

Preliminary Ecological Appraisal

Survey site:

Spring Lane Nurseries, Spring Lane, Croft, Warrington, Cheshire WA3 7AS

Client:

Philip Brown Associates

Survey date:

22nd July 2024

Project:

This report is prepared to inform a planning application with the Warrington Borough Council. The proposal is described as:

“Change of use of site to a mobile home site and associated amenity outbuildings.”

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

The site survey was undertaken by Kayleigh Davies BSc, MSc, (Accredited on Natural England Bat Licence – details on request.)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
22/07/2024	18	73	68	12	None

Ecological Survey Factor	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Conclusion, Impact or Recommendations	
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plan in appendix 3 and photos in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
Summary of Survey Findings	The site is centred around National Grid Reference: SJ 63822 92659 and has an area of approximately ~0.93ha. The site is a disused plant nursery and comprises grassland, hardstanding surfaces, scattered trees and hedgerow. The site is located to the north-east of the larger settlement of Warrington, with arable fields to the north and east, Spring Lane and arable fields to the west, and the M62 and pockets of woodland to the south. A site plan is provided in Appendix 2. The underlying geology of the site is sandstone (Wilmslow Sandstone Formation) with superficial deposits of diamicton (Devensian till) overlain by slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils with moderate fertility. Typical habitats of this type include seasonally wet pastures and woodlands. Survey Limitations:

Other neutral grassland (g3c) 102 Other neutral grassland (g3c) Bramble Scrub (h3d) Scattered Trees (32)	No Biological Records Data (BRD) was available at the time of writing this report and this should be obtained, and the report updated to enable a robust ecological impact assessment to be completed. These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation. <u>Survey Site Habitats</u> <u>Sparsely vegetated urban land (u1f)</u> An area of ruderal herb dominated urban land is located to the east of site. Species include Perennial ryegrass (D), Yorkshire fog (F), Meadow grass (R), Nettle (D), Thistle (A), Himalayan balsam (A), Bramble (F), Dock (O), Ragwort (R), Dandelion (A), Bramble (D), Willow herb (A) <u>Mixed Scrub [h3h]</u> Scrub areas are found along the south, west and east boundaries. Species include Bramble (D), Thistle (A), Nettle (F), Himalayan Balsam (F), Willow herb (O) and Ragwort (R). <u>Line of Trees (33)</u> A line of trees is present to the southwestern corner of the site. There is ~15 trees and all mature conifer. All are in good condition with an average trunk size of ~35cm – 45cm trunk diameter and no signs off rot or damage. <u>Site Ownership Habitats</u> <u>Other neutral grassland (g3c) sheep-grazed (102)</u>
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	The site comprises of a large rectangular portion of grassland that has been sheep-grazed, centred to the west of site. Pig pens are located to the north of the grassland and consist of bare ground. This vegetation has a sward length of ~20cm and has <10% bare ground. The field is subject to regular grazing by sheep and is maintained to a short grass length. Species include Perennial rye grass (D), Yorkshire fog (D), Meadow grass (R), Common buttercup (D), Thistle (A), Nettle (A), Daisy (F), Ragwort (F), Herb-Robert, Dock (O), Bramble (R), White clover (F). <u>Scattered Trees (32)</u> Scattered trees are located to the west and north of site on the border of the site boundary. Tree species include Ash (D), Conifer (R). The trees to the north of the site include three semi mature ash trees with an average trunk size of ~40cm in diameter. The scattered trees along the western scrub section of site average ~20cm – 35cm in diameter. <u>Local notable habitats</u> Within a 4km radius of the site is scattered deciduous woodland (closest ~0.18km south-east), scattered traditional orchards (closest ~1.27km north-west), scattered lowland raised bog (closest ~2.60km south-east), two areas of lowland fens (closest ~3.56km north-west), and coastal and floodplain grazing marsh ~3.59km south. Notable habitats are largely disconnected from the site due to their lack of proximity to the site and the presence of major roads acting as barriers.
<i>Foreseen Impacts</i>	The habitats on site are widespread and not notable. Some boundary scrub and scattered ruderal herb will be removed as part of the proposal. No impact on adjacent or nearby habitats off site is foreseen.
<i>Recommendations</i>	Best practice measures to minimise the possibility of pollution affecting the nearby deciduous woodland must be implemented during construction. A Construction Environment Management Plan (CEMP) may be required for this.

