20, T21, T22 and T23.

Moderate Potential Trees

5.42 From the completed ground assessments five trees were identified as trees with moderate bat roosting potential (T2, T3, T6, T8, T19). Only T19 is located on the boundary of the proposed development site.

Buildings

5.43 Three former agricultural buildings are present in the northern area of the Site. Ecological Solutions did not identify any potential roost site associated with these buildings.

5.44 These buildings are single storey wooden structures with pitched constructed from single skinned concrete fibre board roofs. No underlining or roost voids were present in the buildings. At the time of survey, no evidence of occupation was observed internally or externally within the buildings. From this assessment these buildings were assessed as providing negligible potential to support a roost.

Bats – Activity Surveys

Transect Surveys

5.45 The monthly transect surveys completed by Ecological Solutions did not record any significant use of the Site by foraging and commuting bats. In common with many urban sites the dominant species recorded on all survey occasions was common pipistrelle *Pipistrellus pipistrellus*. Other species recorded included Soprano pipistrelle Pipistrellus pygmaeus and noctule *Nyctalus noctula*. Occasional species recorded using the Site included Leisler *Nyctalus leisleri* and Nathusius' pipistrelle *Pipistrellus nathusii*. The full survey results are presented at Annex A.

5.46 The results of the seasonal activity surveys completed by FPCR did not record any significant evidence of activity across the Site and the dominant species remained as common pipistrelle. The

result of the transect surveys completed in the northern and southern area of the Site are described below.

Transect 1: 30th May 2023 – North (Figure 5)

5.47 A total of 14 bat contacts were recorded during the May 2023 transect, 8 of which were recorded towards the northern boundary of the site between 21:48 and 22:21. The first bat contact recorded was a common pipistrelle recorded at 21:48, 28 minutes after sunset and comprised foraging behaviour. The transect recorded no evidence of a nearby roost, such as regularly used commuting routes or a peak in activity noted at or shortly following sunset. Species recorded included common pipistrelle *Pipistrellus pipistrellus* (12 contacts), soprano pipistrelle *Pipistrellus pygmaeus* (1 contact) and a single recording of Brown long-eared *Plecotus auratus* (1 contact).

Transect 2: 30th May 2023 – South (Figure 6)

5.48 Slightly higher levels of bat activity were recorded during the southern May transect route (20 bat contacts), which were spread across the southeastern half of the site. The initial bat activity detected was a common pipistrelle recorded along the southern edge of H29 at 21:49, 29 minutes after sunset. The activity comprised common pipistrelle (13 contacts) and soprano pipistrelle (7 contacts).

Transect 3: 3rd August 2023 - North (Figure 7)

5.49 Much lower levels of activity were recorded during the northern August transect route with only 9 contacts recorded in total. The first bat contact recorded was a commuting Noctule recorded at 21:18, 21 minutes after sunset. The majority of the bat activity was recorded along the north-western boundary along the edge of the off-site woodland.

Transect 4: 3rd August 2023 - South (Figure 8)

5.50 Slightly higher levels of bat activity were recorded during the southern August transect route (18 bat contacts), of which the majority were recorded in the eastern corner of the site. The initial bat activity detected was a Noctule recorded along the south-eastern edge of H10 at 21:21, 24 minutes after sunset. The activity comprised common pipistrelle (16 contacts), noctule (1 contact) and soprano pipistrelle (1 contact).

Transects 5 & 6: 26 / 27 September 2023 North (Dusk / Dawn Transect) (Figures 9 & 10)

5.51 Limited levels of activity were recorded during the dusk transect and the first bat recorded was a common pipistrelle at 19.35. During this transect common and soprano pipistrelle were the dominant species recorded across the site generally being recorded to the south of H13 / H16. Very little activity was recorded in other areas of the transect. The only other species recorded was a pass from a commuting noctule.

5.52 During the dawn transect very few bats were recorded and the only species recorded were individual registrations from brown long eared, unidentified Myotis species and common pipistrelle. The first bat recorded was a commuting brown long eared bat at 05.15 in the area of dense scrub towards the north of the Site.

Transects 7 & 8: 26 / 27 September 2023 (Dusk / Dawn Transect) (Figures 11 & 12)

5.53 Over dusk transect the recorded activity across the Site was limited and foraging / commuting common pipistrelle were the dominant species recorded. The majority of these registrations were at Point count G (to the south of the site) and Point count J (south of the tree line TL4). The first registration was at 19.35. The only other species recorded during this transect was a single commuting pass from a noctule.

5.54 Similarly low levels of activity were recorded during the dawn transect with occasional passes from common pipistrelle and multiple passes from a foraging noctule to the south of the site. The first bat was recorded at 05.03.

Static Detector Surveys

5.55 Over the period of May – October 2020 Ecological Solutions completed monthly static detectors surveys at the Site deploying two static detectors. The full results of these surveys are present at Annex A.

5.56 Over the survey period the dominant species recorded on each survey occasion and each of the static detectors was common pipistrelle. Other frequently recorded species included soprano pipistrelle and noctule. Occasional recorded species included Nathusius pipistrelle, Leisler, brown long eared unidentified *Myotis* species.

5.57 The following provides a summary of the static detector data recorded over the seasonal surveys completed in 2023, with the tabulated results in Annex B. The static detector locations are shown on Figures 5-8.

Static Location 1: 25th-30th May 2023 (Figure 5 and Annex C)

5.58 The first spring static detector was positioned along hedgerow H20 towards the north-east of the site. A total of 733 registrations were recorded during the five nights, during which common pipistrelle comprised 89% of the activity data (656 registrations). Other less frequently recorded species included noctule (39 registrations), *Pipistrellus* species (14 registrations), soprano pipistrelle (11 registrations), *Nyctalus* species (5 registrations), *Myotis* species (4 registrations) and brown long-eared bat (4 registrations).

5.59 Overall bat activity levels were highest over the first night (25th May), with peak levels of activity occurring between 21:00 and 23:00. No pre-dawn or other peaks in activity were identified, and as such the activity recorded is likely to be foraging behaviour.

Static Location 2: 25th-30th May 2023 (Figure 6 and Annex C)

5.60 The second spring static detector was positioned on the southern end of treeline 2 TL2 towards the southeastern boundary of the site and recorded a total of 895 registrations during the five-night recording period. The overall dataset was dominated by common pipistrelle (705 registrations, 79%), with less frequently recorded noctule (114 registrations), soprano pipistrelle (35 registrations), *Nyctalus* species (18 registrations), *Myotis* species (14 registrations) and brown long-eared bat (9 registrations).

5.61 Overall bat activity levels were highest over the fourth night (29th May), with peak levels of activity occurring between 22:00 and 23:00. No pre-dawn or other peaks in activity were identified, and as such the activity recorded is likely to be foraging behaviour.

Static Location 3: 10th-15th July 2023 (Figure 7 and Annex C)

5.62 The first summer static detector was positioned on the southern end of treeline 2 TL2 towards the southeastern boundary of the site and recorded a total of 468 registrations. The overall data set was dominated by common pipistrelle (391 registrations, 84%), and this species was also the most frequently recorded across each night of the recording period. Other species included noctule (39 registrations), *Nyctalus species* (23 registrations), *Pipistrellus* species (6 registrations), soprano pipistrelle (4 registrations), *Myotis* species (4 registrations) and brown long-eared bat (1 registrations). Most common pipistrelle activity (c.78%) was recorded during the second night along with the peak for most other species, the exception being *Nyctalus* species (peak on the first night) and *Pipistrellus* species (peak on the third night).

5.63 The greatest number of registrations were recorded between 00:00-01:00, and as such not considered indicative of a significant commuting route but is more likely to represent foraging behaviour.

Static Location 4: 10th- 15th July 2023 (Figure 8 and Annex C)

5.64 The second summer static detector was located along hedgerow H20 towards the north-east of the site and recorded a total of 203 registrations. The overall data set was again dominated by common pipistrelle (114 registrations). Other species included noctule (46 registrations), *Nyctalus* species (46 registrations), brown long-eared (8 registrations), *Myotis* species (4 registrations) and soprano pipistrelle (2 registrations).

