

Bosworth Lakeside Lodges

Preliminary Ecological Appraisal Report (PEAR)



Client:

Bosworth Lakeside Lodges Ltd

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EXECUTIVE SUMMARY

- i RammSanderson Ecology Ltd were commissioned by Bosworth Lakeside Lodges Ltd to undertake a Preliminary Ecological Appraisal to assess the potential ecological constraints to the proposed holidays lodges, car park, hub building and landscaping (hereafter referred to as the Scheme), located in Market Bosworth, Leicestershire.
- ii The land within the Scheme Boundary (hereafter referred to as the Site) is 4.8 ha in size and comprised of modified grassland, hedgerows, scrub, individual trees, pond, woodland, and cropland in the form of a Christmas tree plantation.

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
Designated Sites	Impacts upon nearby non-statutory sites such as the Ashby Canal Local Wildlife Site (LWS) cannot be ruled out as the proposals may result in increased visitor pressure. No impacts upon statutory designated sites are anticipated. Adhere to Pollution Prevention Guidance to prevent accidental pollution to nearby designated sites.	Appropriate informative signage should be placed within the development to reduce impacts.
Habitats	Proposals are limited to the modified grassland and arable land with hedgerows, scrub and woodland retained. Should proposals change then further surveys for hedgerows may be required. Japanese knotweed was present on-site, a risk of spreading this invasive species remains. Adhere to Pollution Prevention Guidance to prevent accidental pollution to retained and nearby habitats.	Appropriate removal and disposal of Japanese knotweed is required. Two treatments per year, 1st treatment June-July and 2nd, August-September. If required, hedgerow surveys can be conducted anytime of year.
Badger	No evidence of badger was found on-site however, there remains a risk that badgers setts are present within 30m of the Site due to the suitability of off-site scrub and woodland habitats. There is a residual risk of transient badgers visiting the Site during the construction phase.	A pre-commencement badger walkover of the Site and suitable habitats with 30m of the Site is required. Follow best practice with regards to badger during the construction phase.
Bats	A full assessment of the on-site trees was beyond the remit of this survey, should trees be directly or indirectly impacted by the works (removal, pruning and additional lighting), a risk of harming/disturbing roosting bats remains.	A Ground Level Tree Assessment (GLTA) will be required. This can be conducted anytime of year. Should Potential Roosting Features (PRFs) be identified then further surveys may be required.
Otter and Water Vole	Due to the proximity of D7 to Site, a risk of disturbing otter holts remains. The on-site ditches only contained a small amount of standing water and will likely dry in warmer month. These may be utilised by commuting otter and a residual risk of causing harm during the construction phase remains.	Two surveys spaced at least one month apart, can be undertaken at any time of year, though the period of October – March is considered sub-optimal.

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
	No risk of disturbing water vole, current proposals do not directly impact waterbodies suitable for water vole	
Great Crested Newt	Risk of harming great crested newt (GCN) during the construction phase due to on-site pond P1. Risk of disturbing and harming GCN during the hibernation periods through the removal of brash and rubble piles.	Environmental DNA surveys are recommended. eDNA surveys are conducted during the breeding season mid-April - June (inclusive). Environmental (eDNA) surveys will inform further mitigation. Alternatively, a District Level Licence could be sought to facilitate and compensate for the Scheme.
Reptiles	The Christmas tree plantation and peripheral habitats such as woodland and hedgerows may provide refugia for reptiles. Woodland hedgerow clearance is not currently scheduled however, the plantation will be removed and a risk of harm during the vegetation clearance remains. Further risk of disturbance during the hibernation period also remains due to the presence of brash and rubble piles on-site.	A precautionary method works is required to reduce the risk of harm to reptiles during vegetation or hibernacula clearance. This will be informed by the results of the GCN eDNA surveys. Current management regime of the grassland should be maintained.
Birds	A risk to disturbing barn owl and kingfisher remains, with woodland edges offering scope for barn owl and D7 potentially providing opportunities for kingfisher. To prevent risk of disturbing or harming nesting birds including kingfisher, vegetation clearance should be conducted outside of the nesting bird season].	Scoping surveys for barn owl can be conducted any time of year (ideally in winter). Vegetation clearance outside the core bird nesting season (1st March to 31st August).
Terrestrial Invertebrates	No risk of affecting significant terrestrial invertebrate populations, the most valuable habitats on-site are retained in current proposals.	N/A
Aquatic Invertebrates (including White-clawed Crayfish)	No risk of causing harm to White Clawed Crayfish (WCC), a record for American Signal crayfish was returned within the desk study, this was located 0.6km from Site. This indicates likely absence of WCC from the area. Furthermore, the on-site ditches were considered suboptimal for white clawed crayfish.	N/A
Other Notable Species	Potential to cause harm to notable species such as hedgehog and common toad during the construction phase	Follow best practice outlined for badger.

CONTENTS

EXECUTIVE SUMMARY	3
1 INTRODUCTION	6
2 BASELINE CONDITIONS, CONSTRAINTS AND RECOMMENDATIONS	8
3 OPPORTUNITIES FOR ENHANCEMENTS	24
4 CONCLUSION	25
5 FIGURES	26
6 REFERENCES	34

FIGURES

FIGURE 1: SITE LOCATION AND CONTEXT PLAN	26
FIGURE 2: WATERBODY PLAN	28
FIGURE 3: UK HABS HABITAT PLAN	30
FIGURE 4: CLIENT PROPOSALS	32

TABLES

TABLE 1: DESIGNATED SITES	8
TABLE 2. NOTABLE HABITATS AND PROTECTED AND NOTABLE FLORA WITHIN STUDY AREA	10
TABLE 3: HABITATS WITHIN SURVEY AREA	11
TABLE 4. SUMMARY OF FEATURES WITH POTENTIAL TO SUPPORT GREAT CRESTED NEWT	20
TABLE 5: SUMMARY OF RECOMMENDATIONS	25
TABLE 6: HSI SCORING CRITERIA	41

APPENDICES

APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY	35
APPENDIX 2: METHODOLOGY	39

1 INTRODUCTION

1.1 Terms of Reference

- i RammSanderson Ecology Ltd (RS) were commissioned by Bosworth Lakeside Lodges Ltd to undertake a Preliminary Ecological Appraisal (PEA) to assess the potential ecological constraints to the proposed holiday lodges, car par, hub building and landscaping (hereafter referred to as the Scheme), located in Market Bosworth, Leicestershire. All land situated within the red line of the Scheme is hereafter referred to as the Site and is shown on Figure 1.
- ii The PEA has been undertaken with reference to current good practice¹ and forms part of the technical information commissioned by Bosworth Lakeside Lodges Ltd in connection with the Scheme. The results of the PEA are presented in this PEA report (PEAR), which addresses relevant wildlife legislation and planning policy as summarised in Appendix 1. The PEAR is consistent with the requirements of British Standard 42020:2013 *Biodiversity. Code of Practice for Planning and Development*.
- iii This PEAR is intended for advice in respect of Scheme design, site layout and / or site investigation. Further ecological surveys and / or ecological impact assessment (including detailed mitigation measures) may be required in connection with a planning application or to contribute to an Environmental Impact Assessment once the Scheme proposals have been finalised and any required surveys have been completed.