	A biodiversity net gain (BNG) report is required for the proposal, as more than 25m ² of habitat is affected by the proposal (one of the exemptions). The scrub to the east of site will be removed and impacted also additional scattered shrubs and ruderal herb.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	There are 5 statutory sites within 4km of the site: • Risley Moss Local Nature Reserve (LNR) & Site of Special Scientific Interest (SSSI) – ~2.36km south-east – <i>Mossland, mixed woodland and grass meadow habitats that support a rich variety of breeding birds, invertebrates and flora.</i> • Manchester Mosses Special Area of Conservation (SAC) – ~2.69km south-east – <i>Degraded raised bogs still capable of natural regeneration.</i> • Highfield Moss SSSI – ~3.56km north-west – <i>Mixed valley mire communities that provide the best remaining example of raised mires which once covered large areas of lowland Greater Manchester and Merseyside. Home to an array of flora.</i> • Paddington Meadows LNR – ~3.59km south – <i>Last remaining waterside grassland within the loop of the River Mersey. Several kilometres of hedgerow, with some of the oldest examples in Cheshire.</i> • Woolston Eyes SSSI – ~3.65km south – <i>Nationally important side for its breeding bird assemblage of lowland open waters and their margins. Also hosts a notable assemblage of amphibians.</i> The site lies within the impact risk zone for Risley Moss SSSI and householder applications are not listed as a possible high risk for this designation.
<i>Foreseen Impacts</i>	No impacts foreseen, given the distance of the proposed development from statutory designated sites.
<i>Recommendations</i>	None required.
Invasive / Non-native species	

<i>Summary of Survey Findings</i>	Himalayan Balsam is present on site within the scrub sections to the west and east of site. it is also located immediately adjacent to the southern boundary in an offsite field.
<i>Foreseen Impacts</i>	Himalayan balsam will be removed as part of the development and the proposed works may lead to the accidental spread of an invasive species.
<i>Recommendations</i>	The following measures should be implemented to control and/or eradicate Himalayan balsam from the site: • Himalayan balsam removal should be undertaken between April and June, prior to seeding. • Pull the plant up by grasping the base of the stem and giving a steady gentle pull to bring up roots. • Dispose of Himalayan balsam in line with appropriate controlled waste measures or by leaving it in a pile to compost down (this stops the balsam re-growing from the roots or the nodules on the stem). • Ensure biosecurity measures are in place and clean boots, clothing and vehicle tyres before leaving site.
Invertebrates	
<i>Summary of Survey Findings</i>	No habitat for protected or notable invertebrates is found on site. Biological Record Data • There is 1 record of ringlet situated ~200m south.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys. Enhancements The following recommendations are recommended to enhance onsite habitat for invertebrates: • Native wildflower planting • Native shrub planting
Bats	

<i>Summary of Survey Findings</i>	A review of the MAGIC database returned 4 European Protected Species Licenses (EPSLs) for bats within a 4km radius of the site: • 2014-5423-EPS-MIT – Common pipistrelle – ~1.56km south-east – Damage and destruction of a resting place and breeding site • 2019-40708-EPS-MIT – Common pipistrelle – ~1.73km south-east – Destruction of a resting place • 2016-22136-EPS-MIT – Common pipistrelle – ~3.08km south-west – Unknown • 2015-15948-EPS-BDX – Soprano pipistrelle – ~3.77km north-east – Damage and destruction of a resting place and breeding site Biological Record Data • There is 1 record of brown long eared bat commuting/foraging activity situated ~1.5km north. • There are 21 records of common pipistrelle bat. There are 4 records of day roost, the closest is situated ~1.3km east. There are 17 records of common pipistrelle commuting/foraging activity, the closest is situated ~1.3km northeast. • There are 3 records of soprano pipistrelle commuting/foraging activity, the closest of which is situated ~1.5km west. • There are 3 records of noctule commuting/foraging activity, the closest of which is situated ~1.5km west. • There are 3 records of whiskered/Brandt's commuting/foraging activity, the closest of which is situated ~1.5km west. The onsite habitats provide moderate commuting and foraging habitats for local bat populations due to the scrub and lines of trees. The ownership boundary includes a sheep grazing field which also provides further habitat to support
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	foraging bats. The wider landscape provides high value foraging habitat with scattered ponds and watercourses, hedgerow lined fields and scattered trees. There is no roosting habitat on site for bats. The scattered trees on site are all negligible for roosting bats with no visible roosting features noted during the survey.
<i>Foreseen Impacts</i>	The proposed development will lead to the removal of ruderal herb and scrub which provides low value for commuting bats. No impacts anticipated on roosting habitat. The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.
<i>Recommendations</i>	No further surveys are required. A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2 <u>Enhancements</u> The installation of one bat box on retained mature trees on site will provide additional roosting habitat for bats. Recommended bat box brands include the Beaumaris bat box or Schwegler 1B bat box or any other suitable brand.
Birds	
<i>Summary of Survey Findings</i>	No evidence of nesting birds was found on site during the surveys; however, birds could use the scrub and trees on site. No habitat for schedule 1 birds was observed. Biological Record Data

