

Preliminary Ecological Appraisal (PEA) - Survey Report

190 Rochdale Road, Middleton, Manchester

10 June 2024
For: Planning Prospects
Version 1



ecologylink

Ecology Link Ltd
61 Middlewatch
Swavesey
Cambridge
CB24 4RW

Tel: 01954 231375
www.ecologylink.com

Table of Contents

1. INTRODUCTION	4
BACKGROUND	4
SITE LOCATION AND DESCRIPTION	4
2. SCOPE OF WORKS	4
PHASE 1 HABITAT (ECOLOGY) SURVEY	4
DESK STUDY (BIOLOGICAL RECORDS DATA SEARCH)	5
BUILDINGS AND STRUCTURES SURVEY	5
SURVEY CONSTRAINTS.....	5
3. RESULTS.....	5
DESK STUDY.....	5
<i>DESIGNATED SITES</i>	5
<i>PROTECTED SPECIES</i>	6
PHASE 1 SURVEY – HABITATS.....	7
<i>HARD SURFACES (TARMAC, CONCRETE AND GRAVEL)</i>	7
PHASE 1 HABITAT SURVEY – PROTECTED SPECIES.....	8
<i>BADGERS</i>	8
<i>BARN OWLS</i>	8
<i>BATS</i>	8
<i>BIRDS</i>	10
<i>HAZEL DORMICE</i>	10
<i>GREAT CRESTED NEWTS</i>	10
<i>HEDGEHOGS</i>	11
<i>INVERTEBRATES</i>	11
<i>OTTERS</i>	11
<i>REPTILES</i>	12
<i>WATER VOLES</i>	12
<i>WHITE-CLAWED CRAYFISH</i>	12
<i>OTHER SPECIES</i>	12
<i>INVASIVE SPECIES</i>	13
4. EVALUATION AND RECOMMENDATIONS	13
HABITATS	13
TREES	13
PROTECTED SPECIES.....	14
ECOLOGICAL AND BIODIVERSITY ENHANCEMENTS – PLANNING CONSIDERATIONS.....	15
BIODIVERSITY NET GAIN.....	16
5. FURTHER HABITAT AND SPECIES SURVEYS	17
6. APPENDICES	17
APPENDIX 1 – HABITAT MAP	
APPENDIX 2 – LEGISLATION	
APPENDIX 3 – BAT ROOST ASSESSMENT CRITERIA & CLASSIFICATION	

By their very nature, ecological surveys can only assess a site or particular species at a set point in time, thus providing a snapshot of the environment and not a definitive evaluation. Every effort has been taken to provide an accurate assessment of the habitats or species surveyed. However, presence and population sizes of species can change over time and the accuracy of this report will be affected by time and seasonality.

This document has been prepared by Ecology Link Ltd for the sole use of the client.



1. Introduction

Background

- 1.1 Ecology Link Ltd. was commissioned by Planning Prospects, on behalf of their client (Enterprise Rent-a-Car-UK), to undertake a Preliminary Ecological Appraisal (PEA) survey. The survey area included three redundant buildings, storage structures and associated hard surfaced areas ('the site'). The purpose of the survey was to assess the conservation value of the site, including the likely presence of rare or protected species. Any features, habitats or species constituting potential constraints to the development were identified, with recommendations for appropriate further surveys and mitigation.
- 1.2 **Development Proposal:** Conversion of the building to office space; the demolition of 'lean-to' units to enable the erection of wash bay; and external area for car parking.

Site Location and Description

- 1.3 **National Grid Reference Location** (approx. centre of site): SD87360691.
- 1.4 **Site Address:** 190 Rochdale Road, Middleton, Manchester. M24 2QA.
- 1.5 **Site boundaries:**
 - North – Rochdale Road and residential housing.
 - South – Clough Road and residential housing.
 - East – Residential housing.
 - West – Recent housing development.
- 1.6 **Site Habitats:** The site included the following dominant habitats:
 - Hard surfaces (tarmac, gravel).
 - Buildings.
 - Ruderal.

Wider Landscape Context: Urban area surrounded by residential housing.

2. Scope of Works

Phase 1 Habitat (Ecology) Survey

- 2.1 An extended Phase 1 habitat survey was conducted on the 22nd May 2024.
- 2.2 The survey was undertaken by Jon Panter, an experienced ecologist and full member of Chartered Institute of Ecology and Environmental Management (CIEEM).
- 2.3 The weather conditions were wet. A risk assessment was completed and all appropriate PPE worn. The client granted access to the site, including all buildings and structures.
- 2.4 An evaluation was made of the habitats within the site and where possible, of the immediate surrounding environs. Methodology followed the standard survey criteria as set out in the JNCC Survey Handbook (2010) and a Phase 1 map (Appendix 1) was produced to show the distribution of habitats and plant communities across the site. Target Notes (TN) were used if required, to give greater detail for specific features (Appendix 1). The information gathered provided a record

of the existing wildlife habitats present, in accordance with the habitat codes within the JNCC guidelines. The potential for the site to support protected species was also assessed, some of which may be protected by UK or European legislation (Appendix 2).