5.65 Overall bat activity was highest during the second night (11th July). The greatest number of registrations were recorded between 22:00-23:00, and as such not considered indicative of a significant commuting route but is more likely to represent foraging behaviour.

Static Location 5: 22nd- 27 September July 2023 (Figure 9 and Annex C)

5.66 Located to the north of the Site adjacent to H22 and mature scrub a total of 214 registration were recorded. Common pipistrelle was the dominant species (173 registration). Other species record included noctule (12 registrations), identified pipistrelle species (11 registrations) and brown long eared (10 registrations). Less than ten registrations were recorded for unidentified myotis species and unidentified *Nyctalus* species.

5.67 The highest level of recorded activity was on 24 September. No significant peak in activity were recorded during over this survey period but low levels of common pipistrelle activity was recorded throughout the period. This is likely to represent general foraging activity.

Static Location 6: 22nd- 27 September 2023 (Figure 11 and Annex C)

5.68 Located to the south of the site very little activity was recorded during this period with a total of 291 registrations. The dominant species recorded was common pipistrelle with 276 registrations over this period. Other species recorded included brown long eared, soprano pipistrelle, unidentified

pipistrelle species and unidentified myotis species. The number of registrations for these other species was five registrations or less.

5.69 The highest number of registration was recorded on 26 / 27 September with 236 registrations but no registrations from any species were identified over the first three nights despite the detector recording. The peak of common pipistrelle registrations was over the period of 20.00 – 21.00 and a slight peak over the period of 19.00 – 20.00. However, given the overall results for this period this is only considered to represent general foraging activity.

Breeding Birds

5.70 During the 2020 survey period three breeding bird surveys were conducted by Ecological Solutions. Over this period a total of 26 species were observed, 22 of which were identified as possible breeding species. Five red listed species comprising: yellow hammer, starling, house sparrow, song thrush and grasshopper warbler were recorded. An additional four amber listed species including dunnock, reed bunting, black head gull and common gull were identified.

5.71 The survey did not identify significant numbers of any of red or amber listed species or significant number of the bird species not listed of the BTO risk register and overall, the recorded assemblage was not recorded as notable or of significant ecological importance.

5.72 Given these previous survey results an additional three breeding bird surveys were undertaken over the main bird breeding season in 2023. The results of these surveys are discussed below.

5.73 Over the survey completed in 2023, a total of 36 bird species were recorded during the 2023 breeding bird surveys (for complete list see Annex D). Of these, 15 species meet the criteria of at least one of the following pieces of legislation/classifications discussed above: Schedule 1 of the WCA; Section 41 of the NERC Act 2006; and BoCC Red or Amber lists. These species are referred to as ‘notable’ species.

5.74 Of the 36 species recorded as present during the survey, seven were considered confirmed breeders. These included one notable species which was dunnock *Prunella modularis*. The other six confirmed breeders were BoCC Green-listed and therefore of low conservation concern.

5.75 11 species were considered probable breeders which included seven notable species: (mallard *Anas platyrhynchos,* swift *Apus apus*, whitethroat *Curruca communis*, wren *Troglodytes troglodytes*, house sparrow *Passer domesticus*, bullfinch *Pyrrhula pyrrhula* and greenfinch *Chloris chloris*). The other four probable breeding species were all BoCC Green-listed and therefore of low conservation concern.

5.76 The remaining 18 species recorded were considered either possible breeders (11) or non-breeders (7) on the Site.

5.77 Table 10 provides a summary of the notable species recorded during the survey and their respective breeding statuses on site, whilst Figure 13 shows the approximate locations where they were recorded.

Table 10: Notable Breeding Birds Recorded over the 2023 Survey Period.

Species	Conservation Status & Protection	Peak Count / Number of Survey Occasions Recorded	Breeding Status	Recent Status in Birmingham and the Black County
Mallard *Anas platyrhynchos*	Amber List	3 / 3	Probable A,T,H	Common resident and very common winter visitor
Swift *Apus apus*	Red List	1 / 1	Probable D	Common summer resident and passage migrant
Stock Dove *Columba oenas*	Amber List	2 + 6 flyovers / 3	Possible H	Very common resident
Woodpigeon *Columba palumbus*	Amber List	51 + 9 flyovers / 3	Possible S,H	Abundant resident and winter visitor
Black-headed Gull *Chroicocephalus ridibundus*	Amber List	7 flyovers / 2	Non-breeder F	Abundant passage migrant and winter visitor
Herring Gull *Larus argentatus*	Red List NERC S.41	3 flyovers / 3	Non-breeder F	Common winter visitor
Lesser Black-backed Gull *Larus fuscus*	Amber List	22 flyovers / 3	Non-breeder F	Very common passage migrant and common winter visitor
Whitethroat *Curruca communis*	Amber List	4 / 3	Probable T,P,H	Very common to abundant summer resident
Wren *Troglodytes troglodytes*	Amber List	17 / 3	Probable A,S,H	Abundant resident
Starling *Sturnus vulgaris*	Red List NERC S.41	6 flyovers / 3	Non-breeder F	Very common to abundant resident, passage migrant and winter visitor
Song Thrush *Turdus philomelos*	Amber List NERC S.41	5 / 3	Possible S,H	Much declined, though still abundant, resident, passage migrant and winter visitor
House Sparrow *Passer domesticus*	Red List NERC S.41	2 + 2 Colonies / 3	Probable T,H	Abundant to very common, though much declined, resident
Dunnock *Prunella modularis*	Amber List NERC S.41	13 / 3	Confirmed FF,T,P,S,H	Abundant resident
Bullfinch *Pyrrhula pyrrhula*	Amber List NERC S.41	2 / 3	Probable T,H	Fairly common to common resident
Greenfinch *Chloris chloris*	Red List	6 / 3	Probable D,S,H	Fairly common to common resident

Breeding Bird Survey Results Description

5.78 The hedgerows and scrub provided breeding and foraging opportunities for common and widespread generalist species, with notable species including woodpigeon, whitethroat, wren, song thrush, dunnock, starling, bullfinch and greenfinch.

5.79 Dunnock was considered to be a confirmed breeder as it was seen to be carrying food for young.

5.80 Whitethroat, house sparrow and bullfinch were also observed to be holding territories across multiple visits and therefore considered probable breeders. Swift and greenfinch were observed displaying on site and are therefore considered probable breeders. Wren was considered to be a probable breeder due to the observation of individuals alarm calling.

5.81 Stock dove, woodpigeon and song thrush were considered only possible breeders due to the lack of breeding evidence recorded. Other species of low conservation concern utilising these habitats included a range of common and widespread warbler, finch, tit and corvid species.

5.82 The internal parts of the grassland fields provided relatively limited breeding opportunities for birds. Other species of low conservation concern which utilised the fields for foraging included carrion crow *Corvus corone* and magpie *Pica pica*.

5.83 The waterbodies on the site provided suitable habitat for the notable species mallard, teal *Anas crecca* and moorhen *Gallinula chloropus*. Mallard was considered to be a probable breeder due to the holding of territory being observed across multiple visits and an unwillingness to flush being observed.

5.84 Several species were only recorded flying over the Site, including the notable black-headed gull *Chroicocephalus ridibundus*, herring gull *Larus argentatus* and lesser black-backed gull *Larus fuscus*. These species were therefore considered non-breeders.

Great Crested Newts

5.85 In the wider area, two ponds were identified within 500m of the survey boundary from analysis of aerial photos and OS maps.

5.86 The two waterbodies recorded onsite and the two offsite (Figure 14), are described in Table 10 below together with the results of the HSI assessment.