	• There is 1 record of barn owl situated ~1.6km west. • There is 1 record of bullfinch situated ~1.8km northeast. • There is 1 record of corn bunting situated ~1.5km west. • There are 11 records of grey partridge, the closest of these is situated ~500m north. • There are 11 records of lapwing, the closest of which is situated ~1.6km west. • There are 3 records of linnet, the closest of which is situated ~1.5km west. • There are 2 records of reed bunting, the closest of which is situated ~1.6km west. • There are 6 records of skylark, the closest of which is situated ~1.6km west. • There are 3 records of song thrush, the closest of which is situated ~650m north. • There are 2 records of tree sparrow, the closest of which is situated ~1.6km north.
<i>Foreseen Impacts</i>	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.
<i>Recommendations</i>	Any vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged. Bird boxes on retained mature trees on site will add additional habitat for nesting birds. Examples of bird boxes include: • Schwegler 1B Nest Boxes (trees)

	• Schwegler 2H Robin Boxes (trees) • Woodstone Nest Box (buildings or trees)
Reptiles	
<i>Summary of Survey Findings</i>	There are no reptile European Protected Species Licenses (EPSLs) within 4km. The onsite habitats provide suboptimal habitats for reptiles due to the thin areas of boundary scrub which has low value. Isolated and commuting individuals could potentially be present within the sheep-grazed grassland. However due to the lack of suitable reptile habitat it is unlikely that reptiles are present within the development site.
<i>Foreseen Impacts</i>	Although no areas of suitable habitat is being removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works. These could be injured or killed without mitigation.
<i>Recommendations</i>	A precautionary working method will be implemented for widespread reptiles during construction, including the following measures: • Vegetation will be maintained at a short sward (5cm) to discourage reptiles. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist. The site could be enhanced for reptiles post development with the inclusion of log piles and a compost heap.
Amphibians	
<i>Summary of Survey Findings</i>	A review of the MAGIC database returned 4 historical European Protected Species Licenses (EPSLs) for great crested newts within a 2km radius of the site:

