Preliminary Ecological Appraisal (PEA) Survey Report	
For:	Heneghan Architecture
Site:	Old Water Hall, 29 Huddersfield Road, Mirfield, WF14 8AE.
Report Date:	5th February 2026
Report Reference:	SQ-4050

Surveying Ecologists:

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Client:	Heneghan Architecture
Site Name:	Old Water Hall, 29 Huddersfield Road, Mirfield, WF14 8AE.
Grid Reference:	SE 20584 19702
Report:	Preliminary Ecological Appraisal
Date of Survey:	13th January 2026
Lead Ecologist:	Emily Southern BSc (Hons)

Issue:	Version:	Stage:	Date:	Prepared by:	Approved by:
-	Draft	Submission for Review	3rd of February 2026	Saffron Shiels BSc (Hons) – Estrada Ecology Ltd	Emily Southern BSc (Hons) – Estrada Ecology Ltd
-	Final	Submission for Review	5th February 2026	Saffron Shiels BSc (Hons) – Estrada Ecology Ltd	Natasha Estrada MRes, MCIEEM- Estrada Ecology Ltd

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The contents of this report have been produced with consideration of current best practice guidance and in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct.

This report should not be submitted as part of a planning application without any accompanying species-specific reports, which may have been recommended herein.

Data within this report is valid for a maximum of eighteen months from the date of the survey. After this period, an updated site visit will be required to determine a new ecological baseline.

Site Summary

The northern section of the site comprises a vegetated garden, sealed surface access road and two buildings (which are Hall house and a converted stable). The southern section of the site comprises modified grassland, bramble scrub with areas of ruderal/ephemeral vegetation. Throughout the site, individual trees range from small to large sizes. There are a line of trees and a hedgerow in the middle of the site.

The site is located within an urban landscape, and most of the wider surroundings comprise residential properties. At the northern boundary of the site is Huddersfield Road. South of the site, approximately 10 m from the southern boundary, is a canal which runs from east to west.

Findings

The individual trees, bramble scrub and shrubs within the vegetated garden all provide suitable habitat for nesting birds. The bramble scrub, shrubs and a few trees are scheduled to be removed during the planned site works. To ensure there are no impacts to birds using these habitats during the breeding bird season, precautionary measures are included in this report.

The buildings and trees on site were assessed for roosting potential for bats. The two buildings were deemed to provide opportunities for bats. Building A, the converted stable, has **low** roost suitability and Building B, Hall house, has **moderate** roost suitability. The trees within the survey area were determined to provide **negligible** suitability for bats. The site provides suitable foraging and commuting habitat for bats, in the form of the line of trees on site and the open modified grassland. The trees along the western boundary of the site and the canal south of the site both provide good commuting corridors to the site. Further

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survey effort is recommended for both buildings on site to determine how bats are using them. Precautionary measures are included in this report to ensure that there are no impacts on foraging/commuting bats on site.

The site is deemed to offer residual commuting habitat for use by Eurasian badger (*Meles meles*) due to the connectivity to woodland, which is suitable for badgers. To ensure there are no impacts on badgers commuting through the site, precautionary measures are included in this report.

The bramble scrub and ruderal/ephemeral habitats on the site provide suitable refugia for hedgehog (*Erinaceus europaeus*). These habitats are to be removed, and precautionary measures for vegetation clearance are included in this report. Precautions have also been recommended to ensure that hedgehog is not indirectly impacted by the works.

The modified grassland, ruderal/ephemeral, bramble scrub and garden scrub all provide suitable opportunities for reptiles. Most of these habitats are to be removed, and precautionary measures are included in this report for vegetation clearance. Precautions have also been recommended to ensure that hedgehog is not indirectly impacted by the works.

There is a canal 10 m south of the survey area, which could be used by transient Eurasian otter (*Lutra lutra*). To ensure there are no impacts on the canal and any protected species it supports, a Construction Environmental Management Plan (CEMP) has been recommended. The CEMP will include mitigation meaures for pollution run-off into aquatic habitats and the other precautionary measures outlined in this report.

No confirmed protected or notable flora listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were recorded on site.

No confirmed non-native/invasive flora listed on Schedule 9 (II) of the Wildlife and Countryside Act 1981 (as amended) were recorded on site.

The site was recorded to lack significant floral diversity and is unlikely to support important assemblages of invertebrates.

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Contents:

Whilst every effort has been taken to ensure the accuracy of this report and its contents in view of potential ecological constraints to development or the likely presence or absence of species it must only be viewed as a snapshot in time and not be viewed as definitive. Due to external factors, such as seasonality, weather etc., having the potential to affect survey results, no liability can be assumed for omissions or changes that may or may not occur after the date this report was produced.

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1 Introduction and Background to the Site

1.1 Estrada Ecology Ltd was commissioned to conduct a Preliminary Ecological Appraisal (PEA) at Old Water Hall, 29 Huddersfield Road, Mirfield, WF14 8AE.

1.2 Habitats recorded within the site during the site survey include the following:

- Buildings
- Vegetated Garden
- Developed Land, Sealed Surface
- Individual Trees
- Modified Grassland
- Native Hedgerow
- Ruderal/Ephemeral
- Bramble Scrub

1.3 It is understood that the current proposal seeks to create multiple residential plots with associated vegetated gardens and driveways. There will be a total of seven houses, and it is not certain at this stage whether the two existing buildings on site will be retained, developed or replaced. The plans include communal gardens which encompass modified grassland, trees and hedgerows. Some of which are retained from the baseline, and some of which are planted.

1.4 Report Objectives

- Present the findings of the ecological survey,
- Assess the potential of existing onsite habitats to support protected or notable species,
- Evaluate any likely ecological impacts on protected and notable species or habitats because of the proposed development,
- Provide recommendations for any further species-specific survey and mitigation measures that may be required, and
- Provide habitat enhancement recommendations in line with the National Planning Policy Framework (NPPF, 2024).