Table 11: Pond Descriptions and HSI Scores

Ref.	Pond Description	HSI Score	Suitability
P1	A medium sized pond (approx. 50m x 3m), surrounded by scattered mature scrub and trees including goat willow *Salix caprea* and English oak *Quercus robur*. Aquatic / marginal vegetation included yellow flag iris *Iris pseudacorus,* reed mace *Typha latifolia* and soft rush *Juncus effusus.* 	0.71	Good 79% predicted presence
P2	An area identified as a pond on maps but was recorded as a dry area located within a depression with no open water at the time of survey. It was partially surrounded by scrub including crack willow *Salix x fragilis*. No aquatic / marginal vegetation was recorded, likely due to the dense shading created by the surrounding scrub. Previous survey work completed by Ecological Solutions found the waterbody was regularly dry throughout the survey period and concluded this waterbody did not provide suitable breeding conditions for amphibians. 	0.56	Below Average 20% predicted presence

Ref.	Pond Description	HSI Score	Suitability
P3	A small sized pond (approx. 3m x 4m), surrounded by sparse grassland. Decorative marginal vegetation, constrained in planters were also present around the pond. 	0.58	Below Average 20% predicted presence
P4	A medium sized pond (approx. 25m x 8m), surrounded by mature woodland and reeds. 	0.76	Good 79% predicted presence

5.87 The HSI scores for each water body are detailed in Annex E. The onsite pond (P1) was identified as being of 'Good' suitability for breeding GCN. The other defunct pond (P2) was of 'Below Average' suitability with predicted presence of 79% or 20% respectively, it is noteworthy that Ecological Solutions did not record suitable amount of stand water in P2 to support GCN over the breeding season in 2020.

5.88 Given the results of the survey result pond P2 has been recorded as being unsuitable to support a breeding population of GCN.

<u>eDNA Surveys 2023</u>

5.89 eDNA sampling was carried out on ponds P1, P3 and P4. P2 was dry at the time of the eDNA surveys.

5.90 Samples from ponds P1, P3 and P4 were identified as negative for GCN eDNA. Results are provided at Annex F.

Reptiles

5.91 The reptile surveys completed by Ecological Solution in 2020 did not record the presence of reptiles within the Site. The updated surveys completed by FPCR also did not record any reptiles on the refuges provided (Figure 15).

Invertebrates

5.92 The habitats present within the Site are likely to support an assemblage of common invertebrate species but given the limited habitat diversity and lack of overall habitat mosaic the Site is unlikely to support a rare or notable invertebrate assemblage.

Likely Future Baseline Conditions

5.93 Habitats within the Site are not currently or historically been managed for the purpose of nature conservation. Where proposals do not proceed, and the Site is left, it is considered that habitats on Site network of hedgerows within the Site would remain in the same condition but as has been demonstrated over the extended survey period the grassland habitats would continue to decline in quality. As highlighted in the Birmingham & Black County Local Site Assessment Report without management the extent of scrub habitats is likely to encroach into the grassland habitats resulting in further degradation of the grassland and further loss of grassland habitats.

5.94 Without significant changes in habitats, the Site will likely continue to support low numbers of common/widespread bats, breeding birds, reptiles and great crested newts.

5.95 Badgers are highly mobile and given the extensive area the Site cover it is possible occupation could occur. This would follow national trend in urban areas. However, given the lack of evidence identified in 2020 and 2023 it is unlikely that a significant population would occupy the Site, unless off-site factors put pressure on local clans to seek new territories.

5.96 Given the location in the urban environment it is highly likely that hedgehogs are present and will continue to be present in an absence of development.

Summary of Important Ecological Features

5.97 The suite of surveys have demonstrated that the proposals have the potential to effect a range of important ecological features. These are summarised in Table 11 and assigned a geographic context based on survey results, relevant legislation and policy.

Table 12: Important Ecological Features On-Site and within Local Area

Important Ecological Feature	Relevant Legislation/ Policy	Geographic Scale	Rationale
Cannock Extension Canal SAC / SSSI	CHSR, NPPF	International	Situated 8.8km north of the Site. The SAC is designated for the large population of floating water plantain *Lurium natans* that it supports, in addition to the wide diversity of aquatic flora and rich dragonfly flora.

Important Ecological Feature	Relevant Legislation/ Policy	Geographic Scale	Rationale
Fen Pools SAC	CHSR, NPPF	International	Situated approximately 13km to the southwest of the Site. This site is designated for a population of great crested newts.
Merrion Wood (LNR)	NPPF	County	Located approximately 25m to the north of the Site. LNR are regional designations for sites providing a range of recreational use and areas of nature conservation interest. These sites are partial designated to provide considerable opportunities for introducing large numbers of people to sustainable enjoyment of the countryside.
Hollywood (LNR) / Gorse Farm Wood (LNR) / Forge Mill Lake (LNR)	NPPF	County	These sites are located at distances ranging from 1.3km to 1.5km from the Site. These regional designations are for sites providing a range of recreational use and areas of nature conservation interest. These sites are partial designated to provide considerable opportunities for introducing large numbers of people to sustainable enjoyment of the countryside.
Peakhouse Farm (SINC)	NPPF, Black County Core Strategy	Regional	Located across the site, the designation is for extensive areas of grassland and the hedgerow network. Designation as SINC does not provide statutory protection but does provide a degree of policy protection.
Hill Farm Bridge Fields SINC & SLINC	NPPF, Black County Core Strategy	County	Located 10m to the south west of the Site. Small grassland fields which support calcareous grassland in areas with good quality hedgerows and scattered scrub.
Wilderness Woods SINC	NPPF, Black County Core Strategy	Regional	Located 20m to the south west of the site. Small block of ancient semi-natural woodland with areas of wet woodland and a pond.
Grassland	NPPF, Black County Core Strategy	Regional	An extensive area of open grassland in the urban environment. The grassland field compartment are not particular species rich and the grassland type is a common and widespread habitat on a regional basis. The grassland type does not represent an irreplaceable habitat and would not normal be recorded as any more than local level importance. However, as the grassland is a component part of the overall SINC for the purpose of this assessment the level of ecological importance has been elevated.
Hedgerows	NPPF, Hedgerow Regulation, Black County Core Strategy	Regional	A strong network of hedgerow present throughout the site. Only two of the hedgerows were identified as being 'important' under the Hedgerow Regulations.
Veteran Tree	NPPF, Black County Core Strategy	County	A single veteran tree was identified over the survey period.

Important Ecological Feature	Relevant Legislation/ Policy	Geographic Scale	Rationale
Mature Tree & Tree Lines	NPPF	Local	The mature trees and the tree lines add some structural diversity to the site but are not in their own right considered to be ecological important features
Bats	CHSR, WCA Sched 5	Local	Low levels of common bat species activity on Site including common and soprano pipistrelle, brown long eared, *Myotis spp,* noctule bat, and. Commuting and foraging opportunities including across the hedgerow, grassland, scrub and waterbodies.
Birds	WCA	Local	On-site habitats provided suitable habitat for an assemblage of common and widespread urban edge/generalist species.
Invertebrates	CHSR, NERC S41, WCA	Local	Due to the habitats present widespread and common species likely to occur on-site.
Hedgehogs	NERC S41	Local	No evidence found on site but known in local area.

Where NPPF = National Planning Policy Framework 2019; NERC S.41 = Natural Environment and Rural Communities Act 2006 Section 41; CHSR = Conservation of Habitats and Species Regulations 2017; WCA = Wildlife and Countryside Act 1981.

6.0 ECOLOGICAL EVALUATION & IMPACT ASSESSMENT

Statutory Designations

6.1 Two international sites Cannock Extension Canal SAC / SSSI and Fen Pools SAC are situated within 15km of the Site, but both are isolated from the development. Given the geographical separation and isolation of these designations from the Site, the proposals will not result in any 'likely significant effects' or affect the integrity of the conversation value of the designated sites.

6.2 Four Local Nature Reserves (LNR) are present in the wider environment surround the Site. Merrion Wood (LNR) is north of the Birmingham Road and is approximately 25m north of the Site. Development of the site will not result in direct effects to the conservation status of this Site. Over the operation phase the development may result in some marginal increase in recreation pressure. However, LNR are designed to provide access to nature within the urban environment designed to provide footpath and other suitable recreational resource. Consequently, given the open space provided within the Site and the resources provided within the LNR development of the Site is not expected to result in long term effects to the conservation value of the Site.

6.3 The remaining three LNR are situated between 1.3 – 1.5Km from the Site. Given the geographic separation development of the Site will not affect the conservation status of these designated site. Whilst the proposals may lead some a marginal increase in recreational pressure, LNR are designed be used as a recreational resource and any marginal increase in use is unlikely to affect the conservation status of these designated sites.

