

Land off Manifold Drive, Cheadle

Preliminary Ecological Appraisal
Report (PEAR)



Client:

CCP Developments (Stone)
Limited

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EXECUTIVE SUMMARY

- i RammSanderson Ecology Ltd were commissioned by CCP Developments (Stone) Limited to undertake a Preliminary Ecological Appraisal to assess the potential ecological constraints to the proposed planning application for a residential development (hereafter referred to as the Scheme), located to the southeast of Manifold Drive, central O.S. grid reference: SK 01540 42114 (see Figure 1). The land within the Scheme Boundary (hereafter referred to as the Site) is approximately 2.1 ha and currently comprises a field used for grazing, including boundary hedgerows and broadleaved trees. The Site is bordered by residential development to the northwest and northeast.

Table 1: Executive Summary

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
Designated Sites	The Site is located 0.3km SE from Rakeway House Farm, 0.4km NW from Cecilly Brook and 0.4km SE from Freehay LWS. No impacts are anticipated due to the distance between the Site and Rakeway House Farm (South of) and Freehay Local Wildlife Site, as well as urban buffers between Cecilly Brook Local Nature Reserve and the Site.	No
Habitats	Native hedgerows and broadleaved trees and present within the surveyed area. Under current proposals all trees are to be retained, although there will be some localised loss of sections of hedgerow to facilitate proposals. Proposed masterplan includes additional hedgerow and tree planting within the Scheme.	Adhere to root protection areas in accordance with BS 5837:2012 for retained trees and hedgerow during construction.
Badger	No evidence of badger was identified within the Site during the survey. The modified grassland and hedgerows may offer some scope for foraging badgers and as such, badgers may pass through the Site.	It is possible that badgers are entering the Site to forage and traverse and may be impacted during the construction period. As such, precautionary measures are recommended with regard to badgers, which could be detailed in a Precautionary Method of Works (PMW) and/or Construction and Ecology Management Plan (CEMP).
Bats	A full Ground Level Tree Assessment (GLTA) was beyond the remit of this preliminary survey, although several mature trees were incidentally noted to have features of bat roosting potential. It is currently understood that all trees are to be retained within proposals, however in the event that proposals change and tree removal/pruning works are required, further GLTA will required.	GLTA should be undertaken in the event proposals are amended resulting in impacts to onsite trees. A CEMP is recommended in order to implement a sensitive lighting bat strategy.

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
	The Site was considered to be of moderate suitability for foraging and commuting bats in the tree lines and hedgerows.	
Hazel Dormouse	The distribution of hazel dormouse in the UK is restricted to Cumbria, the South and the Midlands. No records of hazel dormouse were returned and no field signs of were found during the site walkover.	No. Due to the lack of local records, it is deemed reasonably unlikely that hazel dormouse will be present on site. As such hazel dormouse do not pose any constraints to the work and can be scoped out.
Otter and Water Vole	No features on Site or within Zone of Influence of value for otter and water vole.	No. Due to the lack of local records or suitable habitat, it is deemed reasonably unlikely that otter or water vole will be present on site. As such otter and water vole do not pose any constraints to the work and can be scoped out.
Great Crested Newt	Two ponds (P1 and P2), easterly adjacent to the surveyed land have potential for populations of great crested newts the (Habitat Suitability Index) HSI score was 0.75 (good) and 0.55 (below average), respectively. Further eDNA surveys were therefore conducted on these ponds, which returned a negative result.	The negative eDNA results indicate that GCN are likely absent from the Site, as such, no further mitigation or licences are required
Reptiles	There is limited habitat for reptiles on Site in the as the majority of the Site comprises short-sward grazed grassland. The hedgerows and tree roots potentially provide some value, albeit limited.	It is possible that reptiles are entering the Site to forage and traverse and may be impacted during the construction period. As such, precautionary measures are recommended with regard to reptiles, which could be detailed in a Precautionary Method of Works (PMW) and/or Construction and Ecology Management Plan (CEMP).
Birds	There is limited suitability for breeding birds within the Site. The grassland habitat was continuously grazed by sheep and all trees onsite are currently to be retained within proposals. There will be some hedgerow loss in some areas but additional proposed following works.	Any vegetation clearance required to be completed outside of the breeding bird season where possible. Where this isn't possible works should be immediately preceded by a nesting bird check conducted by a suitably experienced ecologist. Should active nests be identified, a suitable buffer should be maintained until

Ecological Feature	Potential to be affected by the Scheme	Further Surveys, Assessment or Mitigation Recommended?
		the ecologist is satisfied that all chicks have fledged.
Terrestrial Invertebrates	Habitats within the Site, such as the hedgerows, scrub and grassland areas, may provide suitable habitat for a variety of common invertebrate species only.	No recommendations or mitigation is required due to the limited value for terrestrial invertebrates regarding the current habitats on the Site.
Aquatic Invertebrates	There were no suitable habitats for notable aquatic invertebrates within the Site.	No recommendations or mitigation is required due to the limited value for aquatic invertebrates regarding the current habitats on the Site.
Other Notable Species	There are suitable habitats on site for hedgehogs including hedgerows, grassland and scrub.	It is possible that other notable species, such as hedgehog, are entering the Site to forage and traverse and may be impacted during the construction period. As such, precautionary measures are recommended with regard to other notable species, which could be detailed in a Precautionary Method of Works (PMW) and/or Construction and Ecology Management Plan (CEMP).

- ii In respect of mandatory Biodiversity Net Gain, post development, the Scheme would result in the following:
- A net loss of 1.42 Habitats Units. This equates to 24.67% net biodiversity loss.
 - A net gain of 2.46 Hedgerow Units. This equates to an 80.79% net biodiversity gain.
- iii With the Scheme resulting in a net loss in biodiversity units for habitats, compensation/enhancement measures will be necessary to achieve a 10% net gain which is mandated under the Environment Act 2021.
- iv As the Scheme is to result in a net loss in area habitats on the Site itself, additional compensation/enhancement measures will be necessary to achieve the mandated 10% net gain. Due to the limited scope to obtain further biodiversity units on the Site itself, it is proposed that some offsetting will be carried out on adjacent land within the client's ownership which will be conducted following determination of the planning application.