1.5 Site Location and Wider Area

1.5.1 The site is located in an urban setting, which is the town of Mirfield in the Metropolitan Borough of Kirklees, West Yorkshire.

1.5.2 The survey site's central OS grid reference is recorded to be SE 20584 19702.

1.5.3 The wider surroundings are urban, which comprise residential and industrial areas with a few parcels of arable land within the outskirts. There is a large parcel of woodland approximately 196 m southeast of the site. Mirfield station and railway are located 184 m north of the site, running east to west, and the River Calder is located approximately 471 m north and runs east to west.

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1.5.4 The immediate surroundings comprise residential plots with lines of trees and some fields. Huddersfield Road runs along the northmost boundary of the survey area; the eastern and western boundaries are residential area. Along the southern boundary is a strip of grassland with a canal which runs parallel to the southern boundary 10 m from the survey area.

Figure 1: The survey site within its wider setting, demarcated in red.

Google Maps (2026)

2 Protected Species Legislation

2.1 Relevant legislation includes the Conservation of Natural Habitats and Species Amendment (EU Exit) Regulations, which came into force on 31 December 2020.

2.2 The Natural Environment and Rural Communities (NERC) Act came into force on 1 October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act. The S41 list is used to guide decision makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural

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Communities Act 2006, to have regard to the conservation of biodiversity in England, when conducting their normal functions.

2.3 The UK Post-2010 Biodiversity Framework was developed in response to the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011 - 2020. Its five strategic goals and twenty biodiversity targets supersede the UK Biodiversity Action Plan.

2.4 Environment and Biodiversity

2.4.1 Under the National Planning Policy Framework (NPPF, 2024), local planning authorities should aim to conserve and enhance the natural environment when determining planning applications. Local planning authorities also have an obligation to seek opportunities to enhance the conservation status of Species and Principal Habitats.

2.4.2 Species and Habitats of Principal Importance for the conservation of biodiversity in England (JNCC, 2009) are covered under section 41 of the Natural Environmental and Rural Communities (NERC) Act (2006). Species and habitats listed within Section 41 need to be taken into consideration by a public body when performing any of its functions, such as assessing planning applications.

2.4.3 Development proposals submitted after 12th of February 2024, with some exceptions, will be expected to achieve a minimum of 10% net gain in site biodiversity value under The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024.

2.5 Wildlife

2.5.1 European Protected Species are afforded protection under the Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way Act 2000. It is an offence to:

- Deliberately or recklessly capture, injure, or kill any wild animal of a European protected species,
- Deliberately or recklessly disturb any such animal,
- Damage or destroy their breeding site or resting place, and
- Keep, transport, or offer for sale / exchange any live or dead animal, or any part of, or anything from these species.

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2.5.2 Disturbance of European Protected Species constitutes any activity which is likely to:

- To impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or, in the case of animals of a hibernating or migratory species, to hibernate or migrate, and
- To significantly affect the local distribution or abundance of the species to which they belong.

2.6 UK Legislation

2.6.1 **Breeding birds** (all species) are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird and to take, damage or destroy the nest (whilst being built or in use) or eggs. Schedule 1 species are afforded protection from disturbance at or near nest sites, including reckless disturbance under the Countryside Rights of Way (CRoW) Act 2000.

2.6.2 **Bats** (all native species) and their breeding sites or resting places (roosts) are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended). Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from: intentional or reckless disturbance (at any level); obstruction of access to any place of shelter, breeding, or rest; selling, bartering or exchange of these species, or parts of.

2.6.3 **Eurasian Badgers** are protected by the Protection of Badgers Act 1992 and under the Wildlife and Countryside Act 1981 (as amended). It is an offence: to wilfully, or attempt, to kill, capture, ill-treat or injure any badger; to obstruct, destroy or damage a badger sett or to disturb a badger whilst within its sett; to sell or offer for sale a live badger, or have possession or control of a live badger; and marking a badger or attaching any ring, tag, or other marking device to a badger.

2.6.4 **Eurasian Otters** are a European Protected Species (EPS) and are also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. It is against the law to capture, kill, disturb or injure otters (on purpose or by not taking enough care); damage or destroy a breeding or resting place (deliberately or by not taking enough care); obstruct access to their resting or sheltering places (deliberately or by not taking enough care); and possess, sell, control, or transport live / dead otters.

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2.6.5 **European Water Voles** are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species. It is against the law to: Intentionally capture, kill, or injure water voles, damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care), disturb them in a place of shelter or protection (on purpose or by not taking enough care), and possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

2.6.6 **Amphibians** (all native species) are protected by the Wildlife and Countryside Act 1981 (as amended). The sale, barter, exchange, transportation for sale, and advertising to sell or to buy are an offence.

2.6.7 **Reptiles** (all native species) are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure and trade these animals.

3 Survey Methodology

3.1 Desktop Survey

3.1.1 A biological data records search was commissioned from West Yorkshire Ecology Service (WYES) for a 2 km search from the central grid reference.

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

3.1.3 Furthermore, consultation with MAGIC was undertaken to ascertain any European Protected Species Mitigation Licences granted within the search radius from the grid.

3.1.4 Natural England's Geoportal: England-wide data for great crested newts (*Triturus cristatus*) (GCN) was analysed for any records within a 1 km radius from grid. The dataset contains eDNA pond surveys for district-level licensing (England). When available for the location, the Risk Zones for GCN are considered for the site.

3.2 Field Survey

3.2.1 The survey area was investigated on foot to ascertain habitats on site and the potential of those habitats to support ecological diversity. The vegetation types present within the site were assessed by ecologist Emily Southern BSc (Hons)

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using methodology based on that described in the UK Habitat Classification User Manual Version 2.1 (2023) and CIEEM's Guidelines for Ecological Impact Assessment (2024).

3.2.2 Habitats and features with potential to support protected and / or conservation priority faunal species, together with any field signs of such species were recorded on the field map using target notes. A search was undertaken for the following key habitats and field signs for protected or conservation priority species highlighted in Table 1.