Desk Study (Biological Records Data Search)

- 2.5 A purchased desk-based data search was not deemed necessary, due to the small size and existing nature of the site with lack of natural habitats, with only minor proposed changes to an already developed site. There is limited scope for any previous records for this site to have been supplied to data holders, due to lack of habitat and previous survey requirement. A review of freely available online resources was undertaken for designated sites, habitats and species records, which included using the Multi-agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk). The data collated will inform us of the impacts (if any) of the proposed works, ensuring that suitable mitigation and protection measures are considered.
- 2.6 Any specific protected species potential will be assessed through further surveys if required.

Buildings and Structures Survey

- 2.7 Any buildings or other structures (if present) on site were surveyed. This comprised both an external visual inspection and internal search (where safety and access allowed) to look for signs of, or potential for, protected species (most likely to include bird and bat species). These were assessed against Bat Roost Classification Criteria (Appendix 3). Indicators of use could include live animals, carcasses, droppings, feeding remains and nesting material. A ladder, high-powered torch, angled mirror and handheld thermal imaging unit were available for use as required.

Survey Constraints

- 2.8 There were no constraints. The survey was completed during the optimal survey season (April to September). It is felt that an accurate record of the habitats and species present was recorded. It may be that additional plant species were present, which were not visible at the time of survey, but not to the extent it would alter the habitat classifications or importance identified. It is important to note that species diversity and dominant plant assemblages may increase or change throughout the season.

3. RESULTS

Desk Study

- 3.1 The following sites and species records were returned from a search of online records within a 1km radius of the site (reduced radius due to the site's location, connectivity and condition). Only species likely to be impacted within or in close proximity to the site have been summarised within this report. Records more than ten years old have been omitted.

Designated Sites

- 3.2 No internationally or nationally important sites were present within 1km. No statutory protected sites were identified. No non-statutory protected sites were identified.
- 3.3 No Priority Habitats were identified within the search radius. Hopwood Woods Nature Reserve was located approximately 200m to the east of the site. It is unclear if there is any formal designation.

Protected Species

3.4 Records were identified or notably absent for the following protected species within a 500m radius of the site (reduced area of interest due to barriers to dispersal and lack of habitat). The majority of records were associated with Whit Brook, which was connected to Hopwood Woods.

3.5 There were no records of Natural England European Protected Species (EPS) Licence Applications (such as for great crested newts, bats, hazel dormice).

European Protected Species:

3.6 No records of great crested newt (GCN) or Class Survey Licence Returns were identified from within 250m of the site. No amphibian records were identified.

3.7 There were no bat records.

WCA Schedule:

3.8 No reptile records were identified.

Mammals:

3.9 There was one record of hedgehog, from Hopwood Woods.

3.10 No badger records were returned from within 500m of the site.

3.11 No water vole or otter records were identified. However, it is highly likely that otters are utilising Whit Brook and possibly water voles.

Birds:

3.12 56 bird species records were listed, although none from within the site. The majority were typical urban species, with the majority from the vicinity of Whit Brook and Hopwood Woods.

Plants:

Eight plant records were provided, including records of Japanese knotweed along the brook, a Schedule 9 non-native invasive species.

Invertebrates:

3.13 37 species in total, with the search return dominated by macro groups such as dragonflies, butterflies and moths.

Other Species:

3.14 No other records of species of note were found.

Phase 1 Survey – Habitats

- 3.15 The following habitat classifications were recorded on site.

Hard Surfaces (tarmac, concrete and gravel)

- 3.16 Tarmac covered the majority of the site (Photo 1). This was intact, forming an access drive through the site from Rochdale Road to Clough Road.
- 3.17 Non-tarmac ground surrounding the outbuildings and former storage areas were a mix of concrete and stone scalping's. These surfaces were in poor repair, with a range of ruderal species colonising. There was a mix of; old materials; rubbish; and general debris.
- 3.18 It held **no Ecological Value** to the site.

Ruderal

- 3.19 Ruderal development had occurred across the exposed areas of the site. This included areas of rubble and soil deposited on the eastern area of the hard surface (Photo 2). This had been allowed to colonise over a long period of time but was still considered temporary vegetation in nature.
- 3.20 Species included cock's-foot (*Dactylis glomerata*), broad-leaved dock (*Rumex obtusifolius*), herb Robert (*Geranium robertianum*), garlic mustard (*Alliaria petiolata*) and spear thistle (*Cirsium vulgare*). These were recorded across the areas of stone scalping's, where little vehicle movement or trampling has occurred.
- 3.21 Although ruderal species composition was good, it was typical of early urban successional development, spreading from marginal areas across hard and broken surfaces. It held **Negligible Ecological Value** to the site. It does not warrant further habitat assessment.

Scrub

- 3.22 Woody species colonisation included butterfly bush (*Buddleia* sp.) and bramble (*Rubus fruticosus*). The latter species had colonised from adjacent land (Photo 3), spreading across the boundary fences and onto the concrete. An area of Japanese knotweed (*Fallopia japonica*) was recorded on the southwestern side of Building 1 (Appendix 1 - TN1). This is discussed in the Invasive Species section.
- 3.23 It held **Negligible Ecological Value** to the site.