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1 INTRODUCTION

1.1 Terms of Reference

- i RammSanderson Ecology Ltd (RS) were commissioned by CCP Developments (Stone) Limited to undertake a Preliminary Ecological Appraisal (PEA) to assess the potential ecological constraints to the proposed planning application for a residential development (hereafter referred to as the Scheme), located to the southeast of Manifold Drive. The Site currently comprises a field used for sheep grazing, including boundary hedgerows and scattered trees. The Site is bordered by residential development to the northwest and northeast. 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 CCP Developments (Stone) Limited 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 includes a proposed housing development of 50 dwellings to be built across the Site. The Scheme has been designed to retain all trees onsite, as well as the majority of hedgerows, although some minor sections are to be lost. Proposed habitats within the Scheme comprise pond creation with associated marginal aquatic planting, native tree planting, hedgerow planting, grassland meadow habitat creation with suitable wildflower meadow species, as well as native bulb planting.

1.3 The Site

- i The Site is located on Manifold Drive, Cheadle, Staffordshire at Ordnance Survey national grid reference SK 01540 42114 and is approximately 2.1 ha in size.
- ii The Site comprises a field used for sheep grazing, including boundary hedgerows and scattered trees. The Site is bounded by further fields for crop and animal grazing to the north, east and south, and residential development to the northwest and northeast. The wider landscape consists of the town of Cheadle to the northwest, and continuous pasture and arable land to the northeast, east and south with B roads running throughout.

1.4 Scope of the Preliminary Ecological Appraisal

- i This PEAR presents ecological information obtained during the following:

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

- A desk-study undertaken in April 2025 to obtain records of designated sites, notable habitats² and protected and notable species³ up to 1 km of the Site (the area covered by the desk study is hereafter referred to as the Study Area); and,
 - A walkover survey of accessible land within the Site (the area covered by the survey is hereafter referred to as the Survey Area) on 26th March 2025.
- 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.

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 Staffordshire 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 Staffordshire BAP.

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 undertaken by Ewa Tomalak on 26th March 2025, whom has been a professional ecologist for eight years and has the required competencies (Qualifying member of Chartered Institute of Ecology and Environmental Management) to undertake this type of survey.

2.2 Limitations to the Assessment

- i The walkover survey was completed during the period of October to April, which is generally considered a suboptimal time of year for woodland, scrub and tree habitats, rather than the survey being completed during the spring or summer, and it is likely 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 Table 2 summarises the designated sites situated within the Study Area.

Table 2: Designated Sites within Study Area

Site Name	Designation	Location ⁵	Brief Description
Cecilly Brook	Local Nature Reserve(LNR) ⁶	0.4km NW	Site is an important habitat for water voles, featuring ancient meadows rich in flora and surrounded by diverse hedges and nectar sources for invertebrates.
Freehay	Local Wildlife site (LWS)	0.4km SE	The site comprises a mosaic of acid-grassland and heathland habitats, with Silver Birch, Oak, and Rowan trees on the lower slopes. The upper slopes exhibit the highest diversity.
Rakeway House Farm (South of)	LWS	0.3km SE	A variety of grassland habitats, including unimproved and semi-improved neutral grassland, as well as unimproved acid grassland to the east. Additionally, there is a pond with a marginal fringe predominantly composed of Yellow Flag.

2.3.2 Constraints and Recommendations

- ii No designated sites are anticipated to be impacted, due to the distance between the Site and Rakeway House Farm (South of) and Freehay LWSs, as well as, urban buffers between Cecilly Brook LNR and the Site.

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 LNR – Local Nature Reserve

2.4 Habitats

2.4.1 Desk Study

- i Table 3 summarises the records of notable habitats and protected or notable flora⁷ (including veteran trees⁸) within the Study Area.

Table 3: Notable Habitats and Protected and Notable Flora within Study Area

Habitat/ Flora Feature	Reason for Conservation Interest	Location ⁹
Rakeway Wood	Ancient Woodland	0.6km S 0.6km S
Open Mosaic Habitat	Can be extremely diverse and can support a rich assemblage of invertebrates	0.9km SW
Traditional Orchards	Priority Habitat Magic	0.1km S
Deciduous Woodland	Priority Habitat Magic	0.4km NE An additional 19 parcels were located between East and West
Lowland Heathland	Priority Habitat, Local Biodiversity Action Plan Habitat	0.5km SE
No main habitat but additional habitat exists	Priority Habitat Magic Priority Habitat Magic	1km SW 1km SW
Good quality semi-improved grassland	Priority Habitat Magic	0.7km SW 0.46km SW
Himalayan balsam	Schedule 9 - invasive species found in the desk study	0.5 NW 2 separate records
Rhododendron	Schedule 9 - invasive species found in the desk study	0.7km SE 2 separate records

2.4.2 Field Survey

- ii Summary descriptions of the habitats within the Survey Area are provided below in Table 4 .
- iii Habitat types detailed are listed in order of the UKHab Survey Handbook (UKHab Ltd, 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.

⁷ For this assessment 'flora' includes vascular and non-vascular plants, fungi and lichens.

⁸ 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."

⁹ 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 4: Habitats within Survey Area

Habitat	Description	Area (m²)/ Length (m)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
g4 Modified grassland Secondary code: 10 Scattered scrub	This sheep grazed habitat was located throughout the Site and was very species-poor. The short sward is comprised of dominant perennial rye-grass and occasional Yorkshire fog. The forbs were comprised of locally abundant creeping buttercup and white clover, occasional ribwort plantain and rarely abundant creeping thistle. There was one isolated parcel of hawthorn scrub present within the east of the Site.	21,183.2	99.7	The modified grasslands on Site are generally all very poor but will have some ecological value due to the flowering species present. These will provide a food source for invertebrates. It is anticipated that most of this habitat will be removed to facilitate the Scheme. It is anticipated that this parcel will be lost under current proposals.	 