1.2 The Scheme

- i The Scheme proposes the construction of 40 lodges, parking, access roads and amenities building. The Scheme also proposes enhancements through native planting and pond creation. Current proposals indicated that works with will be confined to the modified grassland and Christmas tree plantation, with the hedgerow, woodland and scrub peripheries retained.

1.3 The Site

- i The Site is located in Market Bosworth, Leicestershire (closest postcode CV13 6PD) at Ordnance Survey national grid reference SK 38842 03096 and is approximately 4.8 ha in size.
- ii The Site comprises modified grassland, hedgerows, scrub, pond, woodland, and cropland in the form of a Christmas tree plantation. The Site is bounded by Wellsborough Road and Coton Bridge Lane and the wider area consists of playing fields, arable land, marinas, and woodland.

1.4 Scope of the Preliminary Ecological Appraisal

- i This PEAR presents ecological information obtained during the following:
 - A desk-study was undertaken on 08/12/23 and 23/01/24 to obtain records of designated sites, notable habitats² and protected and notable species³ up to 1km of the Site (the area covered by the desk study is hereafter referred to as the Study Area); and,

¹ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

² Notable habitats are taken as principal habitats for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; habitats listed under the Leicestershire and Rutland Biodiversity Action Plan (BAP); hedgerows identified as being 'important' under the wildlife criteria of the Hedgerow Regulations 1997, ancient woodlands and veteran trees.

³ Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any species listed in an IUCN Red Data Book; and any other species listed under the Leicestershire and Rutland

- A walkover survey of accessible land within the Site (the area covered by the survey is hereafter referred to as the Survey Area) on 15/11/23.
- ii The purpose of the PEAR is to provide a high-level ecological appraisal of the Site, specifically to:
- establish baseline conditions and determine the presence of Important Ecological Features (IEF)⁴ (or those that could be present), as far as is possible;
 - to identify potential ecological constraints to the Scheme and make initial recommendations to avoid impacts on IEFs, where possible;
 - to identify requirements for mitigation, where possible, including mitigation measures that will be required and those that may be required (depending on results of further surveys or final scheme design);
 - to establish any requirements for more detailed surveys; and,
 - to identify any opportunities offered by the Scheme to deliver biodiversity enhancements.
- iii The methodology followed for undertaking the desk study and field surveys is detailed in Appendix 2.

⁴ Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Scheme.

2 BASELINE CONDITIONS, CONSTRAINTS AND RECOMMENDATIONS

2.1 Surveyor Competence

- i The walkover survey was led by Bethany Garner (BSc (Hons), MSc, QCIEEM), whom has been a professional ecologist for 1 year and has the required competencies (Chartered Institute of Ecology and Environmental Management) to undertake this type of survey.

2.2 Limitations to the Assessment

- i General limitations to undertaking desk and field-based assessments are provided in Appendix 2. Specific limitations to the assessment are detailed below:
- Survey conducted outside of the main floristic season, which is generally considered less efficient than the survey being completed during the spring or summer, and it is possible that some plant species have been missed by the field survey. However, in view of the ecological character of the habitats recorded it is considered that the survey is adequate to make a robust assessment of habitats present and the sites likely nature conservation significance.

2.3 Designated Sites

2.3.1 Desk Study

- i 18 non-statutory designated sites were returned within the desk study, the closest records include the Ashby Canal, Sedgemere and Bosworth Marina Wetland, all of which are Local Wildlife Site (LWS) located 0.2km from the Site Boundary. An additional non-statutory site in the form of a historic LWS was also located 0.2km from the Site this was Market Bosworth, Friezeland Farm pool.
- ii Table 1 summarises the designated sites situated within the Study Area.

Table 1: Designated Sites

Site Name			Designation	Location ⁵	Brief Description
Ashby Canal, Bosworth	Market	LWS ⁶		0.2km E	Canal.
Bosworth Marina wetland		LWS		0.2km NE	Recently created pond, formed as part of ecology compensation for construction of Marina.
Sedgemere, Bosworth	Market	LWS		0.2km E	Wet grassland.
Market Bosworth, hedge 2		LWS		0.5km E	Hedgerow.
Market Bosworth, Kyngs Golf Course Ponds and Tree		LWS		0.6km NE	Ponds.
Market Bosworth, Station Rd veteran ash		LWS		0.7km E	Veteran ash.

⁵ Where designated sites are situated outside of the Site boundary, the distance and direction is given at the closest point of the designated site from the Site

⁶ LWS – Local Wildlife Site.

Site Name	Designation	Location ⁵	Brief Description
Market Bosworth, hedge 1	LWS	0.7km E	Hedgerow.
Spinney hedgerow	LWS	0.7km W	Hedgerow.
Bosworth Road hedgerows	LWS	0.8km W	Hedgerow.
Market Bosworth, Friezeland Farm pool	Historic LWS ⁷	0.2km NW	Main habitat pond.
Carlton, grassland	Historic LWS	0.3km W	Main habitat grassland.
Ashby Canal, Welsboro Bridge to Deakin's Bridge	Historic LWS	0.5km S	Main habitat canal.
Marsh/rough grassland	Historic LWS	0.4km SE	Main habitat swamp.
Market Bosworth, Far Coton, pond between canal and railway	Historic LWS	0.5km S	Main habitat pond.
Dismantled Railway	Historic LWS	0.6km S	Main habitat grassland.
Woodland	Historic LWS	0.7km SW	Main habitat woodland.
Grassland	Historic LWS	0.9km N	Main habitat mesotrophic grassland.
Market Bosworth, woodland S of Mill Covert	Historic LWS	0.9km NE	Main habitat woodland.

2.3.2 Constraints and Recommendations

- iii No impacts upon statutory sites are anticipated from the proposals as no statutory sites were identified within the Study Area and the proposal are not of a type listed within the SSSI impact risk zones, for Ashby Canal SSSI.
- iv The majority of designated sites within close proximity to Site are beyond roads therefore impacts during the construction phase are not anticipated, however, the Ashby Canal LWS is connected to a watercourse located approximately 40m from the Site Boundary. To prevent impacts to the watercourse and canal, pollution prevention methods should be followed to prevent accidental pollution to the nearby watercourse. Containment systems for pollution prevention C736F (CIRIA, 2014) include measures to prevent silt and chemicals entering any of the nearby watercourses through the provision of spill kits and drip trays.

⁷ Historic LWS – Historic Local Wildlife Site.

- v Impacts upon nearby LWS's cannot be ruled out due to increased visitor pressure as a public pathway is located along the Ashby Canal. It is recommended that informative signage is utilised to highlighting the nearby sites to prevent damage through actions such as trampling and littering.

2.4 Habitats

2.4.1 Desk Study

- i 17 Habitats of Principal Importance (HPI) were present within the Search Area, all of these were deciduous woodland parcels. The closet record was located adjacent to the southern boundary.
- ii Table 2 summarises the records of notable habitats and protected or notable flora⁸ (including veteran trees⁹) within the Study Area.