Photo 1: hard surface areas across the site.



Photo 2: ruderal colonisation across marginal areas.



Photo 3: bramble scrub colonising from adjacent land.

Phase 1 Habitat Survey – Protected Species

Badgers

- 3.24 Badgers (*Meles meles*) are protected under the Protection of Badgers Act 1992. This legislation makes it an offence to kill or injure a badger, damage or destroy a sett, or disturb a badger whilst it occupies a sett.
- 3.25 The site and a 30m buffer (where accessible), were surveyed for badger evidence, such as setts, latrines, pathways, footprints, snuffle holes and badger hairs. Any setts recorded were classified according to published criteria (Harris, et al., 1989).
- 3.26 There was no suitable sett building habitat for badgers on site. The developed site held no areas for sett excavation or foraging. There were no voids underneath any of the buildings. No evidence of paths, prints, foraging, latrines or excavations were recorded.
- 3.27 This species needs no further consideration or survey.

Barn Owls

- 3.28 All breeding wild birds are protected under Part 1 of the Wildlife and Countryside Act (WCA) (1981, as amended). Offences include taking, damaging or destroying a nest or eggs. Barn owls (*Tyto alba*) receive special additional protection under Schedule 1 of the WCA. Barn owls (and other Schedule 1 species) are protected from any form of intentional or reckless disturbance when they are nesting or rearing dependent young. Any such activity constitutes an offence.
- 3.29 There were no roosting or breeding opportunities for barn owls within the site. The buildings were largely of unsuitable construction with no access points into the structures. The site and immediately adjacent land did not provide any suitable hunting habitat.
- 3.30 This species needs no further consideration or survey.

Bats

- 3.31 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); under Schedule 2 of the Conservation of Habitats and Species Regulations 2017; as European Protected Species (EPS). This makes it an offence to kill or injure a bat, or damage or destroy a place of shelter or protection.
- 3.32 The potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists Good Practice Guidelines 4th Ed. (Collins, 2023).
- 3.33 Buildings or structures (if present) were assessed for suitability to support roosting bats according to the classifications (Appendix 3). Any potential roosting features (PRFs) and roost access points were highlighted. Evidence of bats was also searched for externally and internally where access allowed. Equipment available to aid inspection included binoculars, a ladder, a handheld thermal imaging unit and a high-powered torch. The surveyor looked for bats, droppings, staining, scratch marks and feeding remains in any potentially suitable locations.
- 3.34 Trees (if present) were also assessed for potential bat roosting features such as rotten cavities, woodpecker holes, cracked or split limbs, and lifted bark. Trees displaying potential features were assigned a level of suitability for roosting bats (Appendix 3).
- 3.35 The site was also assessed for overall value for foraging, commuting or dispersing bats (i.e. how well the habitats on the site link to other offsite habitats and in particular the presence of sheltered linear habitats on the site).

- 3.36 Features were assigned either a negligible, low, moderate or high potential to support roosting bats (Appendix 3). These are summarised below, which includes a building or tree reference, description of feature, any evidence identified and a photographic record.

Buildings

- 3.37 The buildings on site were a mix of brick buildings and prefab 'lean to sheds'. The latter (B2 and B3) will be demolished as part of the redevelopment. Building 1 will be refurbished, with the roof being replaced.

- 3.38 **B1** - The was a detached single-storey building (Photo 4), being former offices and tattoo parlour, which was now empty. Externally the structure was in good repair, with the pitched slate roof intact and all soffits and windows in sound condition.



Photo 4: external view of building 1, showing intact slate roof and brickwork.

- 3.39 Internally the loft was sound and remained as left when the building was vacated. The loft area was fully accessible and the floor space partly boarded (Photo 5). The eastern half had a false ceiling and could be viewed to the roof through removed tiles. No evidence of bats or birds was recorded, with no potential access to the loft space for either group, due to intact roofing membrane, timber soffits, eaves and mortar pointing.
- 3.40 Externally, there were no signs of access points for bats, nesting birds, or evidence of old bird nests.



Photo 5: internal view of boarded loft space being used for storage. Roof lining membrane was intact.

- 3.41 **It held negligible bat roosting and bird nesting potential.**

- 3.42 **B2** – redundant offices and workspace. Although unoccupied for some time, it was still in good condition (Photo 6). The brick wall and flat roof were intact with no evidence of access points for bats or birds. Internally there were false ceiling tiles with approximately 0.5m vertical space above before the sheet metal roof. This held negligible roosting opportunities for bats, even if they were able to enter the building.

- 3.43 **It held negligible bat roosting and limited bird nesting potential.**

- 3.44 **B3** – was a series of interconnected wood and corrugated metal lean-to structures (Photo 7). These were in poor condition and largely empty. There was no potential for bats to roost due to the metal corrugated sheet roofing and side panels with no lining. However, there was some historical evidence of pigeons roosting in one



Photo 6: External view building 2.

area of the structure. There were some limited opportunities for birds to nest on the outside of the building.