Habitat	Description	Area (m²)/ Length (m)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
g4 Modified Grassland Secondary code: 200 Individual trees	Individual trees were present towards the northern and western boundaries of the Site. This habitat was comprised of young and semi-mature willow trees.	138	-	Ecologically valuable to a range of species including mammals, herptiles, invertebrates, and nesting birds. Anticipated to be retained.	

h2a5	A species-rich native hedgerow was present within the Site.	83	-	Highly ecologically valuable to a range of species including mammals, herptiles, invertebrates, and nesting birds.
Species-rich				
Native hedgerow	A hedgerow (H4) was located within the central and eastern extents of the Site. The hedgerow was comprised of frequent elder, hawthorn, hazel, ash and pedunculate oak. A mature crack willow and a hedge bank was present within this hedge.			It is anticipated that all hedgerows will be retained and enhanced.
Secondary code:				
11				
Hedgerow with trees				
111				
Hedge bank				



Habitat	Description	Area (m ²)/ Length (m)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
h2a6 Other native hedgerow Secondary code: 11 Hedgerow with trees	Four native hedgerows were present and located within the central extent and the southern and northeastern boundary of the Site. An overgrown unmanaged hedgerow (H1) was located on the southern boundary of the Site and was comprised of dominant holly, abundant hawthorn plus rarely abundant blackthorn and oak species. Trees present within this hedgerow were five mature oaks. The central hedgerow (H3) was comprised of dominant hawthorn, abundant holly, frequent elder and rarely abundant oak species. A hedgerow (H2) was located towards the southwestern extent of the Site and was comprised of dominant holly and frequent hawthorn. Three mature pedunculate oak trees were present within this hedgerow. The northeastern hedgerow (H5) was comprised of frequent hawthorn and holly plus rarely abundant oak species.	278	-	Highly ecologically valuable to a range of species including mammals, herptiles, invertebrates, and nesting birds. It is anticipated that all hedgerows will be retained and enhanced.	 

Habitat	Description	Area (m ²)/ Length (m)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
r2b Other rivers and streams Secondary code: 50 Ditch	Two ditches (D1 and D2) were present within the central extent the Site. D1 was located adjacent to hedgerow (H4) and was partially dry, with no emergent or marginal vegetation. D2 was located adjacent to hedgerow (H3) and was partially dry. It was 0.5-1m wide, with no emergent or marginal vegetation.	91	-	Ecologically valuable to a range of species including mammals, herptiles and invertebrates, although less valuable as these are mostly dry. Ephemeral ditches to be lost to facilitate works. Dry at the time of survey and likely only inundated at times of heavy rainfall.	

2.4.1 Constraints and Recommendations

- iv Hedgerows are considered a valuable habitat. If sections of hedgerow are to be removed as part of the works, these should, where possible, be replaced on a like-for-like basis to avoid net biodiversity loss and 10% net gain will be required. Hedgerows are also priority habitat under NERC and therefore are considered a material consideration within the planning process.
- v Mitigation measures to protect retained tree habitats should be adhered to in accordance with an Arboriculturist's report, which should contain guidance on protective fencing in line with root protection areas and other such measures in accordance with BS 5837:2012.

2.5 Badger

2.5.1 Desk Study

- i There are no recent records of badger within the Study Area.

2.5.2 Field Survey

- ii No evidence of badger (latrines, snuffle holes, setts) was recorded during the walkover survey. No features on Site were considered suitable to support badger within the Site.
- iii The modified grassland, hedgerows and line of trees may offer some scope for foraging badgers and as such, badgers may pass through the Site.

2.5.3 Constraints and Recommendations

- iv Due to the records identified near by the Site, it is possible that badgers are entering the Site to forage and traverse and may be impacted during the construction period. As such, precautionary measures are recommended with regard to badgers, which could be detailed in a Precautionary Method of Works (PMW) and/or Construction and Ecology Management Plan (CEMP). This will include the covering of excavations, capping off open pipes and storing hazardous materials safely.

2.6 Bats

2.6.1 Desk Study

- i There is one recent record of bats within the Study Area. The closest of these records is associated with common pipistrelle which is approximately 0.84km south-west from the Site boundary.

2.6.2 Field Survey

- ii It was noted whilst on Site that there were mature trees with features suitable for roosting bats. A full GLTA was beyond the remit of this preliminary survey, although several mature trees were incidentally noted to have features of bat roosting potential (see table below).
- iii The Site also had high suitability (Collins 2023), for foraging and commuting bats in the tree lines, hedgerows and scrub habitats. Additionally, more field boundaries adjacent to the site provides connectivity to the wider environment.

iv Table 5 summarises both the evidence of bats being present within the Survey Area, and the potential for features and habitats within the Survey Area to support roosting bats. A full extensive GLTA was beyond the remit of this preliminary survey, although no tree loss is currently anticipated within proposals.

Table 5: Summary of features with potential to support Bats

Feature	Description	Location ¹⁰	Grading	Photographs
Tree T1	A mature pedunculate oak with overgrown ivy was present on the west field boundary towards the south end of the field. The tree was recorded as being associated with a hedgerow and measured approximately 5m in height. No obvious features were observed however the dense, thick ivy had the potential to be concealing any features.	East Site boundary (52.976105, -1.979206)	PRF-i	

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

Feature	Description	Location ¹⁰	Grading	Photographs
Tree T2	Large, mature pedunculate oak was recorded next to T1. This oak measured approximately 4 metres on height and had a large tear featuring on the trunk which had the potential to be suitable to be utilised by bats.	East Site boundary (52.976226, -1.97896)	PRF-i	
Tree T3	On the south Site boundary, featured a large, mature pedunculate oak tree with potential for opportunistic bat. The features present included tears along the tree trunk and dead limbs.	South Site boundary (52.975541, -1.979969)	PRF-i	
Tree T4, T5, T6	Three large, mature pedunculate oak trees were present amongst a hedge line on the southern most boundary of the Site. They all shared similar features, measuring approximately 15 metres in height. The trees were recorded as having possible cavities, although due to the dense ivy cover	South Site boundary (52.975273, -1.979538)	PRF-i	

Feature	Description	Location ¹⁰	Grading	Photographs
	concealing the features, it was hard to fully observe.			