Table 2. Notable Habitats and Protected and Notable Flora within Study Area

Habitat/ Flora Feature	Reason for Conservation Interest	Location ¹⁰	Desk Study Comments
Deciduous woodland	Priority Habitat, Local Biodiversity Action Plan Habitat.	Closest parcel adjacent S; additional 16 parcels in all directions.	

2.4.2 Field Survey

- iii Summary descriptions of the habitats within the Survey Area are provided below in Table 3 and shown on Figure 3, with specific features highlighted by TNs.
- iv Habitats were recorded using UK Habs guidelines (UKHabs, 2023). The species list provided in this report reflect only those taxa observed during the survey and are not an exhaustive list of all species that may be present, as the survey only provides a snapshot of the Site.
- v Japanese knotweed was identified within the northwestern aspect of the Site. This is a Schedule 9 invasive species on the Wildlife and Countryside Act.

⁸ For this assessment 'flora' includes vascular and non-vascular plants, fungi and lichens.

⁹ For this assessment the definition of a veteran tree is taken from Annex 2 of the National Planning Policy Framework (glossary): "A tree which, because of its great age, size or condition is of exceptional value for wildlife, in the landscape, or culturally."

¹⁰ Where features are situated outside of the Site boundary, the distance and direction is given at the closest point of the designated site from the Site

Table 3: Habitats within Survey Area

Habitat	Description	Area (m ²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
W1g broadleaved woodland 50 Ditch	Other A strip of broadleaved woodland was present on the western boundary of the Site. Species included dominant blackthorn and abundant bramble. Other species included frequent field maple, ash and ivy with occasional oak and rare apple. Scrub was present within the woodland and had been managed from the roadside. A ditch was present within the woodland, it contained some standing water but was dry in places. Standing water was 2-3cm deep.	2631.8	5.33	Ecological valuable to a range of species including mammals, amphibians and nesting birds.	
H3h Mixed Scrub	An area of mixed scrub was present on the western and southern boundaries of the Site. Species included dominant hawthorn and blackthorn, abundant bramble, occasional ash and rose species with rare field maple. An additional area of mixed scrub was present in the northwestern aspect of the Site, this surrounded the pond. Species included dominant blackthorn, occasional ash, field maple and oak trees, with rare hazel and rose species. Abundant nettle was also present.	1695.6	3.44	Ecological valuable to a range of species including mammals, amphibians, and nesting birds.	

Habitat	Description	Area (m ²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
G4 Modified Grassland	The majority of the Site comprised of modified grassland, dominated by perennial rye, abundant clover, frequent dock, dandelion, ribwort plantain, thistle species and creeping buttercup. With occasional hogweed, bristly oxtongue, moss and broadleaved plantain and rare Yorkshire fog and cocksfoot grass. The grassland was regularly managed, and areas of bare ground were present where vehicles had accessed the Site and spoil heaps were created. Japanese knotweed was present in the western aspect of this habitat (TN1).	35608.9	72.16	Limited ecological value may be of some value to foraging mammals and birds.	

Habitat	Description		Area (m ²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
H3d scrub	Bramble	A small area of bramble scrub was present on the southern boundary of the Site.	102.7	0.21	Of some ecological valuable to a range of species including mammals, amphibians, and birds.	
C1d Non cereal crop		A Christmas tree plantation was present in the southern aspect of the Site. All trees were small and not much taller than 2m.	8923.21	18.08	Limited ecological value may be of some value to mammals and nesting birds.	

Habitat	Description	Area (m ²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
R1g Other standing water - Pond	A pond was present within the northeast aspect of the Site. It likely dries in the warmer months and its heavily shaded due to the surrounding scrub. Mostly common nettle and grass species were present within the pond.	77.32	0.16	Ecological valuable to amphibian species. May be on some value to foraging birds and mammals.	

Habitat	Description	Area (m²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
H2a5, 11, 50 Species rich native hedgerow with trees associated with a ditch	H1- H2m x W1.75m. Managed in an A formation, species included dominant blackthorn, abundant oak, frequent hawthorn and ivy , with occasional holly, apple and ash. Tree species included oak and ash; a dead tree was also present.	150m	N/A	Ecological valuable to a range of species including mammals, amphibians and nesting birds.	

Habitat	Description	Area (m²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
H2a5, 50, Species rich native hedgerow associated with a ditch	H2- H3m x W1.5m. Managed in an A formation, species included dominant blackthorn, abundant bramble, frequent dogwood and elm. It also included occasional apple and hawthorn with rare rose and field maple. Ditches were present on both sides of the hedgerow.	380m	N/A	Ecological valuable to a range of species including mammals, amphibians and nesting birds.	

2.4.1 Constraints and Recommendations

- vi Habitats onsite were of limited botanical interest, dominated by modified grassland with cropland, woodland, hedgerows, pond and scrub. Species identified were common and widespread and were not considered of significant ecological importance. Hedgerows and woodland are considered of some higher ecological value, largely noted for their value to protected species and as a commutative resource rather than their botanical value. Hedgerows located on Site that were comprised of over 80% native species are also Habitat of Principal Importance (HPI) under the NERC Act (2006) and should be considered during planning.
- vii Impacts upon nearby HPI'S cannot be ruled out due to increased visitor pressure. It is recommended that informative signage is utilised to highlighting the nearby habitats to prevent damage through actions such as trampling and littering.
- viii Appropriate remediation of Japanese knotweed is required to prevent spread. Two treatments per year are recommended, one between June and July and the second between August and September. Eradication typically takes up to 3 years, but this varies depending upon how established it is. Until this is completely eradicated / removed from Site a working method including 7m stand off from plants must be implemented.
- ix It is recommended that dust suppression techniques are utilised during the construction phase and that Pollution Prevention Guidance C736F (CIRIA, 2014) is adhered to, in order to reduce the risk of accidental pollution to onsite retained habitats such as ditches.
- x It is also recommended that the Root Protection Zones of retained trees and hedgerow are maintained. Arboriculture surveys may be required to identify the Root Protection Zones of retained trees and hedgerows to avoid indirectly or directly impacting these during the construction phase.
- xi Should proposals change and the hedgerow peripheries require removal to facilitate the Scheme, it is recommended additional hedgerow surveys are conducted in line with the Hedgerow Evaluation and Grading System (HEGS) (Clements and Tofts, 1992) and the Hedgerow Regulations (1997) to determine the conservation status of these hedgerows and if they are ecologically important. This can be undertaken at any time of year.

2.5 Badger

2.5.1 Desk Study

- i There are ten recent records of badger within the Study Area.

2.5.2 Field Survey

- ii No evidence of badger was identified during the survey; however, the woodland, scrub, hedgerow, cropland, and grassland habitats may provide foraging, sett digging and commuting opportunities. Consequently, their presence on-site cannot be ruled out.

2.5.3 Constraints and Recommendations

- iii A pre-commencement badger walkover of the Site and suitable habitats with 30m of the Site is required to fully assess the Site for this species.
- iv During construction it is recommended that best practice is followed in respects to badger. This should include
 - Mammal ladders (such as a plank) or earth ramps to be placed in any open excavations at the end of each day;
 - Cap off any open pipes at the end of each day;
 - Cover any open holes, or install mammal ladders or earth ramps in any open excavations at the end of each day to prevent animals from becoming trapped;
 - Keep all fuel and other harmful substances in a locked area;
 - Ensure any spillages are treated with spill kits;

- If any fresh sett digging is observed notify an ecologist immediately and leave a 20m buffer around the area until an assessment can be made.