- 3.45 **It held negligible bat roosting potential. It held low bird nesting potential.**

Trees

- 3.46 There were no trees on site. A maturing third-party sycamore was within an adjacent garden. This held no bat roosting potential.

Birds

- 3.47 All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981, as amended. It is illegal to take, damage or destroy the nests of wild birds whilst being built or in use.
- 3.48 Buildings, other structures and vegetation were assessed for suitability to support any species of nesting bird. This included searching for evidence of nesting or roosting barn owls or other raptors.
- 3.49 The site held limited habitat for birds due to the hard surfaces and generally unsuitable or inaccessible buildings, with no access opportunities (apart from Building 3). The woody bramble vegetation did provide some limited potential for nesting. No active or old nests were recorded where the vegetation could be searched at the time of survey.
- 3.50 No bird species were encountered on site during the survey apart from pigeons. A number of blackbirds could be heard singing adjacent to the site. Many common, typically urban bird species are likely to use the site for foraging, roosting and possible nesting on occasion. This would be limited by the small size and nature of the site and not a key habitat resource in the locality.

Hazel Dormice

- 3.51 Dormice (*Muscardinus avellanarius*) are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. This makes it an offence to kill or injure dormice, or damage or destroy a place of shelter or protection.
- 3.52 Dormice favour ancient and mature woodland with good structural diversity and understorey. Hedgerows can be important as dispersal routes, but only if well connected to optimal habitat. They require a diverse food source throughout their active season (May to Oct). Being very territorial, dormice usually remain within 80m of their nests. The hedgerows are of insufficient length and species composition and are not connected to nearby potentially suitable habitat. The existing hedgerows are to be retained under the current proposals.
- 3.53 There was no suitable habitat to support dormice within the site boundary.

Great Crested Newts

- 3.54 All life stages of the great crested newt (*Triturus cristatus*) and their habitats are protected under the Wildlife and Countryside Act 1981, as amended. They are also protected by the Conservation of Habitats and Species Regulations 2017 as a European Protected Species (Appendix 2).
- 3.55 The site was assessed for suitability to support amphibians, including great crested newts (GCN), common toad (species of conservation importance) and common frog. The assessment was undertaken in accordance with Gent & Gibson (2003) and Langton et al (2001).



Photo 6: External view building 3. Showing poor condition and lack of insulation or hidden cavities.

- 3.56 A search for all waterbodies on site or within a 500m radius was completed using OS maps and aerial imagery. A focus on those within 250m was applied, which is generally considered to be the critical distance of dispersal by most amphibians. Consideration was given to how well any identified waterbodies were connected to the site in terms of terrestrial habitat quality and features. Any obvious barriers to dispersal or unsuitable habitat were identified.
- 3.57 There was no suitable breeding habitat for GCN on site. The closest waterbody was a large lake within Hopwood Woods Nature Reserve (approx. 220m east from the site), with residential housing between the two. The physical barriers and lack of suitable habitat on site would make it very unlikely for amphibians to reach or utilise the site, even if present in the general vicinity.
- 3.58 The terrestrial habitat within the site provided no foraging or commuting opportunities. The debris rubbish piles provided potential hibernation opportunities but were not well connected to other suitable terrestrial habitat.
- 3.59 This species requires no further survey. Following best practice, consideration must be given to sensitive timing and a precautionary approach to the removal of the isolated debris piles.

Hedgehogs

- 3.60 Hedgehogs (*Erinaceus europaeus*) are listed under the Habitats and Species of Principal Importance in England. The Natural Environment and Rural Communities (NERC) Act came into force in 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. These are habitats and species that had been identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and which continue to be regarded as conservation priorities.
- 3.61 There was no evidence of hedgehogs on the site. The site was sub-optimal, providing negligible foraging across the hard surfaces and no direct links to any suitable vegetated commuting routes. There limited nesting features.
- 3.62 This species requires no further survey. Nevertheless, maintaining and creating access for hedgehogs must be included in the landscaping and fencing scheme. These are frequently referred to as 'Hedgehog Highways' in terms of mitigation.

Invertebrates

- 3.63 Many invertebrates are listed as UK Biodiversity Action Plan (UK BAP) priority species and as Species of Principal Importance (Section 41) of the Natural Environment and Rural Communities Act 2006.
- 3.64 The habitats were not considered of importance to notable invertebrates in the locality. Apart from through field observation during the walkover survey, the site was not evaluated in detail for the likely presence of important invertebrates. Surveys require specialist methods, timings and equipment and are seasonally restricted, with samples collected over a number of months and removed from site for expert identification.
- 3.65 The site provided sub-optimal habitat. The small area of gravel was not noteworthy. No notable habitats or plant species which may support invertebrates of interest in the locality were recorded.
- 3.66 This group needs no further survey.

Otters

- 3.67 In the UK, otters (*Lutra lutra*) are protected under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. This makes it an offence to kill or injure otters, or damage or destroy a place of shelter or protection.