SINC Assessment

6.4 The whole of the site falls within the Peakhouse Farm SINC. The initial SLINC designation was primarily for the network of hedgerows running across and around the site, as well as small field compartments in the north-east, pond P2 and surrounding habitat in the south-eastern corner. The upgraded SINC designation incorporated all habitats within the site boundary and network of grassland field compartments. Whilst all habitats are included within the designation, the grassland and the hedgerow network are considered to be those forming the reason for designation of the site.

6.5 The updated site assessment[17] identified the majority of the grassland field compartments (Fields F2, F4-F9 & F12-F13) as being "semi-improved neutral grassland – species poor" with fields F3, F14, F6 & F11 as comprising more diverse "semi-improved grassland".

6.6 The survey work undertaken by FPCR has identified that overall, the grassland within the site has declined in quality since the time of the SINC assessment report in 2018 and further detailed botanical survey in 2020 with indicator species for neutral grassland and lowland meadow reducing in number and overall forb abundance has decreased across the field compartments. In particular, fields F6 and F11 have declined in value having been colonised by areas of dense bramble scrub and the remnant grassland becoming rank with large stands of ruderal herbs. None of the grassland habitats present across the Site have been assessed as irreplaceable habitats and all of the grassland present within the site has been recorded as been common and spread habitats which can be easily recreated to provide grassland habitats of significant ecological value.

6.7 The historical aerial photography of the site[18] has shown that during the period 2011 to 2018, fields F7 and F8 were horse-grazed and divided into grazing compartments. It appeared that these fields have not been grazed for approximately three years and if left unmanaged it is considered that these fields will likely be colonised by encroaching bramble scrub and ruderal species from the adjacent fields F6 and F11.

6.8 Aerial imagery also indicate that fields F4, F5, F9 and F12 have been subject to agricultural hay cutting since at least 1999 but the site management has not been covered by any sensitive agricultural management schemes such as 'higher level stewardship' (HLS). The more uniform appearance of these fields suggest that it is more likely that these are less diverse with less natural variability in comparison to field F3 which has a mottled appearance on the aerial photos. Furthermore, most of the grassland identified as MG6b sub-community which is a common and widespread grassland type, along with MG1a.

6.9 The landowner confirmed that the pasture land in the north and east of the site was grazed with horses for 32 years and that the grassland had been mown for the past 30 years. The grassland used for hay / silage had been sprayed and fertilised over this period and more recently, the grassland was directly drilled with grass seed. This is reflected in the grass-dominated swards across the site.

6.10 The hedgerow network within the Site is a significant feature of the designation and the majority of the hedgerows are in good condition. Without continued management the nature and structure of the hedgerows will decline.

6.11 From the extensive ecological survey work complete at the Site, it is clear that the quality of the grassland is declining through a lack of appropriate management. Without intervention the reason for designation of the grassland will not apply. This significant harm should be considered when determining this application.

6.12 All of the survey work demonstrates that the network of hedgerows is of good quality and should where possible be retained within the context of the development.

Black Country Nature Improvement Area

6.13 The site has also been identified as lying within a core ecological area within the Black Country Nature Improvement Area ecological network mapping. The hedgerows are considered to be more of a valuable resource within the local ecological network as opposed to the grassland. The scheme has been carefully designed to protect the intrinsic and functional value of the site within the network and ensure that the site will continue to provide its valuable position in connecting Sandwell Valley with the wider countryside. The western and central parts of the site will provide an enhanced green corridor within which targeted ecological management will be secured in the long-term.

6.14 Overall, it is considered that the proposed scheme will not result in harm to the SINC designation and will provide the opportunity to secure a significant positive impact.

[18] Google Earth http://www.earth.google.com [Accessed on 29/08/23]

Other Non-Statutory Designations

6.15 An additional four SINCs and seven SLINCS are located within a 1km radius of the application site. There will be no loss of habitat from these non-statutory sites as a result of the proposals.

6.16 Of these, the closest comprise Hill Farm Bridge Fields SINC & SLINC located approximately 10m south-west of the site boundary and Hill Farm Bridge Fields SINC & SLINC is located on the opposite side of Wilderness Lane which borders the site to the east and is not publicly accessible. As such, an increase in recreational disturbance is not anticipated and appropriate signage and provision of information of the public footpaths in the local area would minimise such impacts (to result in a negligible effect).

6.17 Wilderness Woods SINC located approximately 20m to the south-east. Hedgerow H11 borders SINC and provides connectivity, however this hedgerow is to be retained and there are existing public rights of way that run along the edge of the SINC. Thus, as above, although it is reasonable to predict that residents from the proposed development may use the SINCs it is considered that the proposed development will not have significant indirect impacts upon the conservation value of the designations, given its existing public use, provision of public open space within the scheme and network of surrounding public footpaths.

6.18 Given the distance of the remaining sites from the application site, and the lack of habitat connectivity, no impacts to these sites are anticipated due to land take or degradation of, for example air quality or the water table. Given the abundance of public footpaths and bridles ways in the local area, no impacts are anticipated on these sites from recreational impacts following development.

6.19 On this basis, potential impacts to additional non-statutory designated sites of nature conservation interest are therefore not considered to be a statutory constraint to the proposed development.

Habitats

6.20 The site was dominated by species-poor grassland and the losses of the areas of the poorest quality will be compensated for though the enhancement of the retained areas of grassland as detailed above.

6.21 The small areas of tall forbs and bramble dominated scrub and old stables were of negligible value to nature conservation due to the restricted botanical and structural diversity. The areas of mixed scrub offered more diversity but still do not pose a constraint to the development. New areas of scrub will be incorporated into the landscape design to provide compensation for minor losses.

6.22 The hedgerow network, treelines and associated mature trees are considered to be of high intrinsic value within the site, as established habitats for epiphytes, invertebrates and birds as well as additional structural habitat corridors for fauna in the context of the wider landscape. The current Illustrative Masterplan has sought to retain the vast majority of the network, with only minor losses to facilitate access (3.5% of the existing resource in terms of length). Suitable buffers have been incorporated around the hedgerows which lie adjacent to the development parcels and all trees and hedgerows to be retained will be suitably protected during construction activities i.e. working methods should adhere to standard best practice guidance. This would include BS5837 Trees in Relation to Design, Demolition and Construction – Recommendations: 2012 for trees and hedges.

6.23 The minor losses will be compensated for by the planting of new species-rich hedgerows and enhanced and long-term management of retained hedgerows as detailed above.

6.24 Both ponds are to be retained within the scheme and there are opportunities to ensure the long-term biodiversity value of these ecological features. This will be provided through rotational management of the marginal vegetation within pond P1 and reinstatement of the water regime and introduction of marginal and aquatic vegetation within pond P2. The provision of new ponds as part of the sustainable urban drainage scheme will expand the existing resource and will be sensitively designed to maximise their biodiversity value and provide habitat for a range of fauna and flora. Suitable features will include shallow sloping bank and tussocky or longer sward grassland around the margins and only native aquatic plants will be used in the planting scheme.

6.25 Preference will be given within the proposed planting scheme throughout the entire site, including existing hedgerow and boundary features, to the use of locally native woody species, with an emphasis on species bearing nectar, berries, fruit and nuts, as these enhance the foraging opportunities for local wild fauna including birds and invertebrates. Suitable small tree species for inclusion in hedgerow and garden planting schemes include field maple, silver birch *Betula pendula*, wild cherry, holly, crab apple *Malus sylvestris* and rowan *Sorbus acuparia*. Other shrub species suitable for inclusion within the soft landscaping design include hawthorn, hazel, blackthorn, dog-rose and wild privet *Ligustrum vulgare*.

Fauna

6.26 From the survey completed surveys the presence of badger, reptiles and great crested newts have not been identified as statutory constraint to the proposals.

6.27 A number of mature trees present across the Site were identified as providing suitable features to be used as a bat roost site. The mature trees with moderate roost potential are situated within the green infrastructure adjacent to the development or within the wider site which is subject to habitat enhancement and long-term management. Consequent, it is expected that the mature trees with moderate roost potential will not be affected by the proposals.