2.6.3 Constraints and Recommendations

Roosting Bats

- v The Scheme has been sensitively designed to retain trees within proposals, and no tree loss is anticipated as a result of works.

A full GLTA was beyond the remit of this preliminary survey, and therefore trees with features of bat roosting potential may be present on site, and as such in the event proposals change and impacts to onsite trees are required (i.e. removed, pruned or subject to significant lighting increases), further GLTA will be required to determine the requirement for further survey work. During the preliminary survey, six trees onsite were incidentally noted to be of PRF-I (T1-T6), and therefore, if proposals change and removal of these trees are required, these should be removed via a soft-felling technique under ecologist supervision.

- vi A GLTA can be completed at any time of year, however, should subsequent emergence surveys or aerial tree assessments be required of the trees, these are seasonally constrained to May to September within the bat active season.

Foraging and Commuting Bats

- vii The Site was considered to have moderate suitability to support foraging and commuting bats, as the trees and hedgerows had good connectivity to the wider landscape, it is unlikely to be severance of habitat connectivity for bats and therefore further bat activity surveys are considered disproportionate.

2.7 Hazel Dormouse

2.7.1 Desk Study

- i There are no recent records of hazel dormouse within the Study Area. This species is distributed nationally within Cumbria, as well as, the South and the Midlands.

2.7.2 Constraints and Recommendations

- ii Due to the lack of local records and the national distribution of this species, it is deemed reasonably unlikely that hazel dormouse will be present on site. As such hazel dormouse do not pose any constraints to the work and can be scoped out.

2.8 Otter and Water Vole

2.8.1 Desk Study

- i There are no recent records of otter within the Study Area.
- ii There is one recent record of water vole within the Study Area. The record is approximately 0.96km north from the Site boundary. There were no suitable waterbodies within the Zone of Influence (ZoI) for either species.

2.8.2 Field Survey

- iii No evidence of otter or water vole were recorded during the walkover survey. No features on Site were considered suitable to support otter or water vole within the Site. The ditches present within the site lacked connectivity, earth banks and bankside vegetation required to sustain a population of water vole particularly. The habitats were also partially dry and are considered likely ephemeral and only inundated in periods of high rainfall.

2.8.3 Constraints and Recommendations

- iv Due to the lack of local records or suitable habitat, it is deemed reasonably unlikely that otter or water vole will be present on site. As such otter and water vole do not pose any constraints to the work and can be scoped out.

2.9 Great Crested Newt

2.9.1 Desk Study

- i There is one recent record of great crested newts within the Study Area. The record is approximately 0.66 km south-east from the Site boundary.
- ii A total of four ponds and four ditches were present within 250m of the Site.
- iii D3 and D4 were scoped out from further consideration as there was a barrier to movement in the form of Rakeway Road and residential development.

2.9.2 Field Survey

- iv On 24th April 2025, eDNA surveys and habitat suitability index (HSI)¹¹ assessments were conducted of the four ponds present within 250m of the Site.
- v Table 6 summarises the findings, highlighting the features that have the potential to support great crested newts, including the results of the HSI assessments.

Table 6: Summary of features with potential to support Great Crested Newt

Feature	Description	Location	HSI	Photograph
Pond (P1)	Located within agricultural land, with moderate water quality however densely covered with crowfoot.	Directly southeast of the Site boundary – a section of the pond falls within the Site.	0.75 Good	
Pond (P2)	Small pond at livery yard, dense vegetation cover, multiple hedgerows adjacent to pond. High number of tadpoles present during the survey.	195m south of the Site boundary.	0.55 Below Average	
Pond (P3)	Pond was dry at time of survey, covered with grass.	225m southeast of the Site boundary.	N/A	
Pond (P4)	Pond was not present, appeared to have been filled in. Covered with grass, nettles, cleavers, broadleaved dock and dandelion.	185m east of the Site boundary.	N/A	

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

Ditch (D1)	Partially dry ditch along hawthorn and holly hedge.	Adjacent to H4.	N/A	
Ditch (D2)	Ditch along hedge partially dry, 0.5-1m wide, running water only in places.	Adjacent to H3.	N/A	

2.9.3 Constraints and Recommendations

- vi D1 and D2 were ephemeral ditches, inundated only during periods of heavy rainfall, so were deemed unsuitable for GCN.
- vii All ponds within 500m the Site were subjected to an HSI assessment and, where possible, an eDNA survey. Pond P1 and P2 held water at the time of the survey, and the HSI score was 0.75 (good) and 0.55 (below average), respectively. Ponds P3 and P4 were found to be dry and therefore unsuitable for breeding GCN, so they did not receive an HSI score.
- viii As ponds P1 and P2 held water, an eDNA survey was conducted. Both ponds returned a negative result.
- ix The negative eDNA results indicate that GCN are likely absent from the Site, as such, no further mitigation or licences are required.

2.10 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.

2.10.2 Desk Study

- ii There are no recent records of common lizard, slow worm, adder and grass snake within the Study Area.

2.10.3 Field Survey

- iii There were suitable habitat for reptiles on Site within the grassland and hedgerow habitats. However, the majority of the Site of limited value dominated by short sward grazed grassland, though the hedgerows offered some suitability.

2.10.4 Constraints and Recommendations

- iv Retention of reptile suitable habitats is recommended. However, the habitats on Site suitable for reptiles are limited in extent, due to the grazed nature of the modified grassland present within the Site, and not unique within the locality, therefore, a loss of habitat is highly unlikely to have a significant impact on any local reptile populations. Further surveys are therefore deemed disproportionate.
- v However, to mitigate the risk of mortality/injury to individual reptiles during the construction phase, a Precautionary Method of Works should be implemented. As reptiles typically hibernate underground or under log or stone piles (hibernacula), they are unlikely to be impacted by vegetation clearance works in winter unless tree stump removal or excavations are required. Where possible, stump removal or excavations should be undertaken in the active reptile season (spring/summer/early autumn). This means the ideal time to dig on site is September and October to avoid impacts to breeding birds and reptiles. Where this is not possible

- an ecologist should be present on site to perform checks immediately prior to works (24hrs).
- vi Vegetation clearance is best timed for autumn/winter to avoid breeding birds (November - February inclusive) and active reptiles. Where this is not possible a check by a suitably experienced ecologist and potentially habitat manipulation using phased cuts may be required.
- vii Where vegetation clearance on the Site is required in spring/summer, the habitats should first be cut to a height of 15-20cm by a hand tool such as brush cutter, progressing at walking pace only. The area should be left for 24-48hrs and then cut to 5cm using the same method, working in the same direction as the previous cut. This will allow any reptiles present to disperse into the wider environment unharmed. In the unlikely event that a reptile is seen during the works they should be allowed to escape unharmed at their own pace. Only a trained ecologist should attempt to move reptiles by hand. If multiple reptiles are encountered, works should cease, and the methodology be re-evaluated.