2.6 Bats

2.6.1 Desk Study

- i There are 32 recent records of bats within the Study Area. The closest / most relevant of these records are of Daubenton's bat, noctule and common pipistrelle associated with the boating lake which is approximately 0.2km from the Site Boundary. A roost record for a pipistrelle species was returned within the Search Area, this was located 0.3 km east of the Site and associated with a woodland and Sedgemere LWS. All bat species are a priority species within the Leicestershire and Rutland Local Biodiversity Action Plan (LBAP).
- ii Two European Protected Species Licence were returned within the Search Area. They were both located 0.9km from the Site, one of which allowed for destruction of a brown long-eared bat resting place and the other for a common pipistrelle resting place.

2.6.2 Field Survey

Trees

- iii A Ground Level Tree Assessment was beyond the remit of this preliminary survey, although numerous trees were present within the Site boundary, which may have features of value to support roosting bats. Trees within the boundary of the Site were incidentally noted to have features of value to roosting bats. Therefore, the potential for trees onsite to support roosting bats cannot be ruled out.

Foraging

- iv The Site has suitable foraging and commuting value for bats, comprising the hedgerows, woodland, and scrub habitats. The Site also had connectivity to a large area of woodland south of the boundary, furthermore, the waterbodies west of the Site may provide foraging opportunities for Daubenton's bats.

Buildings

- v No buildings were present on-site.

2.6.3 Constraints and Recommendations

- vi It is recommended that all hedgerows and trees are retained on-site where possible to maintain foraging and commuting resource, and potential roosts. If any direct or indirect impacts i.e. lighting or pruning are anticipated, a further Ground Level Tree Assessment (GLTA) will be required in order to assess the trees for features of bat roost potential. A GLTA can be undertaken any time of year and are best conducted in winter when foliage does not obscure Potential Roosting Features (PRF).
- vii Where PRF-I's are identified, i.e. Potential Roosting Features suitable for individual bats or small numbers of bats, and the tree is to be impacted, further surveys would not be required, but appropriate compensation and Precautionary Methods should be implemented. Where PRF-M's are identified, i.e. Potential Roosting Features suitable for multiple bats and potentially a maternity colony, and the tree is to be impacted, further surveys may be required. This may include a PRF inspection survey or emergence surveys during summer, i.e. May to August.
- viii Should proposals change and a significant loss of hedgerow, woodland and scrub habitats are anticipated then further activity surveys may be required.

2.7 Otter and Water Vole

2.7.1 Desk Study

- i There are 3 recent records of otter within the Study Area. The closest / most relevant of these records is associated with Ashby de la Zouch Canal which is approximately 150m from the Site boundary.
- ii There are 8 recent records of water vole within the Study Area. The closest / most relevant of these records is associated with a pond which is approximately 0.2km from the Site boundary.
- iii A ditch (D7) was present approximately 40m south of the Site Boundary, this may provide opportunities for foraging and commuting otter and water vole, in addition to opportunities for burrow creation and holts, the woodland associated with this ditch provides optimal habitat for otter holts. The ditch provides connectivity from Ashby Canal to P12, consequently the ditch may be a valuable commuting and refuge route. However, D7 can be ruled out of consideration for water vole as it is unlikely the Scheme would disturb or cause harm to water vole given the distance from Site, on the other hand the zone of influence for otter is significantly larger and requires further consideration.
- iv The on-site ditches D1 and D2 may also provide opportunities for otter and water vole. However, they have been ruled out of further consideration, see field survey results below.

2.7.2 Field Survey

- v No suitable habitat for otter and water vole were present on-site, although ditches (D1 and D2) were present these were found to only contain a small amount of standing water, even after a period of heavy rainfall. D1 and D2 are likely dry in warmer month and have been ruled out of further consideration for water vole. However, they may be utilised by commuting otter but do not provide suitable foraging habitat.
- vi Further survey for water vole are deemed unnecessary as current proposal do not directly impact waterbodies suitable for water vole, consequently it is unlikely the Scheme would disturb any water vole.

2.7.3 Constraints and Recommendations

- vii It is recommended surveys for otter are conducted to determine presence / absence within 100m of the Site Boundary, this included surveying D7 and woodland habitats. Surveys comprise of two visits spaced at least one month apart and should be undertaken by a suitably experienced ecologist. Surveys can be undertaken at any time of year, though the period of October – March is considered sub-optimal.

2.8 Great Crested Newt

2.8.1 Desk Study

- i There are 32 recent records of great crested newts within the Study Area. The closest / most relevant of these records is associated with P18 which is approximately 0.4km northeast of the Site boundary.
- ii A total of 39 water bodies are present within 500m of the Site, all can be scoped out of further consideration except for P1, D1 and D2. D1 and D2 have been scoped out during the field survey, see Field Survey results for further details.
- iii All waterbodies north of the Site are beyond Wellborough Road, given the number of leisure activities surrounding the Site and the town of Market Bosworth to the west it is likely this road is frequently used and therefore presents a barrier to dispersal for GCN. It is unlikely GCN would commute across this road to access the Site when suitable habitat is present north of this road.
- iv P12 is a fishing lake within the existing Bosworth Lakeside Lodges development, large fish such as carp predate on GCN larvae, it is therefore likely GCN are absent from this waterbody. P13 and P14 can also be ruled out as these are located on islands within P12 and it is unlikely GCN would commute across the fishing lake to access these waterbodies. P15 and P16 are also part of the existing development of Bosworth

Lakeside Lodges. P16 can be ruled out of further consideration as this is a wading pool devoid of vegetation and subject to frequent disturbance. Although P15 is vegetated, this waterbody is used for recreational activities such as water sports and swimming, this is highlighted by the presence of jetties. Consequently, P15 is subject to frequent disturbance and likely stocked with fish, it can therefore be ruled out of further consideration as it is unlikely GCN would utilise this waterbody for breeding.

- v The Ashby Canal (WC1) and connecting ditch (D7) can also be scoped out of further consideration due the likely presence of large fish which predate of GCN larvae, furthermore, these are likely flowing watercourses which are suboptimal for GCN breeding.
- vi The remaining waterbodies, D8, D9, D10, D11 and P17 can be scoped out as they are more than 250m from the Site and suitable habitat is located nearby such as woodland and hedgerows. It is widely accepted, and studies have shown, most adults will stay within 250m of a breeding pond, depending on the quality of surrounding habitat (Froglife, 2001).

2.8.2 Field Survey

- vii Table 4 summarises the features that have the potential to support great crested newts. Where access to aquatic features was possible, habitat suitability index (HSI)¹¹ assessments have been completed.
- viii The on-site pond (P1) could provide opportunities for breeding GCN. D1 and D2 were found to only contain a small amount of standing water, even after a period of heavy rainfall. These ditches are likely dry in warmer month during the GCN breeding season and have been ruled out of further consideration.
- ix Brash piles, rubble piles and spoil heaps were noted on-site these may provide opportunities for hibernating GCN.
- x Features in Table 4 are shown on Figure 2.