6.28 Whilst trees with low roost potential have been identified in the green infrastructure immediately surrounding the proposed development, these features are retained and loss of such features is not expected. In the event loss of such low potential trees was required at the stage of a detailed planning application, these trees would be subject to further climb and inspection techniques prior to removal and / or under the requirement of the Natural England development licence, if required.

6.29 The buildings within the Site did not provide situated roost site for bat and the presence of a bat roost in these building has not been identified as a statutory constraint to the proposals.

6.30 The bat activity and static detector surveys completed by Ecological Solutions and FPCR did not identify any significant evidence of usage by bats. No Annex II species were recorded, and the recorded assemblage was dominated by common and widespread species.

6.31 Habitat within the Site do clearly provide a foraging and commuting resource for the local bat population, but the Site does not provide a significant resource for the local population. The minor loss of grassland habitats in the eastern area of the Site will be mitigated through the provision of grassland enhancements, the creation of new hedgerows and diversification of habitats in the central and western areas of the Site. Additional mitigation provided within the scheme including the provision of a low-level lighting scheme avoid light spill onto the areas of green infrastructure surrounding the development will further avoid and mitigate any potential effects of the proposals.

6.32 The habitats within the Site supported an assemblage of common and widespread bird species in small to moderate numbers typical of the habitats present and the size of the Site. Therefore, the site was assessed as being of no more than Local level importance for its overall breeding bird assemblage.

6.33 The breeding bird species recorded utilising the habitats within Site were considered as being of only Site importance since they were either recorded in smaller numbers, noted in unsuitable breeding habitats and/or are considered common and widespread breeding species nationally and/or locally.

6.34 To avoid disturbance to breeding birds, ground clearance works and vegetation will be undertaken outside the bird-breeding season (March to September, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. If active nests are found, vegetation will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided prior to undertaking the clearance. This would be a statutory requirement due to the protection of all nesting birds and their nests under WCA. A suitably qualified ecologist would supervise this. These measures will ensure the impact of disturbance during construction to any nesting birds is reduced to negligible.

6.35 The proposals to enhance the diversity of the grassland, maintain the existing hedgerow network and create additional hedgerow through the Site will provide adequate mitigation for loss of the habitats situated to the east of the Site. To maximise the value of additional habitats provided in the green infrastructure immediately surrounding the built development it is recommended native species are used, preferably including fruit and nut bearing species to provide an optimal foraging resource.

6.36 Planting the attenuation features with an appropriate native marginal vegetation mix that includes common reed Phragmites australis will provide suitable nesting opportunities for species not recorded on-site, such as reed bunting Emberiza schoeniculus and sedge warbler Acrocephalus schoenobaenus. Non-native wetland plants should be avoided as many are invasive.

6.37 Additional enhancements that could be integrated with the on-going management of the Site include the erection of a mixture of nest box types. The following provides details of suitable nest box types to be erected at suitable locations:

- A mixture of small hole (25 to 32mm diameter) boxes placed on suitable trees will provide nesting opportunities for species such as blue tit *Cyanistes caeruleus* and great tit *Parus major*. These boxes generally have a high uptake rate;
- Small open fronted nest boxes placed on suitable trees especially those which support a climber such as ivy which provides a degree of concealment. These boxes typically attract species such as robin *Erithacus rubecula* and blackbird *Turdus merula*;
- Larger wood nest boxes with large holes (45-50 mm diameter) placed within the built environment and on suitable trees will provide nesting for starling. These boxes will also provide suitable nesting for great spotted woodpecker *Dendrocopos major* when placed on large mature trees;
- The inclusion within the built environment of species-specific nest boxes for house sparrow, song thrush and swift will encourage these urban species to breed on Site, which have all undergone significant local and national declines.

Assessment of Likely Significant Effects on Important Ecological Features

6.38 The status of the important ecological features (IEFs) identified on site have been reviewed against the proposals and intrinsic mitigation to determine whether there are any impact pathways and whether any of these will lead to a likely significant effect, these are assessed in *Table 12*. The requirement for additional mitigation measures above the intrinsic mitigation has been considered for each of the IEFs where they can reduce the scale of negative effects or encourage a positive effect.

Table 13: Assessment of Effects on Important Ecological Features

IEF: Cannock Extension Canal SAC and Fen Pools SAC	
Assessment of Impacts	The construction phase of development is unlikely to have a direct impact on the Cannock Extension Canal SAC or the Fen Pool SAC given the intervening distances from Site.
Predicted Effect	**Negligible**
Mitigation	None
Compensation	None
Enhancement	None
Residual Effects	**Negligible**
IEF: Peakhouse Farm SINC	
Assessment of Impacts	The overall Site boundary encompasses 27ha which forms the Peakhouse Farm SINC. The primary reasons for the SINC designation is the extensive hedgerow network and the grassland. Surveys in 2020 and 2023 within the Site confirm the quality of the grassland is reducing through lack of management but the network of hedgerows have been recorded as being of ecological importance. The proposals will result in the loss of 6.28ha of grassland to facilitate construction of the proposed development with assisted infrastructure. The remaining extent of grassland is maintained within the proposals. The network of hedgerows has been maintained with only minor removal to accommodate access.
Predicted Effect	**Minor adverse short term at a Regional level**
Mitigation	The retained grassland will be put into sensitive long-term management to increase and maintain the structural diversity of the grassland restoring the quality of the grassland. The balancing facilities will be designed to complement the diverse grassland habitats provide area of wetland with marginal planting. The proposals will provide lengths of new hedgerow along the former historic field patterns and put into good long-term management those retained within the proposals. To avoid potential effect to root protection areas appropriate root protection area will be applied.
Compensation	None
Enhancements	All of the retained, enhanced and created habitats will be subject to long term habitat management in accordance with a management plan. This provides long term security to management of the habitats within the site.
Residual Effects	**Negligible at a Regional level**
IEF: Hill Farm Bridge Fields SINC & SLINC	
Assessment of Impacts	Located 10m to the southwest of the Site. Small grassland fields which support calcareous grassland in areas with good quality hedgerows and scattered scrub. Development of the Site will not result in direct effects to the conservation value of the Site.

	There are no formal public way of way through the designated site, therefore over the operational period increased recreational pressure on the site is not expected.
Predicted Effect	**Negligible**
Mitigation	Not require but the additional access and habitat enhancements provide across the Site will discourage any unauthorised recreational use. .
Compensation	None
Enhancement	None
Residual Effects	**Negligible**
IEF: Wilderness Woods SINC	
Assessment of Impacts	Located 20m to the south west of the site. Small block of ancient semi-natural woodland with areas of wet woodland and a pond. Development of the Site will not result in direct effects to the conservation value of this site. An existing public right of way runs through the designated site and the proposals may result in some increase in recreational pressure e or use of the designated site.
Predicted Effect	**Minor adverse long term at a Regional Level**
Mitigation	The provide of significant area of accessible open space within the Site with footpaths.
Compensation	None
Enhancement	None
Residual Effects	**Long-term Negligible at a Regional Level**
IEF: Mature trees	
Assessment of Impacts	The existing mature trees will be retained. The design of the Site will include sufficient buffers around these trees for root protection areas and they will not be included within garden boundaries. During works, all mature trees will be protected through the implementation of appropriate measures including RPA and protective fencing in accordance with BS 5837 (2012) Trees in Relation to Design, Demolition and Construction and as indicated by the Arboricultural Impact Assessment. Indirect impacts during construction, such as pollution, and increased light levels post-development have the potential to negatively affect the health of the trees and their function as a habitat for wildlife.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	Measures to prevent pollution during construction should be outlined in a Construction Environmental Management Plan (CEMP), including protective fencing.
Compensation	None required
Enhancement	Improvement of the woodland to Good condition; methods to achieve this could include measures such as thinning the canopy, removing invasive species, and removing litter from the woodland. This will be subject to long-term habitat management in accordance with a management plan.
Residual Effects	**Mid- to Long-term Negligible to Minor Positive Effect at a Local Scale**
IEF: Grassland	
Assessment of Impacts	The grassland across the site was the main habitat across the Site which was found to be predominantly species-poor and grass dominated, with some areas of higher botanical diversity within retained field compartments F1-F4. Overall, the unmanaged neutral grassland resource that identified mostly as MG6b and MG1 grassland communities, represent a widespread habitat type that was not considered to represent a HPI. No rare or notable species were recorded within any of the field compartments. The grassland within fields F6, F7, F8, F10, F11, F12 and F14, which comprised the poorest in quality, is to be lost to facilitate the development parcels, with some small