2.11 Birds

2.11.1 Desk Study

- i There are 96 recent records for eighteen notable¹² bird species within the Study Area. These include three species listed on Annex I of the EC Birds Directive 1994, nine species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), two Species of Principal Importance (SPI), six species on the Conservation Concern 5 (BoCC5) Red list (Stanbury, 2021) and five species on the BoCC5 Amber list. The closest record was of a Sparrowhawk, which was returned 0.18km north west of the Site. The records also include five species of bird that are priority species in Staffordshire listed on the Staffordshire LBAP. These were house sparrow, lapwing, skylark, reed bunting and barn owl.

2.11.2 Field Survey

- ii Habitats on Site such as the trees and scrub habitats have the potential to support common and widespread species of breeding birds. There were no features on Site suitable to support individually notable birds.

2.11.3 Constraints and Recommendations

- iii Where possible, vegetation clearance should be minimised and undertaken outside the core bird nesting season (1st March and 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 breeding birds. If this cannot be achieved, works within the core bird nesting season will require an inspection of vegetation to be cleared for breeding 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.

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 Staffordshire BAP.

2.12 Terrestrial Invertebrates

2.12.1 Desk Study

- i There are no recent records of notable¹³ terrestrial invertebrates within the Study Area.

2.12.2 Field Survey

- ii Habitats within the Site, such as the hedgerows, scrub and grassland areas, may provide suitable habitat for a variety of common invertebrate species only.

2.12.3 Constraints and Recommendations

- iii No recommendations or mitigation is required due to the limited value for terrestrial invertebrates regarding the current habitats on the Site. Should any protected or suspected protected invertebrate species be discovered onsite during the works, then works should cease immediately, an ecologist contacted, and the methodology revised.

2.13 Aquatic Invertebrates (including White-clawed Crayfish)

2.13.1 Desk Study

- i There are no recent records of notable¹⁴ aquatic invertebrates (including white-clawed crayfish) within the Study Area

2.13.2 Field Survey

- ii There were no suitable habitats for notable aquatic invertebrates within the Site.

2.13.3 Constraints and Recommendations

- iii No recommendations or mitigation is required due to the lack of suitability for terrestrial invertebrates regarding the current habitats on the Site. Should any protected or suspected protected invertebrate species be discovered onsite during the works, then works should cease immediately, an ecologist contacted, and the methodology revised.

2.14 Other Notable Species

2.14.1 Desk Study

- i There is one recent record of hedgehog¹⁵ within the Study Area. The record is approximately 0.57km west from the Site boundary.

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 Warwickshire LBAP.

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 the Staffordshire 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 Staffordshire BAP that are not referred to in previous sections of the report.

2.14.2 Field Survey

- ii There are suitable habitats on site for hedgehogs including hedgerows, grassland and scrub.

2.14.3 Constraints and Recommendations

- iii There is a risk that hedgehogs may traverse the Site during the construction period. It is recommended that best practice measures with regard to small mammals are adhered to during the construction phase of the Scheme. These measures are similar to those used for badgers. A precautionary method of works should be adhered to when conducting any vegetation clearance to minimise impact to commuting animals.

3 BIODIVERSITY NET GAIN

3.1.1 Biodiversity Impact Assessment

- i A high-level¹⁶ biodiversity impact assessment (BIA) was undertaken on 16/05/25 based on the current proposal plans for the Scheme. This involved making a comparison between the biodiversity value of habitats present within the Site prior to development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared. The Scheme is required to achieve 10% biodiversity net gain (BNG) under national legislation (see Appendix 1).
- ii The baseline biodiversity value of the Site is as follows:
 - 5.74 habitat biodiversity units.
 - 3.04 hedgerow biodiversity units.
- iii Post development, the Scheme would result in the following:
 - A loss of 1.42 habitat biodiversity units. This equates to an 24.67% net loss.
 - A loss of 2.46 hedgerow biodiversity units. This equates to an 80.79% net gain.
- iv As the Scheme is to result in a net loss in area habitats on the Site itself, additional compensation/enhancement measures will be necessary to achieve the mandated 10% net gain. Due to the limited scope to obtain further biodiversity units on the Site itself, it is proposed that some offsetting will be carried out on adjacent land within the client's ownership will be conducted following determination of the planning application.
- v The methodology for undertaking the assessment is provided in Appendix 2. Full details on the assessment calculations are provided in Appendix 3.

¹⁶ High level refers to the fact that Scheme proposals including landscaping, and any required ecological mitigation are not finalised at this stage of the assessment.

4 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.

4.2 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:
- Provision of bird nest boxes (Schwegler 1B nest box) suitable for a range of common species to be affixed to the retained mature trees on site and to the residential dwellings.
 - Consideration to provision of swift bricks, sparrow and starling boxes to be incorporated into the buildings.
 - Provision of bat boxes to be affixed to the retained mature trees on site. Use of boxes such as the Vivara woodstone box provide a long-term nest box solution requiring limited replacement unlike wooden boxes which need regular replacement as a result of weathering.
 - Consideration to provision of bat boxes could also be given in respects to the new buildings. Use of in-cavity boxes such as Ibstock Enclosed Bat Box C provide a long term nest box solution incorporated into the building.
 - Provision of hedgehog boxes throughout the retained hedge and scrub habitats on site.
 - Installation of hedgehog highways in the residential gardens throughout the site so as not to inhibit connectivity for hedgehogs across the site.
- ii 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).