- 3.68 The habitats within the site do not provide suitable habitat for this species
- 3.69 This species requires no further consideration or survey.

Reptiles

- 3.70 All British reptile species are afforded protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. This makes it an offence to kill or injure reptile species including grass snake (*Natrix helvetica*), adder (*Vipera berus*), common lizard (*Zootoca vivipara*) and slow-worm (*Anguis fragilis*).
- 3.71 The site was assessed for suitability to support reptiles with reference to the (Gent & Gibson, 2003) and Froglife Advice Sheet 10.
- 3.72 The site provided no suitable habitat for common lizards, slow-worms, adders or grass snakes. The lack of connectivity would make it very unlikely that reptiles would access the site.
- 3.73 This species requires no further consideration or survey.

Water Voles

- 3.74 Water voles (*Arvicola amphibius*) are protected by the Wildlife and Countryside Act 1981, as amended. This makes it an offence to kill or injure water voles, damage or destroy a place of shelter or protection, or disturb them in these places. They are also listed as a UK Biodiversity Action Plan (UK BAP) Priority Species.
- 3.75 Revised legislation now requires any development which will involve the displacement of water voles from their habitat or their relocation; to be completed either by a water vole survey class licence holding ecologist, or under a specific Natural England project licence.
- 3.76 This species requires no further consideration or survey.

White-clawed Crayfish

- 3.77 White-clawed crayfish (*Austropotamobius pallipes*) are protected by the Wildlife and Countryside Act 1981, as amended. This makes it an offence to kill or injure white-clawed crayfish, or damage or destroy a place of shelter or protection. They are also listed as a UK Biodiversity Action Plan (UK BAP) Priority Species.
- 3.78 There was no suitable habitat within the site to support white-clawed crayfish.
- 3.79 This species requires no further consideration or survey.

Other Species

- 3.80 No other species of note were encountered during the survey.

Invasive Species

- 3.81 The Wildlife and Countryside Act 1981 (as amended) is the principal legislation dealing with non-native species. It is illegal to release or allow escape into the wild, any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state, or is listed in Schedule 9 to the Act. It is also illegal to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 to the Act.
- 3.82 Japanese knotweed (*Fallopia japonica*) was recorded on site (Photo 6), with a stand in the northwest corner on the site (Appendix 1 - TN1). The spread appears to have been somewhat restricted by the buildings, hard standing and the western boundary wall. However, a small, isolated stand was recorded in the main area of the site (Photo 6).
- 3.83 This species will require removal prior to any ground or vegetation disturbance on site. This must be carefully carried out by a **specialist invasive species contractor** to ensure it is not spread further on or off site. Ideally, it should be treated in-situ by repeated spraying or stem injection with herbicide. The size of the stand would favour this treatment. If removed off site, then all potentially contaminated soil would need to be classed as hazardous waste under specialist licence to a certified landfill site which accepts Japanese knotweed infested spoil. The contractor will be able to advise which option is most suitable and a remediation strategy to ensure the site is cleared of this invasive species as far as practicable.



Photo 6: Japanese knotweed present on site. With a stand colonising in the main area of the site (below).



4. Evaluation and Recommendations

- 4.1 The following potential ecological constraints were identified within the site boundary. Each protected species requiring further investigation or survey has been listed, including the relevant legislation and rationale. Caveat – only species deemed likely to be present either within or immediately adjacent to the site have been considered further.

Habitats

- 4.2 No habitats warranting any specific protection were recorded.
- 4.3 The Japanese knotweed will need a bespoke eradication programme scheduled.
- 4.4 Overall, this was a small and previously developed site which was currently of negligible intrinsic value to wildlife. There is limited opportunity to enhance the site due to lack of space and poor connectivity to other habitats on an already fully developed semi-industrial site.

Trees

- 4.5 No trees were recorded on site.

Protected Species

- 4.6 The level of protection for different species varies, often being reviewed and amended. We have stated below, which laws protect which species. A summary of their specific protection has also been provided (Appendix 2).

Table 4.1. Protected Species Protection & Enhancement Recommendations

	No further survey recommendations or enhancements required
	Enhancements required
	Further species surveys or Ecological Clerk of Works (ECoW) required

SPECIES	RECOMMENDATIONS – Protection & Enhancement
Bats	No evidence of bats was found during the survey. All buildings held negligible PRF suitability.
	Recommendations: N/A
	Enhancements: N/A – The site has too much lighting within and around it, along with lack of foraging and dispersal habitat routes to consider the inclusion of bat boxes as a viable option.
Badgers	No evidence of badgers was found during the survey.
	Recommendations: No further surveys will be required.
	Enhancements: No specific enhancements required.
Barn Owls	No evidence of or suitability for barn owls was found during the survey.
	Recommendations: No further surveys will be required.
	Enhancements: No specific enhancements required.
Birds	No evidence of previous bird nesting was recorded during the survey.
	Recommendations: No further surveys will be required but building demolition any vegetation clearance must be undertaken outside of the breeding season (see Table 5.1 for full details on timings). The risk of nesting birds was extremely limited but they cannot be ruled out from the few developing boundary scrub patches and buildings.