	areas of loss and disturbance within field F5 to facilitate the LEAP and attenuation basins.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	Approximately 15ha of grassland will be retained and enhanced to minimise the impact of the loss of habitat on protected species including reptiles and hedgehog. These field compartments will be protected during construction by measures which should be outlined in a Construction Environmental Management Plan (CEMP), including protective fencing. Any grassland temporarily during the creation of the attenuation features will be restored through new species-rich grassland creation such as through the use of green hay from other areas of the site and / or re-seeding with a species-rich meadow mix.
Compensation	The new areas of habitat creation and enhancement of retained habitats will result in a net gain of approximately 37.83 habitat units on Site, including meeting all trading rules requirements within the assessment (see Annex G for full details).
Enhancement	Approximately 15ha of grassland within the west and south of the Site will be retained and enhanced to Good condition through over-seeding with a species-rich meadow mix with additional yellow-rattle, harrowing of the soil and rotational cutting to ensure a varied sward height (see Annex G for more details).
Residual Effects	**Short-term Minor Adverse Effect at a Local Scale** **Mid- to Long-term Negligible to Major Positive Effect at a Local Scale**
IEF: Hedgerows (H1-H33) and Treelines (TL1-TL5)	
Assessment of Impacts	Proposals retain all of the boundary hedgerows and treelines, except for minor losses of H22, H29, H30, H31, TL1 and TL4 to facilitate the access. The retained hedgerows H4, H19, H21, H26, H23, H24, H25, H28, H29, H32, H31, H33 and retained sections of treeline TL4 and TL3 will be in close proximity to construction works and are susceptible to potential damage either through direct accidental above ground damage, or through damage to roots through compaction. Suitable compensation through new hedgerow planting will be undertaken. No likely significant effect is anticipated on this habitat type, due to the limited loss and additional planting proposed.
Predicted Effect	**Short-term Minor Adverse Effect at a Local Scale**
Mitigation	In order to maintain the integrity of the retained hedgerows and avoid their degradation through individual residential management (i.e. removal of sections, excessive cutting by homeowners), where possible existing hedgerows will not be incorporated into gardens and will instead be managed as part of the site-wide green infrastructure.
Compensation	To compensate for the mor losses of hedgerows H22, H29, H30, H31 and treelines TL1 and TL4, native hedgerow planting will take place to restore the historical hedgerow field boundaries that have been previously removed from the Site. This will be in excess to that loss, and they will use a mix of native species to create species-rich hedgerow features.
Enhancement	All retained hedgerows will be brough under suitable long-term management to enhance their biodiversity value and generate additional hedgerow units within the Biodiversity Net Gain assessment.
Residual Effects	**Short-term Minor Adverse Effect at a Local Scale** **Mid- to Long-term Negligible to Major Positive Effect at a Local Scale**
IEF: Bats	
Assessment of Impacts	The Site offers some suitability for commuting, foraging and roosting bats, around the woodland, scrub, grassland and waterbodies. Surveys conducted to date have identified a small number of common bat species utilising the Site. No bat roosts have been identified; but a small number of mature trees have been identified as provide low and moderate potential to support a bat roost. These trees will be retained and suitably protected throughout the proposals. Proposals will increase light levels on Site through the introduction of building and street lighting, which would reduce the suitability of the retained tree lines, boundary and hedgerow.

	Habitats to be retained and created included the extensive hedgerow network, the grassland in the central and western part of the site, ponds, and SuDS, which will provide suitable foraging habitat for bats, and will improve commuting routes for bats around the east boundary of the Site. The habitats used by bats onsite are widely available in the surrounding area. Therefore, the reduction in suitability of the on-site habitats due to lighting is not considered likely to cause a significant effect given the relatively low number of bats recorded.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	The lighting and layout of the development will be designed to minimise light-spill on nearby habitats and a sensitive lighting system will be installed. This will include the retention and enhancement of habitats central and to the west of the site, the maintenance of dark corridors along retained, and the creation of new habitats suitable for foraging and commuting bats.
Compensation	None required
Enhancement	The creation of new hedgerow links. Woodcrete bat boxes (Schwegler or similar design) will be installed on retained mature trees and on new dwellings throughout the Site (where possible) to increase roosting opportunities.
Residual Effects	**Short-term Adverse at a Local Scale** **Mid- to Long-term Minor Positive Effect at a Local Scale**
IEF: Birds	
Assessment of Impacts	The Site is considered likely to support an assemblage of common and widespread species that are able to adapt to residential envrions and as such, while there may be changes in the overall bird assemblage utilising the Site with more opportunities for urban species such as starling, swallow and house sparrow, this is not anticipated to be a significant effect. Residential development usually leads to an increase in the local cat population and therefore an increased risk of predation.
Predicted Effect	**Minor Adverse at a Site Scale**
Mitigation	Vegetation removal will be avoided during breeding bird season or will be carried out immediately following a nesting bird check by a suitably qualified ecologist (SQE). New tree and shrub planting will include thorny species to provide some protection against cats. Where possible clearance and construction works should be carried out outside of the bird breeding season.
Compensation	None
Enhancement	The inclusion of green infrastructure planting and the maturation of gardens will lead to additional opportunities for a range of species. Green infrastructure in the east of the Site will include scrub, meadow grassland, ponds, trees, and woodland which will provide suitable habitat for nesting birds. The management of existing grassland and hedgerows will also ensure an optimal resource is retained for the long term. A mixture of nest boxes, such as the 1B Schwegler nest box or similar woodcrete design will increase nesting opportunities. Nest boxes specifically designed for urban species such as house sparrow, house martin and starling will also be provided. These also provide protection against predators.
Residual Effects	**Negligible at a Site Scale**
IEF: Hedgehog	
Assessment of Impacts	No evidence was found on Site; however, they are known in the local area. Proposals will lead to the loss of large areas of grassland, and some scrub, which at the time of survey was felled to ground level. There will be an increased risk of road fatalities with newly created roads and increased local traffic; however, this is not expected to be significant given the low-density and slow speeds of traffic anticipated. There is also an increased risk of hedgehogs becoming trapped within newly constructed gardens and a reduction in commuting ability.

	The 10m buffer to be retained along the north edge of the existing woodland, and around the west and north of the Site, connecting the woodland to the GI to the east will provide a commuting route around the perimeter of the Site for hedgehogs.
Predicted Effect	**Minor Adverse at a Local Scale**
Mitigation	All newly created garden fences and boundary treatments should feature a 'hedgehog highway' formed by a 13cm x 13cm hole in strategic locations to allow this species to move through the Site and into the surrounding area. Hedgehog highways should be constructed so as to direct hedgehogs towards the perimeter of the Site, discouraging them from crossing newly constructed roads and encouraging them towards suitable habitats.
Compensation	None required
Enhancement	None
Residual Effects	**Negligible**

Biodiversity Net Gain and Habitat Enhancements

6.39 The proposed development has the potential to result in a biodiversity net-gain in terms of habitats and hedgerows. The enhancement of retained grassland, enhancement of the retained hedgerow network and planting of new hedgerows to restore historic boundaries and the creation of new ponds and areas of scrub will deliver approximately 37.07 habitat units (+18.27%) and 4.85 hedgerow units (+10.35%).

7.0 POLICY ASSESSMENT

Statutory Designated Sites

7.1 The proposals will not result in negative effects to any of the statutory designated site within the zone of influence surrounding the Site. Consequently, the proposals are in accordance with all national, local and regional policies relating to statutory designated sites.