Table 1: Key habitats and field signs of protected and priority species.

Taxon	Indicative Habitats	Field Signs
Bats	Roosts - Trees, buildings, bridges, caves, etc. Foraging areas - e.g., parkland, water bodies and streams, wetlands, woodland edge, hedgerow. Commuting routes - linear features (e.g., hedgerows).	In or on potential roost sites: Droppings stuck to walls; urine spotting in roof spaces; oil from fur staining around roost entrances; feeding remains (e.g., moth wings).
Great Crested Newts	Ponds within 500m of suitable habitat within the site boundary. Suitable (terrestrial) habitat includes rough grassland, scrub and woodland, log and rubble piles and other debris, animal burrows.	Eggs, Individuals of all life stages. Egg rolled plants.
Reptiles	Rough grass and compost heaps, log, and rubble piles.	Sloughed skins; eggs, individuals.
Birds	Trees, scrub, hedgerow, field margins, grassland.	Nests; droppings below nest sites (especially in buildings of trees); tree holes.
Badgers	Found in most rural and many urban habitats.	Excavations and tracks: sett entrances, latrines, hairs, well-worn paths; prints; snuffle holes.
Otter	Water bodies/water courses.	Holt entrances; prints; latrine/spraint sites; anal

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		jelly/smears.
Water Vole	Water bodies/water courses.	Burrow entrances; prints; latrine areas; faeces; feeding stations.
BAP Invertebrates	Each butterfly species has its own habitat requirements determined by the food plant of the caterpillar, the nectar source for the adult and the conditions needed for the caterpillar to survive and then pupate successfully.	Eggs, larva, Pupa, adult butterfly. Habitat type and presence of food plants.

3.3 Timing and Weather Conditions

3.3.1 The survey was conducted on the 13th of January 2026. Weather conditions during the site visit were partly cloudy and dry with a temperature of 7°C. Visibility was good during the survey.

3.4 Personnel

3.4.1 The survey was undertaken by ecologist Emily Southern BSc (Hons), who is experienced with ecological surveying, including phase one habitat surveys and Biodiversity Net Gain assessments.

3.4.2 The surveying ecologist worked under the supervision and guidance of experienced ecologist Natasha Estrada BSc (Hons), MRes, MCIEEM, who is a licensed bat ecologist (2025-85541-CL18-BAT) and the named ecologist on several Natural England European Protected Species Mitigation Licenses.

3.5 Preliminary Roost Assessment

3.5.1 Where present and access could be gained, trees and buildings were subject to an external inspection to determine their suitability to support roosting bats. The external inspections were conducted in accordance with current best practice guidance (Collins, 2023).

3.5.2 Potential bat roost features and field sign evidence of use of the site by bats include the presence of droppings, stains, or grease marks, feeding remains, or the observations of the bats themselves.

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3.5.3 Where present, trees, buildings, and the quality of onsite habitats were then categorised based on the classification criteria in 'Bat Surveys for Professional Ecologists' (Collins, 2023). Classification criteria are presented below:

- **Negligible:** No obvious habitat features on site likely to be used by roosting bats; is however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
- **Low:** A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used regularly or by larger numbers of bats.
- **Moderate:** A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat, but unlikely to support a roost of high conservation status.
- **High:** A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts (e.g., maternity, or classic cool/stable hibernation site).

4 Ecological Constraints

4.1 It should be noted that this ecological appraisal provides baseline ecological data at the time of survey only and does not include flora or fauna which may be present at different times of the year.

4.2 An absence of species records from within a search radius does not confirm that a species is absent from within the search area.

4.3 The western elevation of Building B, the hall house, could not be inspected due to restrictive access. The western elevation of Building B adjoins to a property to the west which is not within the ownership boundary. The internals of Building A and Building B could not be inspected during the survey including the roof voids.

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5 Survey Results

5.1 Field Survey Results

5.1.1 Habitat Overview

5.1.1.1 A summary of the habitats recorded during the site inspection are listed in the table below. The Phase One map of the site is provided in Appendix One. A list of species recorded on the site during the survey can be found in Appendix Two.

Table 2: Recorded habitats within the site boundaries.

Habitat	UK HABS Codes	
	Primary	Secondary
Buildings	**u1b5**	-
Vegetated Garden	**u**	823
Developed Land; Sealed Surface	**u1b**	-
Individual Trees	g	**32**
Modified Grassland	**g4**	-
Native Hedgerow	**h2a**	-
Ruderal/Ephemeral	g4	**81**
Bramble Scrub	**h3d**	-

5.1.2 Buildings

5.1.2.1 There are two buildings within the survey area, which are both situated in the northern section of the site. One of the buildings (Building A) is a converted stable which is adjacent to the eastern boundary and the other building (Building B) is a hall house which is adjacent to the western boundary.

5.1.2.2 Both buildings were inspected for potential roosting features for bats. The assessment of each is as follows:

5.1.2.3 Building A is a rectangle building with a gable roof. The walls are comprised of stone bricks, and the roof is stone tiles. The building comprises two large wooden barn doors, two wooden ground level doors, a converted door on the second

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floor, several windows and a chimney. The building is in good condition with a few fissures in between the brickwork, notably along the tops of both barn doors, one on the southern elevation and one in the top left corner of the eastern elevation. The whole roof, which includes the ridge, eaves, chimney, roof plane and gable end, is in good condition with no roosting features recorded.

5.1.2.4 Building B is a long, rectangular shape which is slightly irregular; this building has a hip roof. The walls are stone bricks, and the roof is stone tiles. The building comprises two doors on the eastern elevation, many windows, two chimneys and a conservatory attached to the southern elevation. The walls of the building were in good condition with one fissure in the top left corner of the southern elevation. The roof was recorded to be warped in some places, causing tiles to lift, creating gaps underneath them.

5.1.2.5 These buildings both have potential for roosting bats. At this stage, it is not known what works are to be undertaken on the buildings, whether they are to be retained, renovated or demolished.