5 SUMMARY

- i This PEAR is based on a desk study and ecological surveys undertaken April 2025, 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 following further surveys, summarised in Table 7, are recommended to support the planning applications of the Site.

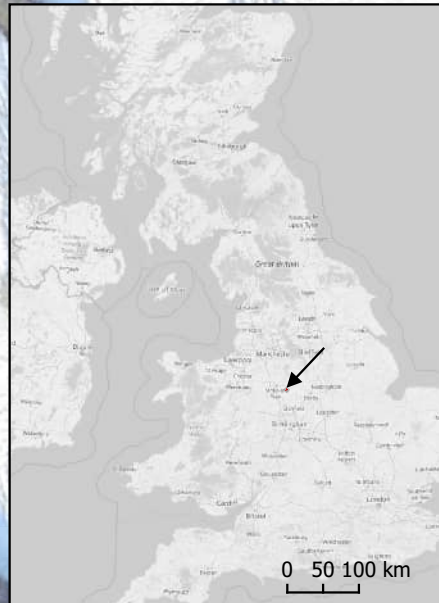
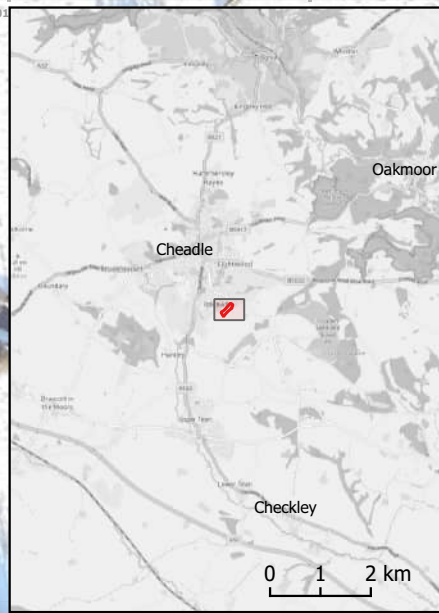
Table 7: Summary of Recommendations

Ecological Feature	Recommendation	Timing
Habitats	Replacement of lost habitats as part of the BNG enhancements.	Post construction
	Some small sections of hedgerows to be removed to facilitate development of the Scheme. Trees present within the Site are proposed to be retained.	Adhere to root protection areas in accordance with BS 5837:2012 for retained trees during construction (as recommended in an Arboriculturists report).
Badger	Precautionary method of works in relation to badgers to be detailed within a CEMP/PMW document.	During the works
Bats	All trees to be retained onsite within current proposals. In the event proposals change, further GLTAs of trees on site to be impacted as a result of works will be required. T1-T6 incidentally noted to be of PRF-I during the initial walkover, and therefore if proposals change and impacts to these trees are required, this should be done utilising a soft felling technique under ecological supervision.	Any time
	Sensitive light strategy to be detailed within a CEMP/PMW document.	During the works
Reptiles	Precautionary method of works in relation to reptiles to be detailed within a CEMP/PMW document.	During the works
Birds	Undertake vegetation clearance outside of bird nesting season where possible.	October to March
	If this isn't possible a pre-works check of vegetation within 24hrs prior to clearance.	Pre-construction
Other Notable Species	Vegetation clearance to be undertaken under a precautionary method of works.	Prior to and during construction phase.
	Precautionary method of works in relation to other notable species to be detailed within a CEMP/PMW document.	During the works
Biodiversity Net Gain	Full biodiversity impact assessment underway	Pre-construction