Non-statutory Designated Sites

7.2 The non-statutory value of the SINCs means they have no legal protection resulting from their designation. Their protection through legislation is limited, with the Environmental Impact Assessment (Agriculture) (England) Regulations 2006[19] and Forestry Act 1967[20] providing a degree of protection in some situations. The site currently lies within private ownership and therefore there is no legal obligation on owners to manage their LWS in any specific way and the site management has never being covered by any sensitive agricultural management schemes; consequently, sympathetic management is entirely reliant on the goodwill of the owner or their manager.

7.3 The importance of SINCs is addressed within the National Planning Policy Framework (NPPF) which includes locally designated sites within the hierarchy of designated sites that it considers should be safeguarded through the planning system, including Local Authority Local Plans. They are therefore a material consideration within the planning process. This is reflected in Policy ENV1

[19] The Environmental Impact Assessment (Agriculture) (England) Regulations 2006. London: HMSO. [Online] Available from: https://www.legislation.gov.uk/uksi/2006/2362/made?msclkid=6e8e7bc9ac0c11ec941e53147bd6e353 [Accessed 29/08/2023]

[20] Forestry Act 1967. London: HMSO. [Online]. Available at: https://www.legislation.gov.uk/ukpga/1967/10/contents?msclkid=4781c795ac4011ec837afa845281cbcd [Accessed 29/08/2023]

– Nature Conservation within the Black County Core Strategy (2011)[21]. Locally designated sites are not afforded any statutory protection.

7.4 The status of the national network of LWS (including SINCs) has been regularly monitored and reported by the Wildlife Trusts, with the most recent report published in 2018[i22]. This series of reports have highlighted how insufficient funding to maintain LWS systems, inappropriate (including lack of) management, and direct and indirect impacts from development are causing many sites to become degraded or lost.

7.5 The principal effects to non-statutory designated sites are those associated to the habitats listed on the Peakhouse Farm SINC. Whilst other non-statutory site are present on land surrounding the Site significant effects to the conservation value of these additional sites is not expected. Consequently, the following assesses the policy implications of the development proposals on the Peakhouse Farm SINC.

7.6 Overall, it is reasonable to assume that without management the diversity of the grassland swards will be reduced which will significantly affect the conservation status of the SINC in the medium to long-term. With no legal obligation to the owner to manage this designated site in any particular way, limited or no management having taken place in recent times, it is inevitable that succession of the swards to lower value communities and encroachment of scrub and ruderal herbs will continue.

7.7 Policy ENV1 of the Adopted Core Strategy provide a degree of policy protection for locally designated site both SINC and SLINC. The protection requires that important habitat is protected from proposals which could result in harmful effects.

7.8 The completed survey work has demonstrated that the quality of the grassland across the site is declining as a result of lack of management and from an ecological perspective this lack of management will continue to result in the declining quality of the grassland. The completed ecological survey work has also demonstrated the proposals are affecting the lower quality grassland present within the Site. From this perspective the retention and enhancement of over 15ha of grassland within the Site will avoid the continued decline of the grassland and therefore avoid the negative effects resulting from lack of management and natural succession.

7.9 Whilst the development will result in the loss of a small proportion of the grassland habitat, the proposals will provide long term security for the retained grassland and given the declining quality of the site this is the only realistic prospect of maintaining the ecological value of the site..

7.10 The mitigation hierarchy at Paragraph 180 of the NPPF (September 2023) recommends that '*significant harm to biodiversity*' should be avoided. In our opinion this recommendation does require the consideration all potentially significant effects to the habitats and species affected, not only by development proposals but ongoing management strategies. For the habitat present in this site it is clear that the lack of management will result in significant harm to the resource and will result in the loss of the notable grassland the designation is intending to protect. This in our opinion

[21] Sandwell Metropolitian Borough Council (2011) Draft Black Country Plan. July 2021 [Online]. Available from: https://blackcountryplan.dudley.gov.uk/t1/p2/ [Accessed 29/08/23]

[22] The Wildlife Trusts. (2018). *The status of England's Local Wildlife Sites 2018 – Report of results.* Newark: The Wildlife Trusts. [Online]. Available from: https://www.wildlifetrusts.org/sites/default/files/2019-01/181122%20RSWT%20Wildlife%20Sites%20Report%202018%20MB%20web_0.pdf [Accessed 29/08/2023]

will itself result in significant harm without development and as such this should be considered in the decision-making process.

7.11 Development of the site would secure the long-term favourable management of these grasslands, with a view to decreasing the frequency of coarse grass species and reducing the area of scrub encroachment. It is considered that these objectives could be achieved through a combination of scrub removal, re-seeding of yellow rattle and rotational cutting of the grasslands. The site has been sensitively designed to avoid the grassland fields of the highest botanical interest, locating it within the northern and eastern fields which have shown the most decline in value. The remaining field compartments would be retained and restored within a Country Park which is to be created and managed to improve the biodiversity value of all habitats within the site.

7.12 It is considered that the hedgerow network is of higher value with all except one meeting the criteria to qualify as a HPI and LBAP habitat within Birmingham. The hedgerows were largely unmanaged at the time of the survey and would benefit from long-term management to retain their biodiversity interest. The scheme has sought to use the existing field access points wherever possible to minimise the loss of the hedgerow network as far as possible. The scheme will result in the loss of H30 and the of small sections from H22, H29, H31 and treeline TL4. This loss will be compensated for through the planting of new species-rich hedgerow throughout the green corridors of the site to reinstate the long since removed historical field boundary hedgerows. Given the nature of these proposals it is our opinion that negative effects and significant harm to the hedgerow network is avoided.

7.13 The proposals have been designed to retain the hedgerows, retained, and enhance 15ha of grassland and the implementation of new wetland features within the sympathetically designed balancing facilities will ensure continued ecological connectivity Merrion's Wood Local Nature Reserve and Hill Farm Bridge Fields SINC. In addition to these features green infrastructure corridor has been provided through the development which allows connectivity between the urban environment and the wider countryside.

Habitats

7.14 The principal policy concerns relating to the proposals are surrounding the potential effects to the Peak Farmhouse SINC which are considered above.

7.15 In terms of other habitats, the proposals have retained the existing pond and proposed enhancements to the ponds, the mature trees and treelines are also retained, and the existing scrub habitats effected by the development are afforded any level of policy protection. Through the habitat enhancements and habitat creation measures proposed it is our opinion that the proposals are in accordance with all national and local planning policies.

7.16 The application of appropriate protection measures in a Construction and Environmental Management Plan during the construction period will ensure that the quality of all retained habitats is maintained during the construction period and compliance with relevant national and local policy.

7.17 Assessment of the proposals using DEFRA metric 4.0 has confirmed a net gain of 37.07 habitat units (+18.27%) and 4.85 hedgerow units (+10.35%) can be achieved through development of the Site. Consequently, the proposals accord with the requirements of Part 6 of the Environment Act once mandated and the requirements of the NPPF (September 2023).

Species

7.18 The completed surveys work did not identify the presence of badger, great crested newts or reptiles within the Site. Consequently, there are no legal or policy considerations from these species or groups.

7.19 As outlined in Section 6.0 several mature trees with features suitable to be used as a bat roost have been identified. These trees are retained and protected in the proposals which ensure compliance with all relevant legislation and policy relating to protected species.

7.20 The completed survey work did not record significant amounts of bat activity within the Site and the mitigation inherent within the design will avoid potential effects to commuting to foraging bats. Given these provisions it is our opinion that the proposals are in accordance with the requirements of the relevant legislation and national / local planning policies relating to bats.

7.21 Extensive ecological survey work has not identified the presence of a significant assemblage of breeding birds and through the application of the mitigation outlined in Section 6 no significant to the local breeding bird population has been identified. Given this we have concluded that the proposals do following all the relevant policy requirements associated with breeding bird populations.

8.0 SUMMARY & CONCLUSIONS

8.1 The proposals will not affect the conservation importance of any of the statutory designated site of importance for nature conservation.

8.2 A number of non-statutory designated site are present in the ZoI surround the Site, Wildness Wood SINC and Hill Farm Bridge Field SINC / SLINC are present on land immediately adjacent to the site. The proposal will not result in a direct effect to either of these sites and increased recreational pressure within these sites is not expected as there are no formal public rights of ways through either of these sites. In additional to a lack of formal public right of way, the proposals provide inherent mitigation to avoid and reduce potential increases in recreational pressure outside the Site. These areas of formal and informal open space within the Site are provide through grassland habitats which will be enhanced for the proposes of biodiversity and nature conservation and to improve recreational resource closer to nature.