Figure 2: Building A, converted stable.

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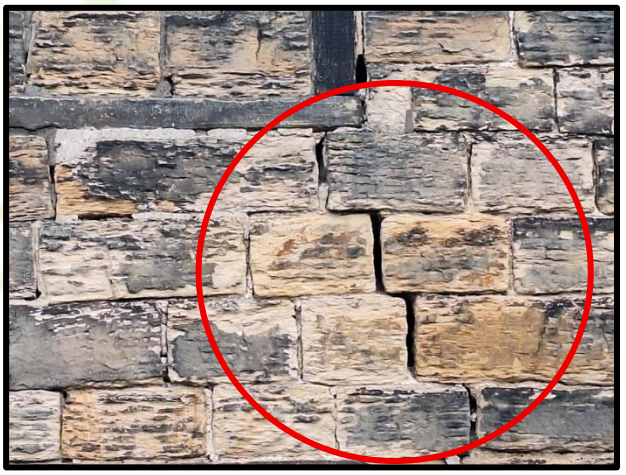

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Figure 3: Building B, The hall house.

5.1.3 **Vegetated Garden**

5.1.3.1 The northern section of the site comprises of vegetated garden which is situated around the buildings on site. The garden is split up into parcels by access roads. Within the garden there is a vegetable patch, stone paths, walls and trees. The sward height of most of the vegetation within the garden is short with the shrubs along the walls being taller.

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5.1.3.2 All trees were inspected for roosting features for bats, as to which none were identified.

5.1.3.3 The grass patches included perennial ryegrass (*Lolium perenne*), creeping buttercup (*Ranunculus repens*) and cleavers (*Galium aparine*) with common nettle (*Urtica dioica*) and bramble (*Rubus fruticosus*) along the margins. Within the garden patch there was great mullein (*Verbascum thapsus*), foxglove (*Digitalis purpurea*), hairy bittercress (*Cardamine hirsuta*), winter aconite (*Eranthis hyemalis*), mint species (*Mentha* sp.) and other planted garden species. Along the walls there was tutsan (*Hypericum androsaemum*), barberry (*Berberis vulgaris*), holly (*Ilex aquifolium*), cherry laurel (*Prunus laurocerasus*) and viburnum species (*Viburnum* sp.).

5.1.3.4 This habitat offers some opportunities for protected species, particularly within the shrubs and trees. The shrubs offer suitable refugia for amphibians, reptiles and birds and the trees offer additional nesting opportunities for birds. Therefore, the vegetated garden offers some ecological value. Some sections of the garden are to be retained; other sections are to be replaced with modified grassland and developed land sealed surface.

Figure 4: Vegetated garden.

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5.1.4 **Developed Land, Sealed Surface**

5.1.5 The access road that runs through the site comprises tarmac and the pathways and patio within the vegetated garden are stone.

5.1.5.1 Due to the lack of species it supports, the developed land sealed surface provides negligible ecological value.

Figure 5: Developed land; sealed surface.


5.1.6 **Modified Grassland**

5.1.6.1 The southern section of the site is composed of modified grassland. This habitat has been split into two sections for the ease of the report, these can be referred to in Appendix One. Section A is the parcel of grassland which starts after the vegetated garden and ends before the line of trees, Section B encompasses the land from the line of trees southwards.

5.1.6.2 Species within this habitat included, red fescue (*Festuca rubra*), cock's-foot (*Dactylis glomerata*), cleavers, bramble, dove's-foot crane's-bill (*Geranium*

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molle), cow parsley, common nettle, common vetch (*Vicia sativa*) and stinking iris (*Iris foetidissima*). Within the grassland there are some ash and oak (*Quercus* sp.) saplings. One non-native invasive species, wall cotoneaster (*Cotoneaster horizontalis*) was noted within this habitat.

5.1.6.3 Section A was recorded as having a very short sward height. There is a small and shallow garden pond within Section A. This was inspected and deemed to offer no suitability for any protected species, such as amphibians. This section offers little suitability for protected species due to its very short, uniform sward.

5.1.6.4 Section B was recorded as having a varied sward height, including short, medium and tall vegetation. It is understood that Section B was previously used as a pony paddock. A few diggings were identified within Section B of the grassland. Due to the size and shape, these were determined to have been created by rabbit. This section offers good suitability for reptiles and amphibians due to the varied sward height providing opportunities for refuge and basking.

5.1.6.5 The grassland is considered to offer good ecological value due to the species it possibly supports; this habitat is to be replaced with vegetated gardens and sealed surface, with some sections of grassland being retained.

Figure 6: Modified grassland.

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5.1.7 **Individual Trees**

5.1.7.1 There was a total of forty-one trees within the survey area, ten of which were located within the vegetated garden, and the rest located within the modified grassland habitat. The sizes of the trees ranged from small to very large. Most of these make up a line of trees which runs from east to west within the middle of the site in the modified grassland.

5.1.7.2 Tree species on site included Leyland cypress (*Cypress leylandii*), Crab apple (*Malus sylvestris*), Sycamore (*Acer pseudoplatanus*), Ash and Oak species.

5.1.7.3 All trees were inspected for potential roost features for bats. All trees were assessed as providing negligible suitability for bats due to a lack of features.

5.1.7.4 The individual trees are of ecological value, all providing suitable opportunities for nesting birds. It is understood that most trees are to be retained, with only a few being removed as part of the development proposals.

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Figure 7: Individual trees.

5.1.8 **Native Hedgerow**

5.1.8.1 Within the modified grassland habitat, there is a native hedgerow which runs east to west immediately north and parallel to the line of the trees.

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5.1.8.2 The hedgerow is solely composed of Hawthorn (*Crataegus monogyna*).

5.1.8.3 The hedgerow was sparse, providing limited opportunities for protected species. The survey was conducted in winter, so the hedgerow was barren and very exposed. Due to the regular heavy maintenance of the hedgerow, it is expected that in summer, the disturbance will prevent the hedgerow from being suitable for nesting birds. It is understood that the hedgerow is to be completely removed.