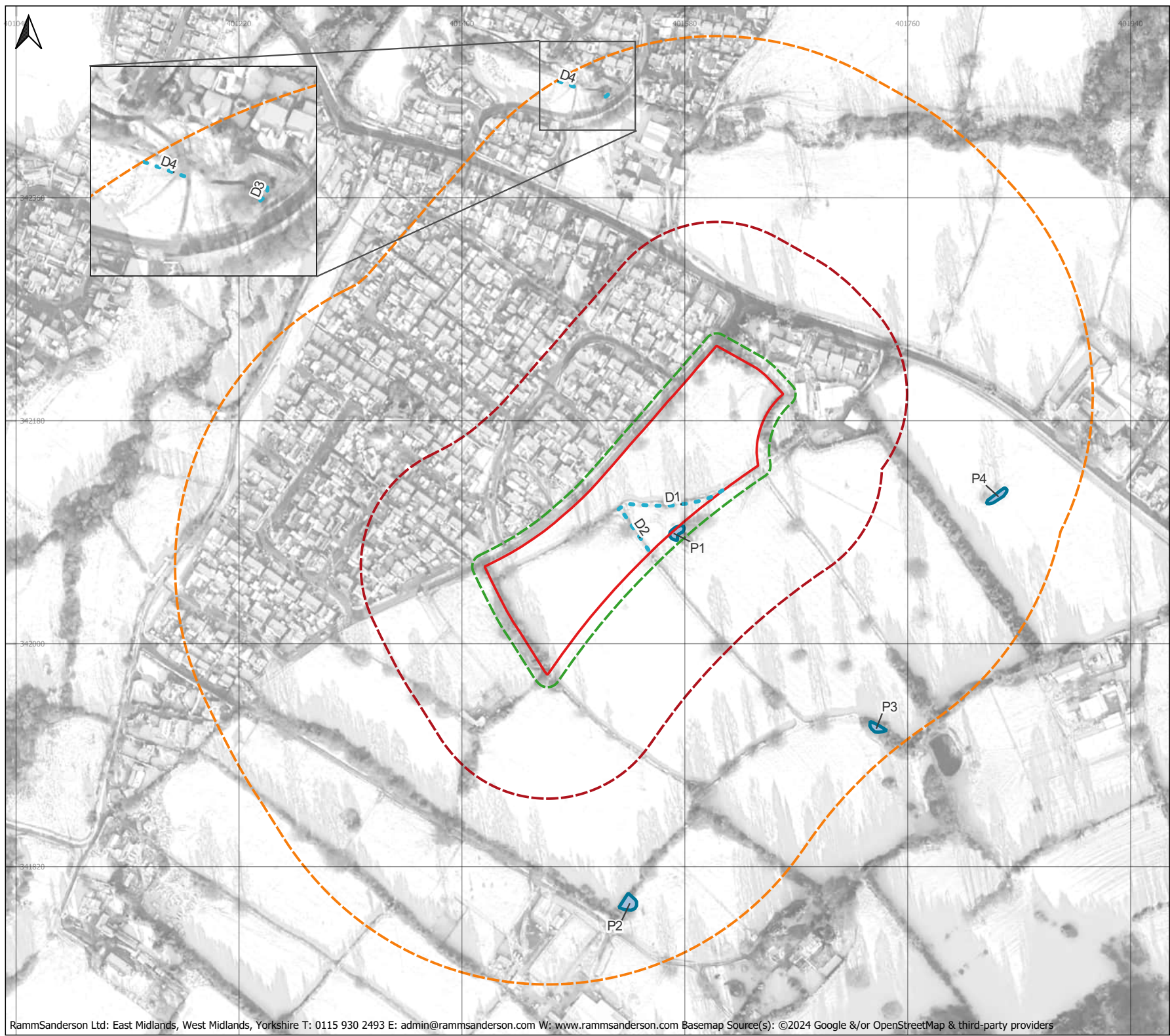
5.2 Re-Survey of Site

- 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.

6 FIGURES



	
Title: Site Context Plan	
Project: Land off Manifold Drive, Cheadle	
Client: CCP Developments (Stone) Limited	
Date: 25/03/2025	Fig: Author: EN
A4 Scale: 1:2011	ID: RSE_9658_STC_0325_V1R1



Key

- Site Boundary
- 10m Buffer
- 100m Buffer
- 250m Buffer
- Pond Location
- Ditch/Drain

Pond no.	Area (m2)
P1	80.88
P2	119.28
P3	61.09
P4	81.53

**RammSanderson**

Title: Waterbody Plan

Project: Land off Manifold Drive, Cheadle

Client: CCP Developments (Stone) Limited

Date: 14/05/2025

Fig:

Author: EN/AH

A4 Scale: 1:4000

ID: RSE_9658_WBY_0525_V1R3

EPSG:27700 OSGB36 / British National Grid

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APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY

- i 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'.
- ii 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

Local Nature Reserve

- i A Local Nature Reserve (LNR) is a statutory designation made under the National Parks and Access to the Countryside Act, 1949, by principal local authorities (district, borough or unitary councils).
- ii The local authority must control the LNR land - either through ownership, a lease or an agreement with the owner.
- iii LNRs are given protection through policies in local development plans.

Locally Designated Sites

- i 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 with a region.
- ii They are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.
- iii 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 / Hazel Dormouse / Otter / Great Crested Newt

- i 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.
- ii 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.
- iii 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.

- iv 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.
- v 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.

Water Vole

- i Water voles are protected under the Wildlife and Countryside Act 1981 (as amended). There are no licensing purposes that explicitly cover development or other construction activities which could have an impact on water voles.
- ii When development work is proposed in or near an area which is either known to or likely to contain water voles, then the developer will need to implement suitable mitigation to prevent impacts to water voles. The preferred mitigation option is to leave water voles in situ, with the development works adopting avoidance measures through redesign of the proposals.
- iii Where impacts cannot be avoided, operations aimed at displacing water voles from a development site are now no longer covered by the “incidental result of an otherwise lawful action” defence in the Wildlife and Countryside Act 1981 (as amended). Displacement of water voles now needs to be undertaken under a licence.
- iv In England, small scale (limited to continuous lengths of bank not exceeding 50 m) displacement of water voles can be carried out at certain times of the year (February to April) for the purposes of conservation under a Class Licence by a registered person. For larger scale displacements or displacements outside of this period, displacement can be undertaken under a site-specific conservation licence.
- v Where it is considered that the best outcome for water voles is capture and translocation to a different location then this action is considered by Natural England to be outside the scope of the defence as the intentional capture of water voles is unlikely to be considered ‘incidental’. In these circumstances there may be genuine grounds for issuing a conservation licence for the purpose of translocating the water vole population to suitable alternative habitat.

Nesting Birds

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

White-clawed Crayfish

- i White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is illegal to take or to sell white-clawed crayfish.
- ii White-clawed crayfish is a species under major threat of global extinction and is referred to in various biodiversity related policy¹⁷. Several organisations involved in works on rivers or other water bodies have

¹⁷White-clawed crayfish is listed under the following: as a “priority” species of conservation importance under Section 41 of the Natural Environment and Rural Communities Act (2000); and listed in LOCAL BIODIVERSITY ACTION PLAN.

general legal obligations¹⁸ to take the presence of white-clawed crayfish into account when issuing permissions to undertake works.

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

- i 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

- i 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.
- ii 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.
- iii 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.
- iv 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.
- v 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

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

¹⁸ Under the Water Resources Act 1991 and the Land Drainage Act 1991 there is a requirement to consider the presence of notable species such as white-clawed crayfish when the Environment Agency, Internal Drainage Board or other statutory agency is considering granting consent for proposed operations to a water course.

Hedgerows

- i 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

- i 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.
- ii 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, 2024

- i 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).
- ii 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”

187.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”

192.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.”

193.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.”

193.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.”

BNG Policy

- i The National Planning Policy Framework states that “planning decisions should minimise impacts on and provide net gain for biodiversity”. Furthermore, from February 2024, 10% BNG became mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). This means all relevant developments must achieve at least 10% BNG relative to the baseline biodiversity value of all land within the planning application boundary.