8.3 The proposals will result in the loss of a proportion of the Peak House Farm SINC to the construction of residential development and the associated infrastructure including informal open space adjacent to the development and balancing facilities. This local designation was historically made on the basis of the hedgerow network but through the emerging Local Plan process, the scope was expanded to cover the grassland and increasing the designation from a SLINC to a SINC.

8.4 Notwithstanding the increased designation, the Local Sites Assessment report accepts lack of appropriate management is affecting and quality of the grassland and the detailed survey work completed by FPCR confirmed the quality of the grassland has degraded since the survey completed by Ecological Solutions in 2020. The grassland has been subject to long-term and consistent modification which is reflected through the lush growth and dominance of grass species across the sward. Given the quality of the grassland is degrading through a lack of appropriate management, it is our opinion that the conservation value of the site is being ‘harmed’ and whilst

the development will result in loss of area from the site, 'harm' to the ecological interest as defined in ENV1 or the 'significant harm' as defined in Para 180 (a) of the NPPF (September 2023) is already occurring and the proposals can secure restoration and long-term management of the remaining areas of the locally designed site, in accord with the requirements of these policies.

8.5 Given there are no statutory powers to enforce management across the site and proper management of the retained grassland areas can be enforced through the requirements of a S106 agreement, it is our opinion that the proposals would provide long terms benefits to the conservation status of the retained SINC.

8.6 The proposals have maximised retention of hedgerows within the site and mitigation / compensation for the minor losses have been provided through the creation of new hedgerow on the former field boundaries. The retention of these hedgerows and the creation of additional hedgerow assist in maintaining connectivity between land / wildlife site north and south of the site.

8.7 In terms of habitat and linear features the proposals have demonstrate a net gain of 37.07 habitat units (+18.27%) and 4.67 hedgerow units (+10.02%) can be achieved through development of the Site. This is a significant net gain which exceeding the minimum requirements of the NPPF (September 2023) and the minimum requirements of the Part 6 of the forthcoming Environment Act.

8.8 The completed surveys did not identify any significant activity from protected or notable species. Given the limited level of activity recorded and the significant amount of habitat mitigation and compensation provided within the overall package it is our opinion that the proposals with not result in significant negative effects to these groups and it is likely that the proposals are likely to result in positive effect to a number of the species and groups.

8.9 In conclusion, despite the small loss to the Park House Farm SINC, it has been concluded that the proposals could through the application of planning conditions requiring the application of appropriate management result in long term benefits to the biodiversity and nature conservation locally.

Key

- Site Boundary
- 1km buffer
- 2km buffer
- 5km buffer
- 10km buffer
- Site of Importance for Nature Conservation (SINC)
- Site of Local Importance for Nature Conservation (SLINC)
- Local Nature Reserve (LNR)
- Ancient Semi-Natural Woodland (ASNW)
- Replanted Ancient Woodland Site (PAWS)
- Special Area of Conservation (SAC)

1 - Peakhouse Farm SINC
2 - Hill Farm Bridge Fields SINC
3 - Wilderness Wood SINC
4 - Merrion's Wood SINC, LNR, ASNW
5 - The Duckery SINC
6 - Ray Hall Sewage Works, Sandwell Valley SINC
7 - Land at Yew Tree SLINC, PAWS
8 - Rushall Canal SLINC
9 - Land Bordering the M6 Motorway SLINC
10 - Redhouse Park SLINC
11 - Land East of Chapel Lane SLINC
12 - Shustoke Farm SLINC
13 - Whitecrest Open Space SLINC
14 - High Wood ASNW
15 - Cannock Extension Canal SAC

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client
Wain Estates

project
Land North of Wilderness Lane, Great Barr, Birmingham

drawing title
SITE LOCATION AND CONSULTATION RESULTS PLAN - DESIGNATED SITES

scale @ A3	drawn	issue date
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drawing / figure number
Figure 1a

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Key

- **Site Boundary**
- **1km Buffer**
- **Potential Site of Importance (PSI)**
- **Linear Potential Site of Importance (PSI)**

1 - Aston University Sports Ground PSI
2 - Skip Lane Fields PSI
3 - Rushall Canal PSI
4 - Woodlands Avenue PSI
5 - Old Park Wood PSI
6 - Great Barr Golf Course PSI
7 - Great Barr Park PSI
8 - M6 Motorway Corridor PSI
9 - Yew Tree Primary School PSI
10 - Brackendale Drive Open Space PSI
11 - Tame Valley PSI
12 - Walsall Golf Course PSI
13 - Red House Park PSI
14 - Redhouse Road PSI
15 - Ray Hall Lane Pastures, Sandwell Valley PSI
16 - M5 Motorway Corridor PSI
17 - Tame Valley Canal PSI
18 - Ray Hall Sewage Works PSI
19 - Pastures South of Barr Lakes Lane PSI
20 - Unnamed Linear PSI
21 - Unnamed Linear PSI
22 - Unnamed Linear PSI
23 - Unnamed Linear PSI
24 - Unnamed Linear PSI
25 - Unnamed Linear PSI

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SITE LOCATION AND CONSULTATION RESULTS PLAN - POTENTIAL SITES OF IMPORTANCE

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Figure 1b

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Key

- Site Boundary
- 1km buffer

Birds

- Barn Owl
- Dunnock
- Herring Gull
- House Sparrow
- Linnet
- Song Thrush
- Starling
- Whitethroat
- Woodpigeon
- Wren
- Yellow Wagtail

Herpetofauna

- Common Frog
- Common Toad
- Smooth Newt

Invasive and Non-Native Species (INNS)

- Japanese Knotweed
- Nuttall's Waterweed
- Rhododendron

Mammals

- Badger
- Hedgehog

Notable Invertebrates

- Cinnabar
- Coenosia atra

Notable Plants

- Bluebell
- Common Cudweed
- Wild Pansy

Species Records of 1km Accuracy

- Species within SP0596: Badger; Bluebell

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SITE LOCATION AND CONSULTATION RESULTS PLAN - SPECIES RECORDS

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Figure 2a

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Key

- Site Boundary
- 1km buffer

Bats

- Brown Long-eared
- Common Pipistrelle
- Daubenton's
- Leisler's
- Myotis sp.
- Nathusius's Pipistrelle
- Natterer's
- Noctule
- Pipistrelle sp.
- Serotine
- Soprano Pipistrelle
- Unidentified bat sp.
- Whiskered
- Whiskered/Brandt's

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project
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drawing title
SITE LOCATION AND CONSULTATION RESULTS PLAN - BAT RECORDS

scale @ A3 1:11000 | drawn LG / HEH | issue date 1/9/2023

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Key

- Red Line Boundary
- Target Note Areas
- Target Note Point

Baseline Habitats

- Bracken
- Bramble scrub
- Developed land; sealed surface
- Mixed scrub
- Other neutral grassland
- Ponds (non-priority habitat)
- Tall forbs

Baseline Hedgerows

- Non-native and ornamental hedgerow - H33
- Line of trees - TL2, TL3, TL4, TL5
- Line of trees - associated with bank or ditch - TL1
- Native hedgerow - H1, H2, H6, H8, H14, H17, H19, H20, H21, H22, H26,H28, H29, H30, H32
- Native hedgerow - associated with bank or ditch - H3, H5, H9
- Native hedgerow with trees - H4, H15, H23, H24, H25, H27, H31
- Native hedgerow with trees - associated wit bank or ditch - H10, H11, H13, H16
- Species-rich native hedgerow - H18
- Species-rich native hedgerow with trees - associated with bank or ditch - H7, H12

Baseline Trees

- Existing Large Rural Tree
- Existing Medium Rural Tree

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masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

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client
Wain Estates

project
Land North of Wilderness Lane, Great Barr, Birmingham

drawing title
BASELINE HABITAT PLAN

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issue date
1/9/2023

drawing / figure number
Figure 3

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