Figure 8: Native hedgerow.

5.1.9 **Ruderal/Ephemeral**

5.1.9.1 Within the southwestern corner of the site, in Section B of the modified grassland, there is a parcel of ruderal/ephemeral plant species, which is of medium sward height.

5.1.9.2 Species within this habitat included bramble and common nettle.

5.1.9.3 This habitat is of good ecological value as the tall vegetation supports suitability for species such as hedgehog, amphibians and reptiles. This habitat is to be completely removed as part of the development.

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Figure 9: Ruderal/ephemeral.

5.1.10 **Bramble Scrub**

5.1.10.1 There is a parcel of bramble scrub located within the southeastern section of the site along part of the northern boundary. The composition of this habitat was of medium density with a medium sward height.

5.1.10.2 This habitat is of good ecological value providing opportunities for hedgehog, reptiles and amphibians. This habitat is to be removed as a part of the development.

Figure 10: Bramble scrub.

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5.2 Desktop Survey Results

5.2.1 Consultation with West Yorkshire Ecology Service (WYES) returned a total of two hundred and fifty-six records for a 2 km radius from the central grid reference. The list of protected and notable species data records is available upon request. In summary, the following records were returned:

Table 3: Protected species returned by data search.

Species	Records	Notes
Bats	138	These include 64 records of common pipistrelle species (*Pipistrellus* sp.), 6 records of soprano pipistrelle species (*Pipistrellus* sp.), 10 records of unspecified pipistrelle species (*Pipistrellus* sp.), 22 records of noctule (*Nyctalus noctula*), 7 records of lesser noctule (*Nyctalus noctula*), 7 records of brown-long eared (*Plecotus auritus*), one record of Daubenton's bat (*Myotis daubentonii*), one record of natterer's bat (*Myotis nattereri*), 20 unspecified bat species (*Vespertilionidae* sp.). These records ranged from 2004 to 2024. Out of these records 39 were for roosts. The closest of these was a record of a roost from 2010 of a *Myotis* bat.
Badger	~	Any records of Eurasian badger have been omitted from this report due to the sensitivity of the data. Full consideration has been given to any information returned.
Hedgehog	1	One record of hedgehog was returned from 2017.
Otter	1	One record of Eurasian otter was returned from 2019.
Water vole	0	No records of European water vole (*Arvicola amphibius*) were returned.
Amphibians	19	These include 4 records of common frog (*Rana temporaria*), 3 records of common toad (*Bufo bufo*), 7 records of smooth newt (*Lissotriton vulgaris*) and 2 records of palmate newt (*Lissotriton*

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		vulgaris). These records were from 2000 to 2019. Three records of great crested newt were returned from 2000 to 2006. Due to the distance from site, these records are considered irrelevant.
Reptiles	0	No records of any reptiles were returned.
Other	~	The remaining records pertain largely to bird, plant, invertebrate and other mammal records.

5.2.2 Consultation with MAGIC returned no European Protected Species Mitigation Licenses within the search radius.

5.2.3 Consulting Natural England's eDNA pond surveys for District Level Licensing (England) revealed no records of great crested newt. The site is not recorded as falling within any Risk Zone for GCN.

5.3 Designated Sites

5.3.1 Consultation with MAGIC and WYES revealed the location of one Statutory Designated Site within the search radius.

Table 4: Statutory Designated sites within the search radius.

Site Name	Designation	Distance from Site (m)
Sunny Bank Ponds	Local Nature Reserve (LNR)	1900 m North

5.3.2 Consultation with WYES revealed the locations of eight Non-Statutory Designated Sites within the search radius.

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Table 5: Non-Statutory Designated sites within the search radius.

Site Name	Designation	Distance from Site (m)
Briery Bank Wood	Local Wildlife Site (LWS)	733 m South
Community of the Resurrection, Mirfield	LWS	1845 m Northwest
Covey Clough Wood and Hepworth Wood	LWS	1291 m South
Gregory Spring	LWS	1479 m South
Jordan Wood and Oliver Wood	LWS	1516 m Southeast
Liley Wood	LWS	1612 m South
Sunny Bank Ponds	LWS	2025 m North
Whitley Wood	LWS	1116 M South

5.3.3 There are multiple parcels of Priority Habitats within the 2 m search radius from the site. These are solely deciduous woodland, the closest of which is approximately 150 m south of the survey area at its closest point. This compartment is approximately 3.37 hectares and is adjacent to the railway line. Due to the location of the Priority Habitat and the scope of the works for the development, no impacts are anticipated on any Priority Habitats.