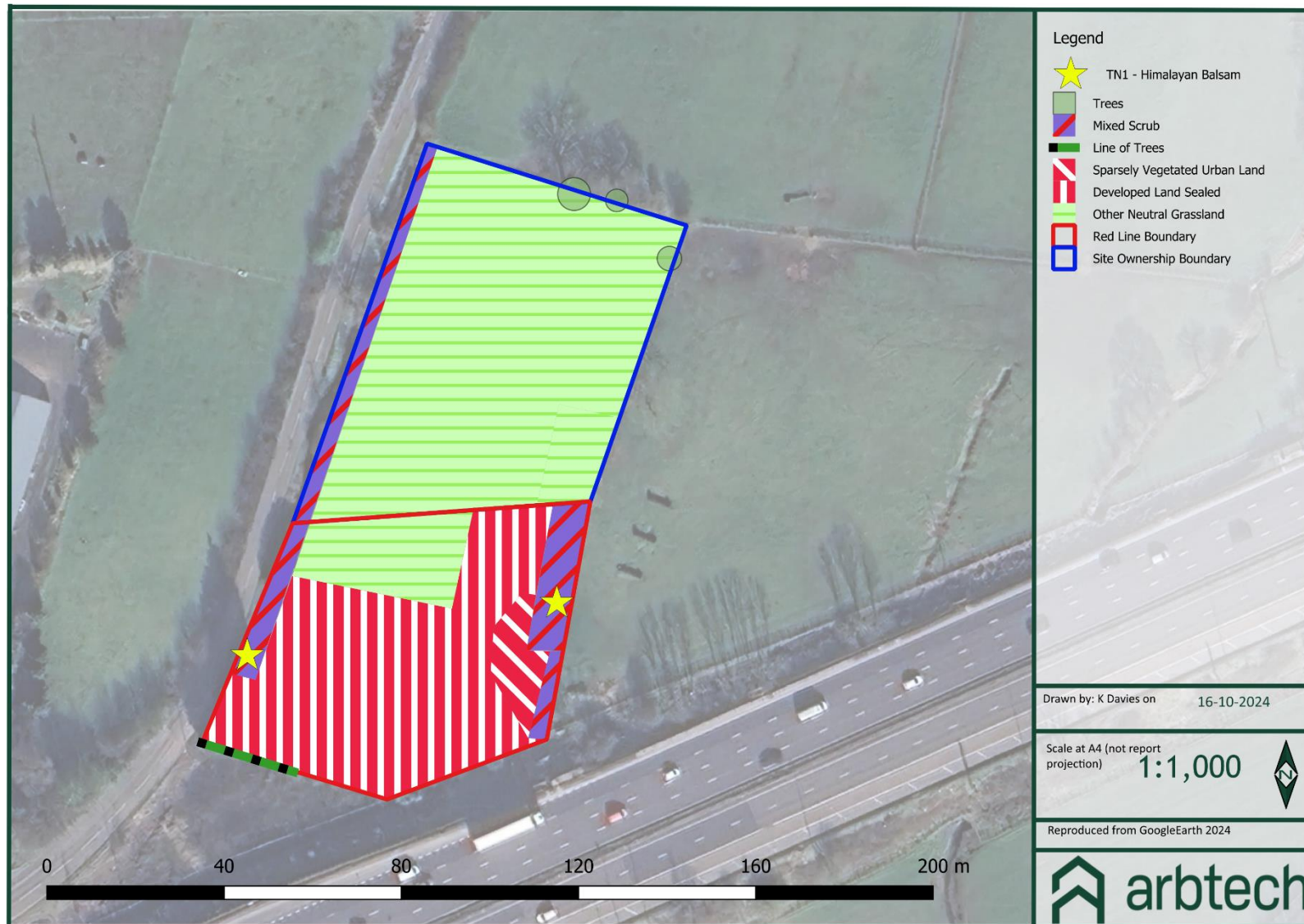
	• 2018-36245-EPS-MIT – ~0.10km south-east – Damage and destruction of a resting place (2019) • EPSM2013-6106 – ~0.43km east – Destruction of a resting place (2014) • 2018-36245-EPS-MIT – ~0.53km north-east – Damage and destruction of a resting place (2019) • EPSM2009-1280 – ~1.80km south-east – Destruction of a resting place (2012) Great crested newts were known from licence returns ~1.24km south-east in 2016 and 1.94km north-west in 2017. Biological Record Data • There are 3 records of great crested newt, the closest of which is situated ~1.6km southeast. There are seven ponds within a 500m radius of the site. P1, P2 and P3 are located ~156m, ~170m and ~370m north of the red line boundary, respectively. P4 is located ~170m east of the site. P1-4 are connected to the site via open grassland and hedgerow networks. P5, P6 and P7 are disconnected from the site by the M62, which is considered to represent a significant barrier to dispersal. All the EPSL returns are from ponds likely across the M62, which is disconnected from site. however, from license returns to the northwest of the site, there is great crested newts known near to the site, not disconnected via the motorway. The site contains grassland and scrub which provide good terrestrial opportunities for GCN and other more common amphibians for foraging, refuge, and hibernation. The presence of GCN within the site for transient periods in the grassland and utilising the hedgerow and refugia is possible, given the suitable on-site habitats, and proximity of possible GCN breeding waterbodies (ponds). Common amphibian presence across the site is also likely, given the presence of suitable habitat on the site and proximity of waterbodies.
<i>Foreseen Impacts</i>	When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of ~0.1ha of scrub and ruderal herb.