SPECIES	RECOMMENDATIONS – Protection & Enhancement
	Enhancements: The proposed development should incorporate a minimum of 2 artificial bird boxes or bricks across the sites. Both boxes should be general purpose boxes which can accommodate a range of bird species.
Dormice	No evidence or suitable habitat to support dormice was found during the survey.
	Recommendations: No further surveys will be required.
	Enhancements: No specific enhancements required.
Great Crested Newts	No evidence, records or suitably connected habitat to support GCN was found during the survey. Presence of any amphibians is considered very unlikely.
	Recommendations: As a precaution, considerate timing of the removal of the debris piles to avoid the hibernation season for all amphibians (hibernating November to March inclusive).
	Enhancements: No specific enhancements required.
Hedgehogs	No evidence of, or suitable habitat was present to support commuting and foraging hedgehogs. The site is open at each entrances and will remain so with no proposal to erect new fencing.
	Recommendations: No further surveys will be required.
	Enhancements: No specific enhancements required. Hedgehog highway aps must be provided in any new boundary fencing.
Reptiles	No evidence or suitable habitat to support reptiles was found during the survey.
	Recommendations: No further survey will be required.
	Enhancements: No specific enhancements required.
Japanese Knotweed	Japanese knotweed was recorded on site and had begun to spread across the site, with 2 stands identified.
	Recommendations: The engagement of a specialist contractor to eradicate this species in line with current legislation.
	Enhancements: N/A

Ecological and Biodiversity Enhancements – Planning Considerations

- 4.7 The revised 2021 National Planning Policy Framework (NPPF) was updated again in 2023. The following policies contain elements of relevance to this report:

Policy 170: Planning policies and decisions should contribute to and enhance the natural and local environment by:

- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils.
- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services.
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Policy 175: When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- If significant harm 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.
- Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted.
- Opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.
- 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 reasons and a suitable compensation strategy exists.

Policy 180: Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- {...} limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

Biodiversity Net Gain

- 4.8 Biodiversity Net Gain (BNG) has been described as a measurable target for development projects where impacts on biodiversity are outweighed by a clear mitigation hierarchy approach to first avoid and then minimise impacts, including through restoration or compensation. Adhering to these Net Gain principles (i.e. pursuing all principles together) will help in under-pinning good practice for achieving and sustaining Net Gain (CIEEM, 2016).
- 4.9 The Defra Statutory Biodiversity Metric calculation spreadsheet will not need to be completed to quantify the BNG. Sites under 0.5ha qualify for assessment using the slightly simplified Small Sites Metric. In exceptional circumstances with either negligible value habitats (confirmed during the PEA) or only minor proposed changes with restricted impacts, completion of the Metric may not be required.

5. Further habitat and Species Surveys

- 5.1 The potential ecological constraints discussed in the recommendations, which require further assessment have been provided (Table 5.1), including key survey periods. **It is important to make a note of these restricted survey seasons** when planning your development schedule.

Table 5.1: Outline of Further Surveys and Timings

Species Group	Action / Survey Requirement	Optimal Timing (inclusive)
Breeding birds	All building demolition and vegetation removal outside of breeding season, unless an appointed ECoW confirms the works will not impact upon any potential nesting features.	September to February
Invasive Species	Engage a specialist contractor to eradicate this species prior to redevelopment.	TBC by appointed contractor
Biodiversity Net Gain (BNG)	Site specific BNG Metric assessment and Habitat Monitoring and Maintenance Report (if warranted); and biodiversity enhancement plan confirming location of all ecological enhancement features.	Full BNG Report upon completion of final building and landscape design, but pre-planning submission of Metric Tool spreadsheet in advance, to show provisional expected Biodiversity Units achievable.

6. Appendices

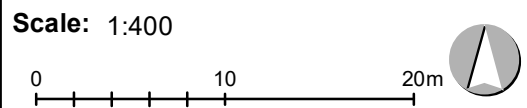
[Appendix 1 – Habitat Map](#)

[Appendix 2 – Legislation](#)

[Appendix 3 – Bat Roost Assessment Criteria & Classification](#)



- Legend
- Site boundary
 - Woody scrub
 - Scattered ruderal
 - Building
 - Hard standing
 - Wall
 - Target note



Title: Appendix 1 – Phase 1 Habitat

Client: Planning Prospects

Project: 190 Rochdale Road, Middleton

Date: May 2024



Appendix 2 – Legislation

This document contains a brief summary of key legislation relating to the protection of wildlife and habitats. Ecology Link Ltd. does not offer legal opinion or provide legal advice. The client is responsible for reviewing the full legislative documents from up-to-date original sources and should seek independent legal advice where appropriate.