Table 4. Summary of features with potential to support Great Crested Newt

Feature	Description	Location	HSI Score	Photograph
Pond (P1)	A shallow, pond, located within a scrub area and adjacent to a hedgerow, possibly associate with ditch also.	On-site	0.5 Below Average	

2.8.3 Constraints and Recommendations

- xi Environmental DNA surveys are recommended for P1, surveys should be conducted mid-April- June (inclusive) during the GCN breeding season. The process involves taking water samples which are then analysed for

¹¹ Habitat Suitability Index score is an assessment of the potential for a waterbody to support great crested newts.

- DNA indicative of GCN. Should any of these water bodies return as positive then further presence/absence survey will be required.
- xii Alternatively, a Leicestershire District Level License could be obtained prior to planning to facilitate the Scheme. This would require an impact assessment and conservation payment certificated (IACPC) obtained from Natural England, this will identify compensation costs.
- xiii Depending upon the route chosen appropriate mitigation measures would be written into a CEMP.

2.9 Common Species of Reptile

- i 'Common species of reptile' refers to common lizard, slow worm, adder and grass snake. The Site is located outside of the known range of smooth snake and sand lizard and these species are not considered in this report.

2.9.2 Desk Study

- ii There are eight recent records of grass snake within the Study Area. The closest / most relevant of these records is associated with the Ashby de la Zouch Canal which is approximately 0.3km from the Site boundary.

2.9.3 Field Survey

- iii The grassland habitat was maintained at a short sward height and was therefore deemed unsuitable to support reptiles. However, the hedgerows, scrub and woodland habitats are of value to foraging, commuting and refuge seeking reptiles.
- iv Brash and rubble piles were noted on-site these may provide opportunities for hibernating reptiles.

2.9.4 Constraints and Recommendations

- v The grassland on-site was regularly managed and short mown, it is recommended this management regime is maintained prior to works to avoid this habitat becoming suitable for reptiles. Should the grassland be left unmanaged and become more suitable for reptiles then further surveys may be required.
- vi It is anticipated that works will not result in the large-scale loss or fragmentation of high suitability habitat for reptiles and amphibians, with the majority of the suitable habitat retained in current proposals. However, there is a risk of mortality/injury to individual reptiles present on Site at the time of clearance or construction. A precautionary method of works for vegetation or suitable hibernacula clearance should be outlined within a CEMP, this will be informed by outcome of the GCN surveys or licence.

2.10 Birds

2.10.1 Desk Study

- i There are recent records for 117 notable¹² bird species within the Study Area. These include 2 species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), 6 Species of Principal Importance (SPI), 5 species on the Conservation Concern 5 (BoCC5) Red list (Stanbury, 2021) and 1 species on the BoCC5 Amber list. The records also included 1 species of bird that are priority species in Leicestershire and

¹² Notable bird species are taken as those listed: on Annex I of the EC Birds Directive (2009/147/EC); on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England listed in Section 41 of the Natural Environment and Rural Communities Act 2006; as Red or Amber in the Birds of Conservation Concern (BoCC) 4 (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708-746); bird species or groups listed under the Leicestershire and Rutland BAP.

Rutland, this was for Bullfinch. Other species included skylark, little ringed plover, yellowhammer, spotted flycatcher, house sparrow and lapwing. A barn owl (WCA1) record was returned within the desk study; however, this was 0.8km south east of the Site.

- ii The off-site ditch (D7) located 40m from the Site Boundary may provide opportunities for kingfisher, the Site lies within the zone of influence of this ditch and there is a risk works in the southern boundary of the Site may disturb nesting kingfisher.

2.10.2 Field Survey

- iii The woodland edge may provide opportunities for roosting and nesting barn owls.
- iv Woodland, scrub, hedgerows, pond, cropland and to a lesser extent grassland provide potentially valuable resources to foraging and nesting bird species. Given the Sites location within an agricultural but suburban setting it is likely to attract a range of common garden and farmland birds.

2.10.3 Constraints and Recommendations

- v A scoping survey for barn owl along the woodland edge is recommended. These can be conducted any time of year, preferably in winter when the vegetation is at its lowest.
- vi Due to the proximity of D7 there is risk of disturbing nesting kingfisher, consequently, works within 10m of the Sites southern boundary should avoid the nesting bird season (1st March to 31st August).
- vii Further breeding bird surveys are considered disproportionate. Although Birds of Conservation Concern may utilise the habitats on-site, any vegetation clearance is considered unlikely to impact more than one or two pairs of any given species.
- viii Where possible, tree felling, pruning and vegetation clearance will be minimised and undertaken outside the core bird nesting season (1st March to 31st August), though it should be noted that variation in dates is possible, for example from geographical variations in climate, or due to a particularly mild winter) to avoid damage or destruction of occupied nests or harm to nesting birds. If this cannot be achieved, works within the core bird nesting season will require an inspection of vegetation to be cleared for birds and their occupied nests by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. If any nesting birds are identified during the survey, they will be left in situ for their entire nesting period and alternative approaches to the work proposed. This may include leaving an exclusion zone around the nests to avoid disturbance.

2.11 Terrestrial Invertebrates

2.11.1 Desk Study

- i There is 1 recent record of notable¹³ terrestrial invertebrates within the Study Area. The closest / most relevant of these records is a Cinnabar which is approximately 100m from the Site boundary.

2.11.2 Field Survey

- ii The habitats on Site are generally of limited ecological value being dominated by cropland and short mown grassland. The hedgerows, woodland and trees had greater value for invertebrates, however, are widespread
-

¹³ Notable terrestrial invertebrates are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any invertebrate listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); any invertebrate listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); any invertebrate listed in the IUCN Invertebrate Red Data Book (1991); and any invertebrate listed under a Leicestershire and Rutland BAP.

within the local landscape and likely to be largely retained. Therefore, invertebrates are not anticipated to pose a constraint upon the development and are scoped out of further consideration.

2.11.3 Constraints and Recommendations

- iii No further survey work or mitigation is considered proportionate of current proposals.

2.12 Aquatic Invertebrates (including White-clawed Crayfish)

2.12.1 Desk Study

- i There are no recent records of notable¹⁴ aquatic invertebrates within the Study Area. However, there are recent records of signal crayfish approximately 0.6km from the Site boundary within the Ashby de la Zouch canal. This species aggressively outcompetes the native species and is a carrier of crayfish plague (*Aphanomyces astaci*). Whilst the American signal crayfish is unimpacted by this, the native, white-clawed crayfish are highly susceptible to it and suffer extensive mortalities as a result. In consideration of this, it is considered highly likely that white clawed crayfish are absent from the area or in a state of serious decline.

2.12.2 Field Survey

- ii On-site ditches were found to contain some standing water and were only wet in places; however, these are likely dry during warmer months and only inundated after a period of heavy rainfall. These were considered suboptimal for white clawed crayfish.

2.12.3 Constraints and Recommendations

- iii No further survey work or mitigation is considered proportionate for Phase 1 of proposals.

2.13 Other Notable Species

2.13.1 Desk Study

- i There are 20 recent records of other notable species¹⁵ within the Study Area, including common toad and European hedgehog. The closest / most relevant of these records for these species are associated with habitats adjacent to the nearby boating lake which is approximately 0.2km from the Site boundary.