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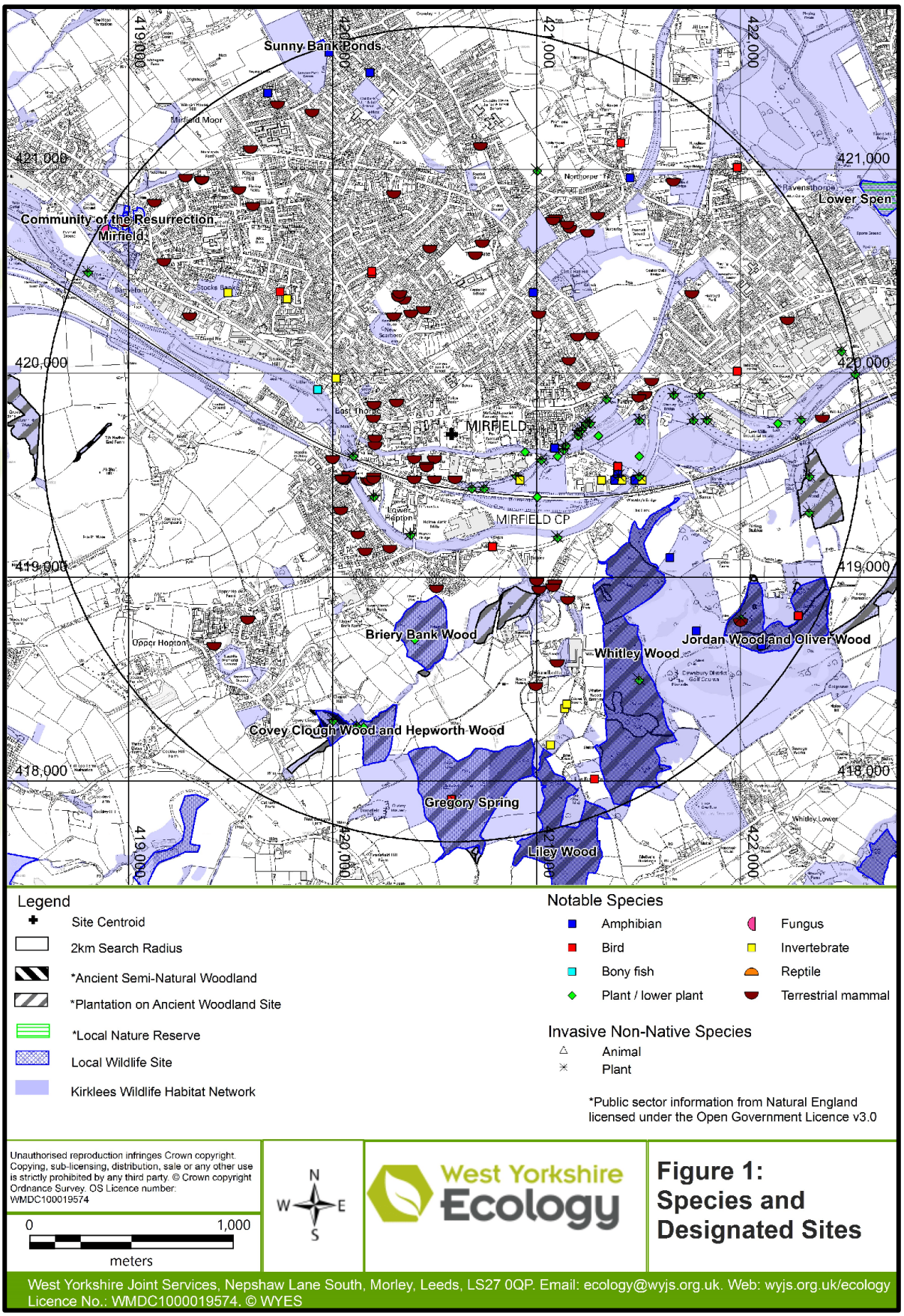
Figure 11: Statutory and Non-Statutory Designations within 2 km search radius.



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5.4 Protected Species

5.4.1 Breeding Birds

5.4.1.1 No presence of breeding birds was recorded at the time of survey. No nests, active or defunct, were recorded during the survey.

5.4.1.2 The individual trees, bramble scrub and shrubs in the garden are all suitable for nesting birds. The hedgerow may provide limited opportunities for nesting birds.

5.4.1.3 A few trees are proposed to be removed in the line of trees, the bramble scrub is to be completely removed and replaced by garden and modified grassland, and the shrubs in the garden area are to be removed. Precautionary measures are included in this report to ensure there are no impacts to birds using these habitats during the nesting bird season.

5.4.2 Bats

5.4.2.1 No presence of bats was recorded at the time of survey. No field sign evidence suggesting the use of the site by bats was recorded at the time of survey.

5.4.2.2 The two buildings on site were inspected for features which could support roosting bats. Building A, the converted stable, was assessed as **low** roost suitability due to the condition of the building, providing a few suitable crevices in the walls for opportunistically roosting bats. The fissures identified are deep enough for crevice-dwelling bats, and the stone bricks provide suitable thermal conditions for bats, providing a consistent environment. Building B, the hall house, was assessed as having **moderate** roost suitability as the roof was warped in multiple places, causing multiple tiles to be lifted. These gaps were large enough to provide roosts underneath the tiles and potentially provide access to the roof void.

5.4.2.3 All the trees within the survey area were inspected for features which could support roosting bats. All of the trees were assessed as providing **negligible** suitability for roosting bats due to the lack of suitable features.

5.4.2.4 The survey area offers good foraging and commuting habitat for bats, with the large open habitat of the grassland accompanied by the line of trees in the middle of the site. There is also suitable habitat adjacent to the site which includes the woodland to the east and the canal immediately south of the site.

5.4.2.5 The works are not anticipated to fragment the foraging or commuting habitat for bats; much of the treeline and open grassland habitat is to be retained. Precautionary measures have been included in this report to mitigate any indirect

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impacts on bats using the boundary features of the site for roosting and commuting opportunities. Further survey effort has been recommended in this report regarding works to the buildings within the survey area.

5.4.3 **Eurasian Badger**

5.4.3.1 No presence or field signs of Eurasian badger were recorded within the site.

5.4.3.2 The site offers residual suitable habitat for badger. The woodland east of the site provides some suitable habitat for badger. Therefore, the survey area may provide some suitable commuting opportunities for badger.

5.4.3.3 Precautionary measures are included in this report to ensure there are no residual impacts on badger commuting through the site.

5.4.4 **European Hedgehog**

5.4.4.1 No presence of hedgehog was recorded within the site. No field sign evidence suggesting the use of the site by hedgehogs was recorded at the time of the survey.

5.4.4.2 Section B of the modified grassland provides a suitable habitat for hedgehog due to the tall sward and dense parcel of ruderal/ephemeral habitat. The bramble scrub also provides good habitat suitability for hedgehog.

5.4.4.3 These habitats are to be cleared as part of the development. To ensure there are no impacts on hedgehogs, vegetation clearance must be done under the precautionary measures included in this report. Additionally, precautions have been included in this report to ensure hedgehogs are not indirectly impacted during the works.