European Protected Species

The Bern Convention (The Convention on the Conservation of European Wildlife and Natural Habitats) was adopted in 1979 and came into force in 1982. To implement this agreement, the European Community adopted the EC Habitats Directive in 1992. This directive has been transposed into UK legislation by the Wildlife and Countryside Act 1981 (as amended); and the Conservation of Habitats and Species Regulations 2017 (as amended). The Countryside and Rights of Way (CROW) Act 2000 strengthened the existing wildlife legislation in the UK. The UK has also signed the Bonn Convention (The Convention on the Conservation of Migratory Species of Wild Animals) and is therefore party to various agreements.

Bats

All species of British bats are fully protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and are also protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. They are listed under Appendix III of the Bern Convention and Annex IV of the EC Habitats Directive. Bats and their habitats are also listed under Appendix II of the Bonn Convention and therefore the UK has an obligation to protect their habitat, including links to important feeding areas.

Taken together, these pieces of legislation make it an offence to:

- Intentionally kill, injure or capture bats.
- Deliberately or recklessly disturb bats (whether in roost or not).
- Damage, destroy or obstruct access to bat roosts.

A roost is defined as “any structure which a bat uses for shelter or protection”. As bats tend to re-use the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

Dormice

Hazel dormice are classified as Lower Risk-Near Threatened by the International Union for the Conservation of Nature (IUCN) Red List, and as Vulnerable in the UK. They are listed under Appendix III of the Bern Convention and Annex IV of the EC Habitats Directive. In the UK they are fully protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and are also protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Taken together, these pieces of legislation make it an offence to:

- deliberately capture, injure or kill dormice.
- damage or destroy a dormouse resting place or breeding site.
- deliberately or recklessly disturb a hazel dormouse while it's in a structure or place of shelter or protection.
- block access to structures or places of shelter or protection.
- possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice.

Great Crested Newts

Great crested newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. At the European level they are protected under Annex IV of the EC Habitats Directive. All life stages of great crested newts are protected, including eggs, larvae, juveniles and adults.

Otters

Classified as Vulnerable under the IUCN Red List, they are also listed under Appendix II of the Bern Convention and Annex II of the EC Habitats Directive. They are also protected in the UK by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In order to minimise disturbance, it is usually recommended that a barrier should be erected to prevent works within 20m of an otter resting place. If the holt is known to be used for breeding, the radius should be extended to 30m.

Legislation Relating to European Protected Species

In relation to a development a person commits an offence if they:

- Deliberately capture, injure or kill a European Protected Species.
- Deliberately or recklessly disturb a European Protected Species in such a way as to be likely to significantly affect;
 - i. the ability of any significant group of animals to survive, breed, rear or nurture their young
 - ii. the local distribution or abundance of that species.
- Damage or destroy a breeding site or resting place (even if unintentionally or when the animal is not present).
- Intentionally or recklessly obstruct access to a structure or place used for shelter or protection.

All aspects of this legislation apply regardless of the life stage.

A European Protected Species Licence is required to carry out any activity that would otherwise involve committing an offence.

The species above are those most frequently encountered. For a full list of current EPS in the UK please refer to the Conservation of Habitats and Species Regulations 2017, available at www.legislation.gov.uk. Lists of animals and plants can be found in Schedules 2 and 5, respectively.

Other Protected Species

Nesting Birds

All wild birds are protected under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, in the UK it is an offence to:

- Take, damage or destroy the nest of any wild bird whilst it is being built or in use.
- Kill, injure or take any wild bird.
- Take or destroy the eggs of any wild bird.

To avoid committing an offence, no works should be conducted on a habitat that is being used by nesting birds. Nesting is deemed to be over when the young have fully fledged. Certain species which are listed on Schedule 1 of the WCA receive special protection. In these cases any form of intentional or reckless disturbance when they are nesting or rearing dependent young constitutes an offence.

Reptiles

Common lizard, slow-worm, adder and grass snake are all protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), as updated by the Countryside & Rights of Way (CROW) Act 2000. They are covered against intentional injuring, killing or selling. To avoid prosecution, wherever works will impact upon these species there must be evidence to show that every reasonable effort was made to avoid breaking the law – including proof of adequate surveys and mitigation plans. Mitigation measures should, ideally, be agreed with Natural England.

Only the sand lizard and smooth snake are fully protected under the Wildlife and Countryside Act (Section 9) and the Conservation of Habitats and Species Regulations (Regulation 9). These protect them against:

- Killing, injuring or capturing.
- Keeping, transporting or selling.
- Damaging or destroying a breeding or resting site.
- Intentionally obstructing access to a place used for shelter.

This means that both the animals and their habitats are protected. These species mainly occur in specific nature reserves, mostly in the south and south-west of England.

Badgers

Badgers are fully protected in the UK by the Protection of Badgers Act 1992 and by Schedule 6 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- Willfully kill, injure, take, possess or cruelly treat a badger.
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett.
- Disturb a badger while it is occupying a sett.

Disturbance could include digging or scrub clearance within 30m of a sett and therefore advice should be sought before conducting such activities. Badgers are mainly protected due to persecution in the past and are not rare.

Water Vole

Water voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). Water voles are protected against intentional killing, capture or injury and intentional or reckless disturbance, obstruction, damage or destruction of their burrows. Displacement works (translocation) can now only be undertaken under ecologist direction (Class Licence holder) or with a specific Natural England licence.