2.13.2 Field Survey

- ii The woodland, grassland, cropland, hedgerows, pond and scrub habitats may provide opportunities for foraging, commuting and refugee seeking hedgehogs, common toad and other notable species.

2.13.3 Constraints and Recommendations

- iii Due to local records and the suitability of habitats on-site, precautionary methods of works in line with those recommended for badger should be adhered to during the construction phase due to the transient nature of these species.

¹⁴ Notable aquatic invertebrates are taken as principal species for the conservation of biodiversity under Section 41 of the Natural Environment and Rural Communities Act 2006; any invertebrate listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); any invertebrate listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); any invertebrate listed in the IUCN Invertebrate Red Data Book (1991); and any invertebrate listed under a Leicestershire and Rutland BAP.

¹⁵ Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any species listed in an IUCN Red Data Book; and any other species listed under the Leicestershire and Rutland BAP that are not referred to in previous sections of the report.

3 OPPORTUNITIES FOR ENHANCEMENTS

- i This section highlights opportunities for providing ecological enhancements, based on the current Scheme details. These are high level opportunities and would need to be developed in greater detail once further surveys have been completed and the Scheme proposals, such as detailed areas of habitat loss are confirmed.

3.1 Landscaping Recommendation

- i Current proposals indicate the following habitats will be created wildflower meadow and pond, other planting is also proposed, including trees, scrub, and amenity grassland. The following recommendations are made regarding this landscaping.
- Wildflower meadow planting – the area of proposed wildflower meadow can be sown with a grass & wildflower meadow mix such as N5 Long Season Meadow Mixture which can be used on a variety of soil types and provides flowers throughout the season April to mid-September.
 - Species rich grassland planting – areas of amenity managed grassland can be sown with a flowering lawn mix containing slow growing grasses and wildflowers that respond well to regular short mowing, such as Naturescape's N14 Mixture.
 - Tree planting – native species could be planted across the Site and would greatly enhance its biodiversity value.
 - Native scrub planting – a mix of native species could be planted, which could enhance the species diversity and provide valuable habitat for a range of fauna.
 - Pond(s) – creation of wetland areas on the Site would increase the biodiversity value and be a valuable provision for a range of fauna.

3.2 Other Enhancements

- i The following enhancements could be delivered for biodiversity as part of the Scheme, that don't contribute towards the calculation of biodiversity net gain but can still deliver significant improvements for biodiversity:
- Bat boxes, such as the Vivara woodstone box providing a long-term solution requiring limited replacement unlike wooden boxes which need regular replacement as a result of weathering.
 - Bird boxes, such as the Schwegler 1B nest box, providing a long-term nest box solution which requires limited replacement unlike wooden boxes which need regular replacement as a result of weathering.
 - Herptile hibernacula, i.e., log piles, rocks, and/or deadwood under dense ground cover.
 - Insect refugia, aka, 'hotels' for example the National Trust Apex Insect House, which would provide a variety of niches for a diverse spectrum of invertebrates to inhabit.
 - Hedgehog nest boxes, such as those constructed of wood available from NHBS.
 - Any landscape planting associated with the Scheme should consider the use of native shrub species and also species such as lavender which provide important sources for pollinating species. The Royal Horticultural Society provide online resources to identify suitable plants for garden areas that are aesthetically pleasing but of significant value to local pollinators (www.rhs.org.uk/plantsforpollinators).

4 CONCLUSION

- i This PEAR is based on a desk study and ecological surveys undertaken 15/11/23, and to assess the ecological constraints to the Scheme and to provide advice in respect of Scheme design, site layout and / or site investigation.
- ii The majority of the habitats valuable to fauna are present on the peripheries of the Site, these include woodland, scrub, hedgerows and the pond. These habitats are to be retained in current proposals and the southern section of the Site is to be enhanced which will provide a green buffer between existing habitats and the development.
- iii The following further surveys, summarised in Table 5, are recommended to support pre-planning application

Table 5: Summary of Recommendations

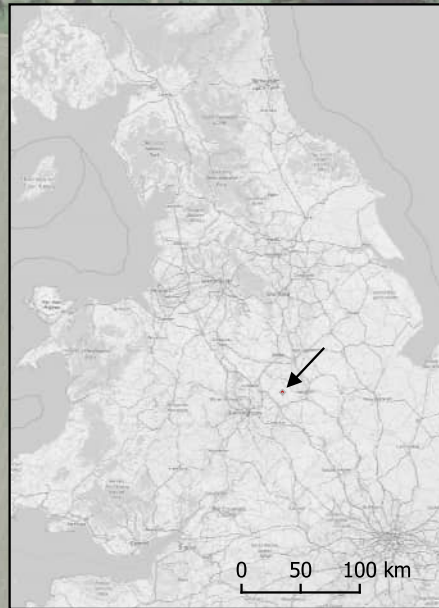
Ecological Feature	Recommendation	Timing
Badger	Badger walkover of the Site and suitable habitats within 30m of the boundary.	Within 6 months of works commencing.
Bats	A Ground Level Tree Assessment (GLTA) will be required for any trees directly or indirectly impacted by the Scheme. Additional surveys may be require depending upon GLTA results.	GLTA survey- anytime of year ideally winter.
Otter	Two otter surveys spaced at least one month apart. Areas to survey include D7 and suitable habitat within 100m of the Site i.e. woodland.	Any time of year, though the period of October – March is considered sub-optimal.
Great Crested Newt	Environmental DNA surveys are recommended for P1 unless the District Level Licence route is chosen.	eDNA conducted mid April- June (inclusive)
Birds	Scoping survey for Barn Owl to assess woodland edge habitats.	Can be conducted any time of year, preferably in winter.

4.2 Re-Survey of Site

- i Due to the mobility of animals and the potential for colonisation of the Site, it is recommended that an updated ecological survey be undertaken prior to the redevelopment of this Site should this not occur within 18 months of the date of the field survey.

5 FIGURES

Figure 1: Site Location and Context Plan



RammSanderson		
Title: Site Context Plan		
Project: Bosworth Lakeside Lodges		
Client: Bosworth Lakeside Lodges Ltd		
Date: 13/11/2023	Fig:	Author: LG
A4 Scale: 1:2250	ID: RSE_7615_STC_1123_V1R1	

Figure 2: Waterbody Plan



Key

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



Title: Waterbody Plan		
Project: Bosworth Lakeside Lodges		
Client: Bosworth Lakeside Lodges Ltd		
Date: 26/01/2024	Fig:	Author: LG
A4 Scale: 1:7250	ID: RSE_7615_WBY_0124_V1R1	