5.4.5 **Aquatic / Riparian Mammals**

5.4.5.1 No presence or field sign evidence of Eurasian otter or European water vole was recorded during the survey.

5.4.5.2 There are no suitable habitats for these species recorded on site. The canal immediately south of the survey area has hard stone banks, which are completely unsuitable for water voles. The canal may provide transient opportunities for Eurasian otter, however, only one record was returned from the data search. This record was of one dead Otter next to the River Calder, which connects to the canal, 1.8 km from the site.

5.4.5.3 A Construction Environmental Management Plan (CEMP) has been

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recommended to ensure that there are no impacts to the watercourse from the development, such as pollution. This will account for any residual impacts on species using the watercourse, such as transient otters.

5.4.6 Herptiles

5.4.6.1 No field sign evidence suggesting the presence of amphibians or reptiles was recorded on site during the survey.

5.4.6.2 Section B of the modified grassland offers a suitable habitat for reptiles and offers some opportunities for amphibians. There are no adjacent ponds which would provide suitable aquatic habitat for amphibians; the surrounding habitat is exposed and urban. The canal, ten meters from the survey area, connects to the woodland east of the site. The canal provides some commuting opportunities for amphibians which could access the site. On site, the varied sward height in the grassland, in the ruderal/ephemeral and bramble scrub, all provide suitable refugia for reptiles and amphibians. The garden paths on site provide basking opportunities for reptiles.

5.4.6.3 There are no ponds within 500 m of the survey area, the wider landscape is urban, and the roads and watercourses act as likely barriers to movement for great crested newt. There is minimal suitable refugia on site for great crested newt. Therefore, it is determined that great crested newt is likely absent from the survey area.

5.4.6.4 Precautionary measures to be taken during vegetation clearance of these habitats have been included in this report to ensure that no reptiles are harmed during the works. Measures have also been included to ensure there are no indirect impacts on reptiles from other aspects of the works.

5.4.7 Other species

5.4.7.1 The site does not support suitable habitat for any other protected or significant fauna, such as barn owl (*Tyto alba*), white-clawed crayfish (*Austropotamobius pallipes*), or dormouse (*Muscardinus avellanarius*). No impacts towards these species are anticipated.

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6 Conclusions

6.1 Recommendations for Further Surveys / Mitigation

6.1.1 Birds

6.1.1.1 It is recommended that, where feasible, the works, which include vegetation clearance and development of the site, take place outside the breeding bird season. The breeding bird season extends from March to September (inclusive).

6.1.1.2 The trees, scrub and shrubs on site all provide suitable opportunities for nesting birds. To ensure that there are no impacts to breeding birds, any works to take place during the breeding bird season will need to adhere to the following precautions:

- Any works planned within the breeding bird season are subject to a breeding bird check prior to the commencement of works. This includes checks of the suitable habitats identified within the survey area.
- A breeding bird check will be valid for forty-eight hours, given the highly mobile nature of birds; the impactful works should be fully completed within this period, following a breeding bird check.
- Should birds of any species be recorded nesting, breeding, or attempting to breed, then a suitable buffer should be erected as advised by a suitably qualified ecologist. The buffer should be retained until breeding has ceased and the young have fledged.

6.1.2 Bats

6.1.2.1 The buildings on site were assessed as having potential for roosting bats. Building A, the converted stable, has **low** roost suitability and Building B, the hall house, has **moderate** roost suitability.

6.1.2.2 Further survey effort is required to determine how bats are using these buildings. One dusk emergence survey will be required of Building A, and two dusk emergence surveys will be required of Building B. The first survey for Building B should be conducted mid-way through May, and the second survey should be conducted one month after.

6.1.2.3 The trees, particularly the line of trees within the survey area, contribute to a suitable foraging and commuting habitat on site. There is a line of trees outside the survey area immediately adjacent to the western boundary of the site near the modified grassland parcel. A lighting scheme should be implemented into the

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recommended CEMP to ensure there is no light splay during the works or within the post-development onto the trees on site, particularly the line of trees within the site and outside the site.

6.1.3 Construction Environmental Management Plan

6.1.3.1 To ensure there are no impacts on the canal approximately ten meters south of the survey area and potential protected species it supports, a Construction Environmental Management Plan (CEMP) has been recommended.

6.1.3.2 The CEMP will include precautionary measures to be put in place during the works to ensure there are no impacts on the canal. Mitigation should focus on preventing pollutant run-off into nearby aquatic habitats.

6.1.3.3 The CEMP will also include the following precautions regarding the vegetation clearance of the modified grassland, ruderal/ephemeral, scrub and shrub within the survey area. These habitats have been determined to provide suitable opportunities for protected species, which include reptiles, amphibians, hedgehog and badgers.

6.1.3.4 Therefore, the following precautionary measures should be taken to ensure impacts are mitigated to these protected species:

- A hand-search will be required of the parcel of bramble scrub to ensure there are no protected species, particularly hedgehog, within this habitat prior to vegetation clearance.
- Vegetation clearance of the habitats outlined should be undertaken using hand tools.
- A two-stage cut will be required in the areas of grassland with tall sword height and the parcel of ruderal/ephemeral vegetation. This will ensure that any reptiles within these habitats can disperse during vegetation clearance. All arisings should be removed off site.
- Care should be taken to ensure no spoil or brash piles are created during the development works, as these could provide potential hibernacula and inadvertently attract species to the site.
- If any spoil or brash piles are created and left for over forty-eight hours, then a suitably qualified ecologist must be present to oversee the clearance of the piles, which should be done by hand.
- Any excavation pits created during the development should be covered

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overnight to ensure no species become trapped. Likewise, a suitable ramp can be installed within any open pits to ensure species can escape.

- If any species are found trapped within pits, advice should be sought from a suitably qualified ecologist.

7 Biodiversity Enhancement & Biodiversity Net Gain

7.1 In line with the National Planning Policy Framework (2024), the application should demonstrate biodiversity enhancements.