	If GCN are present within the ponds in the surrounding area (P1-7, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a GREEN score, which states: OFFENCE HIGHLY UNLIKELY. <table><tr><th>Component</th><th>Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)</th><th>Notional offence probability score</th></tr><tr><td>Great crested newt breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land within 100m of any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land 100-250m from any breeding pond(s)</td><td>0.1 - 0.5 ha lost or damaged</td><td>0.1</td></tr><tr><td>Land >250m from any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Individual great crested newts</td><td>No effect</td><td>0</td></tr><tr><td colspan="2">Maximum:</td><td>0.1</td></tr><tr><td>Rapid risk assessment result:</td><td colspan="2">GREEN: OFFENCE HIGHLY UNLIKELY</td></tr></table> However there is a risk of commuting great crested newts and common amphibians through site due to the close proximity of P1 to the north of the site boundary. Therefore, the removal of the onsite vegetation may result in the harm or death of individual amphibians not mitigated for.	Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score	Great crested newt breeding pond(s)	No effect	0	Land within 100m of any breeding pond(s)	No effect	0	Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1	Land >250m from any breeding pond(s)	No effect	0	Individual great crested newts	No effect	0	Maximum:		0.1	Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	
Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score																							
Great crested newt breeding pond(s)	No effect	0																							
Land within 100m of any breeding pond(s)	No effect	0																							
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1																							
Land >250m from any breeding pond(s)	No effect	0																							
Individual great crested newts	No effect	0																							
Maximum:		0.1																							
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY																								
Recommendations	A precautionary working method will be implemented for widespread amphibians during construction, including the following measures: • Vegetation will be maintained at a short sward (5cm) to discourage amphibians. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.																								

	Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any common amphibians are found in the working area these should be allowed to disperse of their own accord. If any great crested newts are found during works, all works should cease and an experienced ecologist should be contacted.
Badger	
<i>Summary of Survey Findings</i>	Biological Record Data There is 1 record of a deceased badger situated ~400m southwest. No evidence of badgers was found on site or suspected within 30m of the survey boundary. However commuting badgers within the wider landscape cannot be discounted. On site habitats include grassland and scrub habitats and is further surrounded by fields and therefore will support badger populations.
<i>Foreseen Impacts</i>	No impacts on badgers setts by the proposed works, however, there is a risk of harm or death of commuting badgers if present due to the proposed works.
<i>Recommendations</i>	Basic precautionary mitigation during works is recommended: - Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. - The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use. South and west boundaries. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

	In the unlikely event that a badger sett is identified within 30m, works must cease and advice must be sought from a suitably qualified ecologist.
Riparian animals	
<i>Summary of Survey Findings</i>	Biological Record Data There is 1 record of water vole situated ~1.2km south. There are no watercourses on or connected to the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	N/A
Hazel dormouse	
<i>Summary of Survey Findings</i>	A review of the MAGIC database returned no granted EPSL records for hazel dormice within 4km of the site. The site lies outside of the known geographic range for hazel dormouse (either natural or reintroduced). Furthermore, the site does not comprise the habitat required to support hazel dormouse (i.e., connected hedgerow networks or woodland). Hazel dormouse presence across the site is unlikely.
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	Biological Record Data There are 6 records of hedgehog, the closest of which is situated ~500m north. The grassland and scrub onsite provide foraging and commuting opportunities for hedgehogs, with woodland habitat nearby and further fields connected to site.

<i>Foreseen Impacts</i>	Construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures: • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