Figure 3: UK Habs Habitat Plan



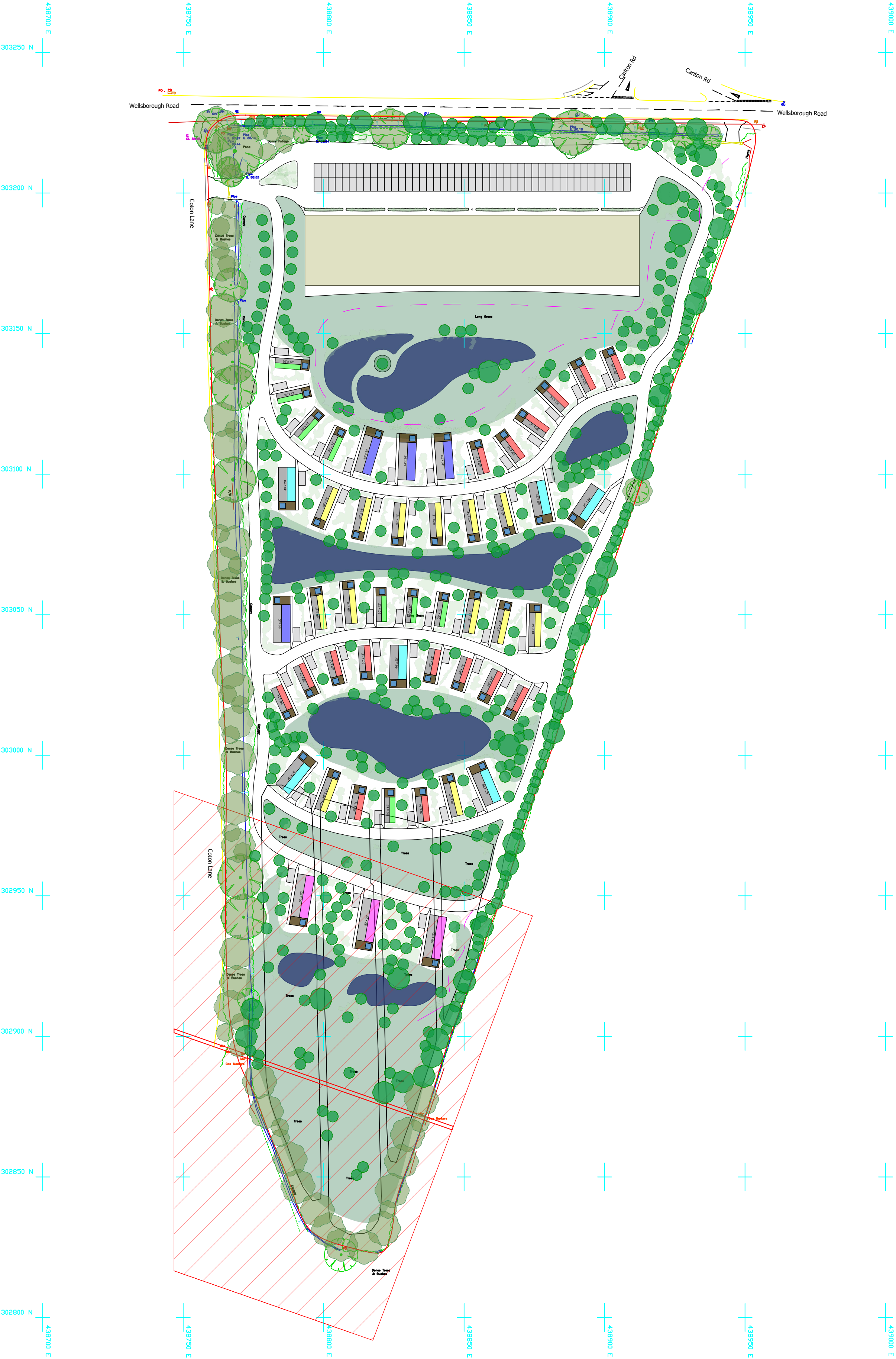
- Key**
- Boundary
 - h3d: Bramble scrub
 - h3h: Mixed scrub
 - g4: Modified grassland
 - c1d: Non cereal crops
 - w1g: Other woodland; broadleaved
 - r1g: Other standing water
 - h2a5: Species rich native hedgerow
 - ~50 Ditches
 - Target Notes
TN1: Japanese knotweed

 RammSanderson		
Title: UKHabs Habitat		
Project: Bosworth Lakeside Lodges		
Client: Bosworth Lakeside Lodges Ltd		
Date: 26/01/2024	Fig:	Author: LG
A4 Scale: 1:2250	ID: RSE_7615_UKH_0124_V1R1	

Figure 4: Client Proposals

Total Lodges Shown: 50

- 30' x 14' Qty: 16
- 40' x 14' Qty: 13
- 30' x 12' Qty: 8
- 40' x 20' Qty: 6
- 44' x 20' Qty: 4
- 50' x 20' Qty: 3



Proposed Site Layout

DO NOT CONSTRUCT FROM THIS DRAWING
Responsibility Is Not Accepted For Errors Made By
Others In Scaling From This Drawing. All Construction
Information Must Be Taken From Figured Dimensions
Only. All Dimensions And Levels Must Be Checked On
Site And Any Discrepancies Between Drawings Must Be
Reported To Lloyd Harden Design Ltd.
THESE DRAWINGS ARE FOR CONCEPT USE ONLY.

CDM Regulations

HAZARDS:	DATE:	MITIGATED:	RISK ASSESSMENT:

REV:	DATE:	NOTES:
A	07.06.2023	RECREATION AREAS ADDED

Legend

EXISTING TREE CANOPY (INDICATIVE)

NEW TREE LOCATION

LOW LEVEL PLANTING

LAKE / POND

MANAGED GRASS AREA

PARKING SPACE

DECKING WITH HOT TUB

GAS LINE EXCLUSION AREA

HUB BUILDING (119 x 25m, 32000 ft²)

FOOTPATH

010m20m30m40m50m

1:1000

CLIENT: Lakeside Lodges

PROJECT: Proposed Holiday Park

DRAWN BY: TD	MANAGERS CHECK: -	DIRECTORS CHECK: LKH
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CONCEPT

DRAWING TITLE: Proposed Site Layout

DRAWING NUMBER: 002

SCALE @A1: 1:1000	DATE: 18.05.23	REVISION: A
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APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY

The UK is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation. EU legislation which applied directly or indirectly to the UK before 11.00 p.m. on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.

The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant and are now referred to as The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (the 2019 Regulations).

Designated Sites

Sites of Special Scientific Interest

Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to carry out or permit to be carried out any operations likely to damage the Site of Special Scientific Interest (SSSI). These operations are listed in the SSSI notification.

Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 of the Wildlife and Countryside Act 1981 (as amended), before undertaking operations likely to damage a SSSI.

Locally Designated Sites

Local Wildlife Sites are sites with 'substantive nature conservation value'. They are defined areas, identified and selected for their nature conservation value, based on important, distinctive and threatened habitats and species within a region.

They are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.

The LWS selection panel, select all sites that meet the assigned criteria, unlike SSSIs, which for some habitats are a representative sample of sites that meet the national standard. Consequently, many sites of SSSI quality are not designated and instead are selected as LWSs. Consequently, LWSs can be amongst the best sites for biodiversity.

Protected Species

Bats / Otter / Great Crested Newt

These species, known as European Protected Species, are protected under Regulation 43 of the 2017 Regulations as amended by the 2019 Regulations. This makes it an offence to deliberately capture, injure or kill an animal; deliberately disturb an animal; or damage or destroy a breeding site or resting place used by an animal.

Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing. Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Natural England can be obtained to facilitate the works that would otherwise be illegal.

These species are also protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb an animal in such a place.

Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Nesting Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), with some species afforded greater protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the protection from killing or taking that all birds receive, Schedule 1 birds and their young must not be disturbed at the nest.

There are no licensing purposes that explicitly cover development activities affecting wild birds.

Common Species of Reptile (common lizard, slow worm, grass snake and adder)

Common species of reptile are protected against intentional killing and injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). There is no requirement for a licence where development works affect common species of reptiles. Instead, Natural England (English Nature, 2004) advise that where reptiles are present, they should be protected from any harm that might arise during the development works through appropriate mitigation.

Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992 (as amended). This makes it an offence to wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett.

It is not illegal to carry out disturbance activities near setts that are not occupied, i.e. those that do not show signs of current use.

Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England. Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process.

When assessing the requirement for a licence in respect of development, Natural England (Natural England, 2009) state that badgers are relatively tolerant of moderate levels of noise and activity around their setts, and that a low or moderate level of apparent disturbing activity at or near to badger setts does not necessarily disturb the badgers occupying those setts.

Licences are normally not granted from December to June inclusive (the badger breeding season) because dependent cubs may be present within setts.

Species and Habitats of Principal Importance for the Conservation of Biodiversity

Section 40 of the Natural Environment & Rural Communities Act (NERC) 2006 sets out the duty for public authorities to conserve biodiversity in England.

Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretary of State for England, in consultation with Natural England, are referred to in Section 41 of the NERC Act for England. The list, known as the 'England Biodiversity List', of habitats and species can be found on the Natural England web site.

The 'England Biodiversity List' is used as a guide for decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 to have regard to the

conservation of biodiversity in England when carrying out their normal functions. The habitats and species on the List, are material considerations of planning, where present on an application site.

Hedgerows

Under The Hedgerow Regulations, 1997, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. In general, permission will be required before removing hedges that are at least 20 metres in length, over 30 years old and contain certain species of plant. The local planning authority will assess the importance of the hedgerow using criteria set out in the regulations.

Non-native Invasive Plant Species

Under the Wildlife and Countryside Act, 1981 (as amended), it is an offence to plant or otherwise cause these species to grow in the wild.

Any contaminated soil or plant material is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990.

Planning Policy

National Planning Policy Framework, 2023

The National Planning Policy Framework (NPPF) (Department of Communities & Local Government, 2023) sets out the Governments planning policies for England and how these are expected to be applied by Local Authorities within their Local Development Frameworks (LDF).

Regarding the NPPF, the most pertinent paragraphs are:

8.c) “to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy”

174.d) “minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”

179.b) “promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

180.a) “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.”

180.c) “development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists.”

6.1 Local Planning Policy

- i The Hinckley & Bosworth Borough Council Local Development Framework Core Strategy was adopted in 2009.
- ii This document has no specific policies pertaining to biodiversity. However, objective 9 is to ‘preserve and enhance natural habitats and biodiversity’. Additionally, Spatial objective 10: Natural Environment and Cultural Assets is as follows: “to deliver a linked network of green infrastructure, enhancing and protecting

the borough's distinctive landscapes, woodlands, geology, archaeological heritage, and biodiversity and encourage its understanding appreciation, maintenance and development."

6.2 Local Biodiversity Action Plans

- i. The Leicester, Leicestershire and Rutland Biodiversity Action Plan (2016 – 2026) includes action plans for 19 habitat types and 16 species or species-groups.
- ii. Habitat types include woodlands, hedgerows and trees, wetlands and waterbodies, grasslands, and urban habitats such as roadside verges and built structures.
- iii. Species include birds such as barn owl and nightingale; bats; invertebrates such as black hairstreak and white clawed crayfish; plants such as black poplar; and terrestrial mammals, such as otter.

APPENDIX 2: METHODOLOGY

Desk Study

Background Records Search

The preliminary ecological assessment includes a desk study to obtain background records relevant to a Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.

The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (Zol) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.

On 23/01/2024 the Leicestershire & Rutland Environmental Records Centre was contacted to obtain the following ecological data:

- Records of non-statutory designated sites (Local Wildlife Site (LWS) within 1 km of the Site boundary;
- Records of legally protected and notable species (fauna and flora) within 1 km of the Site boundary, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List¹⁶.

The Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk) website was reviewed for the following information:

- Designated sites of nature conservation importance (statutory sites only) within 1km of the Site. This was extended to 1 km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and,
- Notable habitats within 1 km of the Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List.

Great Crested Newt Pond Search

Ordnance Survey maps and the Where's the *Path* website (<https://wtp2.appspot.com/wheresthepath.htm>) have been used to identify the presence of water bodies within 500 m of the Site boundary, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts. This species can use suitable terrestrial habitat up to 500 m from a breeding pond (English Nature, 2001), though there is a notable decrease in great crested newt abundance beyond 250 m from a breeding pond (Natural England, 2004).

Field Survey

The preliminary ecological assessment includes a walkover survey of the Survey Area (all land within the Site) broadly following the UK Habs habitat survey methodology (UK Habs, 2023) survey method records information on habitat types and is 'extended' to record any evidence of and potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).

During the walkover survey, the following protected or notable species are considered:

¹⁶ Section 40 of the Natural Environment & Rural Communities Act 2006 requires that very public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

- **Badger:** the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).
- **Bats:** the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines) and categorising the potential of those trees or structures to support roosting bats (negligible to high, or confirmed roost), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2016) guidance.
- **Otter:** the survey involves assessing the potential of watercourses and water bodies, and adjacent terrestrial habitat within the Survey Area to support otter, following RSPB (Ward, 1994) and (Chanin, 2003) guidance;
- **Water vole:** the survey involves assessing the potential of watercourses and water bodies within the Survey Area to support water vole, following The Mammal Society (Dean, 2016) guidance;
- **Birds:** the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;
- **Great crested newt:** the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;
- **Reptiles:** the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC (Joint Nature Conservation Committee, 2003) guidance;
- **Notable species of invertebrate:** the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including white-clawed crayfish);
- **Protected or Notable species of plants:** the survey involves recording protected or notable plant species;
- **Other notable species:** the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;
- **Non-native invasive plant species:** the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act, 1981 (as amended)) and subject to strict legal control.

Great Crested Newt Habitat Suitability Assessment

Waterbodies on-site were evaluated against the great crested newt HSI criteria (R. S. Oldham, 2000). The HSI provides a measure of the suitability of a water body to support great crested newt by assigning an overall score of between 0 and 1, which is based on ten key criteria as follows:

- SI1 Geographic location
- SI2 Pond area
- SI3 Pond drying
- SI4 Water quality
- SI5 Shade
- SI6 Presence of water-fowl
- SI7 Presence of fish
- SI8 Number of local ponds
- SI9 Terrestrial habitat quality
- SI10 Plant coverage

In general, ponds with a higher score are more likely to support great crested newt than those with lower score. Suitability for great crested newt is determined in accordance with the scale outlined in the Table below.

Table 6: HSI Scoring Criteria

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

Limitations

The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

An ecological survey represents a 'snapshot' in time of the ecological condition of a Site. The ecological character of a Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.