7.2 Due to the size of the site and location, applicable specific habitat enhancements could include:

- Bat and bird boxes should be integrated into the scheme design to enhance roosting provision over the wider site. In this case, each residential property could be designed with an integrated bat and bird box.
- Boundary features should be kept open and allow passage for small mammals such as hedgehogs.
- A planting scheme should be implemented within the scheme design to create greenspace within the site. Plantings should comprise native species of high biodiversity value.

7.3 In line with National Policy, developments submitted for planning after the 12th of February 2024, with some exceptions, are expected to achieve a 10% net gain or a minimum increase in site biodiversity value from the existing baseline assessment.

7.4 A baseline assessment of the site and condition assessment of the present habitats was conducted during the survey. The results of the baseline BNG assessment are available in the 'Environmental Statement. BNG Baseline' report issued in October 2025.

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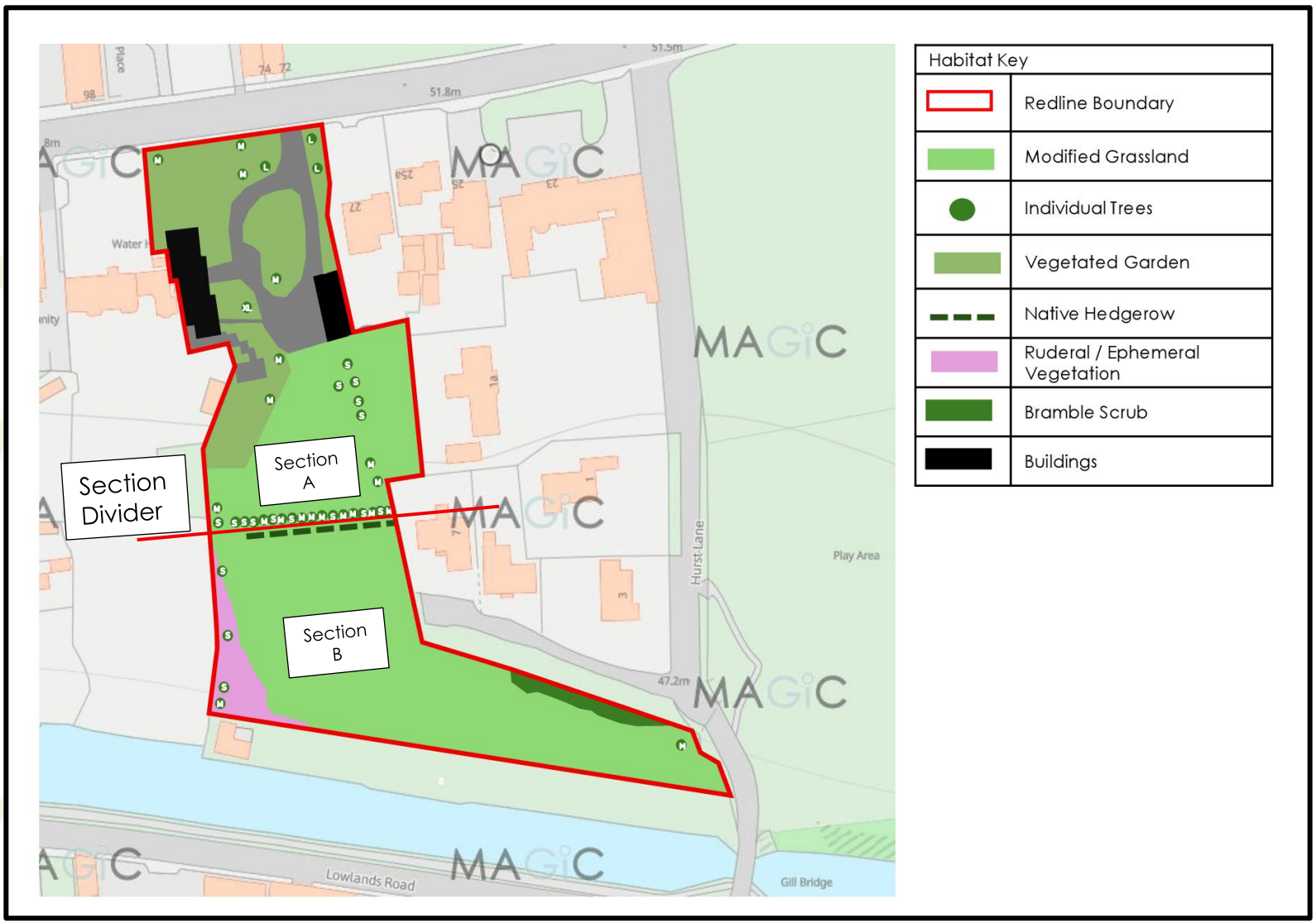
Appendix One: Phase one habitat map.



Appendix Three: Species list.

Vernacular	Taxon
Flora	
Barberry	*Berberis vulgaris*
Bramble	*Rubus fruticosus*
Cherry laurel	*Prunus laurocerasus*
Cleavers	*Galium aparine*
Cock's-foot	*Dactylis glomerata*
Common nettle	*Urtica dioica*
Common vetch	*Vicia sativa*
Crab apple	*Malus sylvestris*
Creeping buttercup	*Ranunculus repens*
Dove's-foot crane's-bill	*Geranium molle*
Foxglove	*Digitalis purpurea*
Great mullein	*Verbascum thapsus*
Hairy bittercress	*Cardamine hirsuta*
Hawthorn	*Crataegus monogyna*
Holly	*Ilex aquifolium*
Leyland cypress	*Cypress leylandii*
Mint species	*Mentha* sp.
Oak	*Quercus* sp.
Perennial ryegrass	*Lolium perenne*
Red fescue	*Festuca rubra*
Stinking iris	*Iris foetidissima*
Sycamore	*Acer pseudoplatanus*
Tutsan	*Hypericum androsaemum*
Viburnum species	*Viburnum sp.*
Wall cotoneaster	*Cotoneaster horizontalis*
Winter aconite	*Eranthis hyemalis*

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