Appendix 1: Habitat map

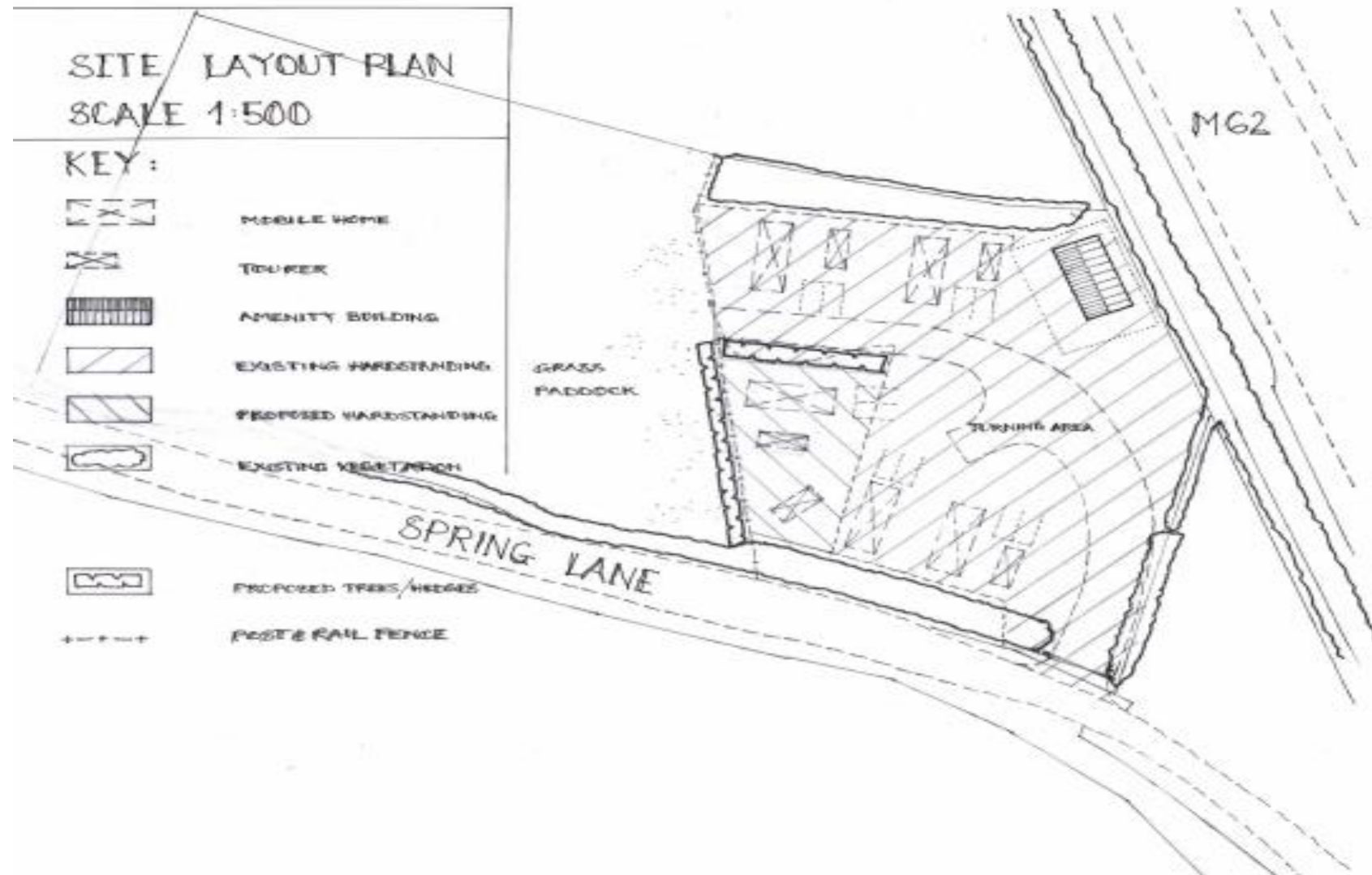
Appendix 2: Location Map



Appendix 2a: Pond Map



Appendix 3: Proposed plan



Appendix 4: Photos

Photo		Photo Description	
		Fig 1 - the sheep field.	
		Fig 2 – the north of the sheep field.	



Fig 3 – the scrub boundary to the west of site.



Fig 4 – the line of trees to the south.



Fig 5 – overview of the onsite developed land.



Fig 6 – overview of the east of the developed land.



Fig 7 – sparsely vegetated urban land.



Fig 8 – log piles.



Fig 9 – the east of the developed land.



Fig 10 – sparsely vegetated land.



Fig 11 – overview of the southwestern corner of the site.



Fig 12 – the off site field to the south of the site with Himalayan balsam.



Fig 13 – overview of the on site entrance.



Fig 14 – further Himalayan balsam spread to the south west of site.

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Version control			
Status	Issue	Name	Date
Draft	0.1	Katie Harris, BERS Intern	01/08/2024
Draft	0.2	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	16/10/2024
Proof	0.3	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	16/10/2024
Final	1.0	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	16/10/2024
Updated	1.1	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	25/10/2024