7.2 Local Planning Policy

- i. The Site is located within the authority of Staffordshire Moorlands District Council. Policies within the Staffordshire Moorlands District Council Local Plan (adopted September 2020) that are relevant to biodiversity are Policy NE 1 Biodiversity and Geological Resources which states that:

The biodiversity and geological resources of the District and neighbouring areas will be conserved and enhanced by positive management and strict control of development (and having regard to relevant ecological evidence) by:

- By ensuring all development schemes have regard to the surveys and actions recommended by the Council's Extended Phase 1 Habitat Surveys and Local Wildlife Assessment and include measures for protection and enhancement of site biodiversity and protection of any geodiversity as appropriate.
- Conserving, and enhancing regional and locally designated sites. The Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that: a) there is no appropriate alternative site available; b) all statutory and regulatory requirements relating to any such proposal have been satisfied; c) appropriate conservation and mitigation measures are provided; or if it is demonstrated that this is not possible; d) the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented.
- Expecting all development where possible seeks to deliver a net gain in biodiversity proportionate to the size and scale of the development. In circumstances where adverse impacts are demonstrated to be unavoidable, developers will be required to ensure that impacts are appropriately mitigated, with suitable compensation measures towards loss of habitat used only as a last resort where there is no alternative. Where any mitigation and compensation measures are required, they should be appropriately scheduled and managed according to the nature, size and scale of the development so as to minimise impacts that may disturb protected or important habitats and species.
- Ensuring development promotes the appropriate maintenance, enhancement, restoration and/or re-creation of biodiversity through its proposed nature, scale, location and design. The Staffordshire Moorlands Biodiversity Opportunity Map, in conjunction with the Staffordshire Biodiversity Action Plan, will be used to guide biodiversity enhancement measures to be included in development proposals as appropriate to the nature and scale of development proposed and other environmental interest, in particular supporting opportunities to increase grassland and heathland habitats including supporting targets in the UK and Staffordshire Biodiversity Action Plan.
- Protecting and enhancing habitats and species of principal importance for the conservation of biodiversity as identified in legislation, and recognising and implementing appropriate measures, including landscape-scale conservation management, to take account of the fact that the distribution of habitats and species will be affected by climate change

7.3 Local Biodiversity Action Plans

Habitats with Action Plans

- Lowland Woodpasture and Parkland
- Native Woodland
- Wet Woodland
- Ancient/diverse hedgerows
- Arable field margins
- Lowland acid grassland

- Lowland calcareous grassland
- Lowland heathland
- Lowland wet grassland
- Unimproved neutral grassland
- Inland saltmarsh
- Mosses
- Ponds, lakes, and canals
- Reedbeds
- Rivers and streams

Species with Action Plans

Mammals:

- Brown hare
- Noctule bat
- Otter
- Pipistrelle bat
- Water vole

Birds:

- Barn owl
- Farmland seed-eating birds
- Grey partridge
- Lapwing
- Nightjar
- Skylark
- Snipe
- Woodlark

Herptiles/fish:

- Atlantic salmon
- Grass snake
- Great crested newt
- Natterjack toad

Invertebrates:

- Bog bush-cricket
- Ground nesting solitary bees and wasps
- Small pearl-bordered fritillary
- White-faced darter
- White-clawed crayfish

Plants/Fungi:

- Dyer's greenweed
 - Hybrid bilberry
 - Floating water-plantain
 - Grass wrack pondweed
 - Native black poplar
- ii. Pink meadow

APPENDIX 2: METHODOLOGY

Desk Study

Background Records Search

- i 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.
- ii 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 (Zoi) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.
- iii In April 2025 Staffordshire Ecological Record was contacted to obtain the following ecological data:
 - Records of non-statutory designated sites (Local Wildlife Sites (LWSs)) 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 List¹⁹.
- iv 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 1 km 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

- v 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

- vi The preliminary ecological assessment includes a walkover survey of the Survey Area (all land within the Site), broadly following the methodology set out in the UKHab survey guidance (UKHab Ltd, 2023). This 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).

¹⁹ 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

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

- 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 (buildings: negligible to high, or confirmed roost; trees: confirmed roost, PRF-M or PRF-L), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2023) guidance.
- Hazel dormouse: the survey involves assessing the potential of habitats within the Survey Area to support hazel dormouse, following English Nature guidance (English Nature, 2006);
- 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

viii Waterbodies within 500m (where accessible) 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

ix 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 8: 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

Biodiversity Accounting

- x The biodiversity net gain (BNG) assessment involves making a comparison between the biodiversity value of habitats present within the Site prior to a development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in terms of 'biodiversity units', with the Statutory Biodiversity Metric²⁰ providing the mechanism to allow biodiversity values to be calculated and compared. The BNG assessment is conducted in accordance with the Statutory Biodiversity Metric User Guide²¹ and BNG good practice principles²².
- xi The metric assesses and generates separate outputs for area-based habitats, hedgerow habitats and watercourse habitats. A development cannot claim to achieve net gain until biodiversity net gains are predicted across all area-based, hedgerow and watercourse habitats.
- xii The calculation for area-based and hedgerow habitats calculates biodiversity units as follows:
- Before Works = Distinctiveness Score x Condition Assessment x Area/Length x strategic significance
 - After Works = ((Distinctiveness Score x Condition Score x Area/ Length x strategic significance) / Time to Target Condition) / Difficulty of Creation/Restoration
- xiii The five factors are determined as set out below:
- Distinctiveness Score – High, Medium or Low, based on UK habitat classifications.
 - Condition Score – Good, Fairly good, Moderate, Fairly poor or Poor, based on habitat condition assessment (as recorded using the Statutory Biodiversity Metric condition assessment sheets²³).
 - Area/Length – hectares (ha)/ length (km) of habitat type.
 - Strategic significance – High (Within area formally identified in local strategy), Medium (Location ecologically desirable but not in local strategy) and Low (Area/compensation not in local strategy/ no local strategy).
 - Time until target condition – time period (in years) until the target condition will be achieved.
 - Difficulty of creation/restoration – a score applied to account for risk associated with creating/restoring different types of habitat.

²⁰ DEFRA (2023). The Statutory Biodiversity Metric DEFRA (2023). The Statutory Biodiversity Metric

²¹ DEFRA (2023). The Statutory Biodiversity Metric User Guide

²² CIEEM, IEMA & CIRAI (2019). Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide

²³ DEFRA (2024). Statutory Biodiversity Metric Condition Assessments.

Limitations

- xiv 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.
- xv 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.