White-clawed Crayfish

The white-clawed crayfish is protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Schedule 9 makes it an offence to release, or allow to escape into the wild, all non-native crayfish. It is listed under Appendix III of the Bern Convention, Under Annexes II and V of the EC Habitats Directive, and is classed as Globally Threatened by the IUCN. It is also a Priority Species under the UK Biodiversity Action Plan (BAP).

Invertebrates

Many invertebrates are listed as UK Biodiversity Action Plan (BAP) Priority Species and as Species of Principal Importance (Section 41) of the Natural Environment and Rural Communities Act 2006 (NERC-S41) (see below). Although such species do not receive protection under criminal law, their presence is a material planning consideration and consequently:

- Planning policies and decisions should “promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species...” (taken from NPPF, 2023).

- Local Planning Authorities will use the list to identify the species and habitats that require specific consideration in dealing with planning and development control, recognising that under the NPPF the aim of planning decisions should be to avoid or minimise impacts to biodiversity.

Invasive Species

The Wildlife and Countryside Act 1981 (as amended) is the principal legislation dealing with non-native species. The WCA has been amended in relation to England and Wales by various pieces of legislation, including: the WCA Variation of Schedule 9 Order 2010; the Natural Environment and Rural Communities Act 2006; and the Countryside and Rights of Way Act 2000. Section 14(1) of the WCA makes it illegal to release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain, is not a regular visitor to Great Britain in a wild state, or is listed in Schedule 9 of the Act. It is also illegal to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 of the Act.

Wild Mammals (rabbits, foxes, deer, etc.)

Mammal species that are not of primary conservation importance do receive a degree of protection within the Wild Mammals (Protection) Act 1996. This includes offences which have implications for site clearance (particularly in the case of burrowing species like rabbits and foxes), such as crushing or asphyxiation of any wild mammal with intent to cause unnecessary suffering. To avoid offences under this legislation, it is recommended that where these species are present a method statement is produced, aimed at careful excavation of (or exclusion from) burrows.

The Wildlife and Countryside Act 1981 (as amended)

Protected birds, animals and plants are listed in Schedules 1, 5, 6, and 8 of the Wildlife and Countryside Act.

Schedule 1

The Act makes it an offence to intentionally kill, injure or take any wild bird, their eggs or their nests. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring or taking birds; restricts the sale and possession of captive bred birds; and sets standards for keeping birds in captivity.

Schedule 5

The Act makes it an offence to intentionally kill, injure, take or possess, or trade in any wild animal listed in Schedule 5. It also prohibits interference with places used for shelter or protection, or the intentional disturbance of animals occupying such places. The Act also prohibits certain methods of killing, injuring or taking wild animals.

Schedule 6

The Act makes it an offence to kill or take animals by certain methods. Such methods include: self-locking snares, bows, crossbows, explosives (other than firearm ammunition) or live decoys. Species listed are also protected from the use of: traps, snares or nets; electrical devices for killing or stunning; poisonous, poisoned or stupefying substances, or any other gas or smoke; automatic or semi-automatic weapons; devices for illuminating a target or sighting devices for night shooting; artificial lights, mirrors or other dazzling devices; sound recordings; and mechanically propelled vehicles in immediate pursuit.

Schedule 8

The Act makes it an offence to pick, uproot, trade in or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (abbreviated to the Habitats Regulations) consolidate all of the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. The 1994 Regulations transposed the EC Habitats Directive into national law in England and Wales. In Scotland the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (relating to reserved matters) and the 1994 Regulations. The Regulations provide for the protection of European Protected Species; and the designation, protection and adaptation of planning and other controls for the protection of European Sites. Under the Regulations, competent authorities (e.g. Ministers, government departments, public bodies or persons holding public office) have a general duty, in the exercise of any of their functions, to regard the EC Habitats Directive.

Following the UK's exit from the European Union, effective from 1 January 2021, the Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to the Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019)¹ to give effect to European legislation in England and Wales.

Since January 2021, all sites previously part of the Natura 2000 network in England and Wales now form part of the **National Sites Network (NSN)** and are referred to as such in this report.

The NSN includes the following sites:

- Special Area of Conservation (SACs), candidate SACs and Sites of Community Importance; and
- Special Protection Areas (SPAs) and potential SPAs.

Sites designated under the Convention on Wetlands of International Importance (Ramsar sites) do not form part of the NSN. Ramsar sites may overlap with SACs and SPAs and may be designated for the same or different species and habitats. All Ramsar sites remain protected in the same way as SACs and SPAs.

Schedule 2: European protected species of animals; Schedule 3: Animals which may not be taken or killed in certain ways; Schedule 4: European protected species of plants.

The UK Biodiversity Action Plan List of Priority Species and Habitats

In 2005, the UK Biodiversity Action Plan (BAP) priorities were reviewed and, after adoption by the Governments of all four UK administrations, a new list called the UK List of Priority Species and Habitats was published in 2007. The species and habitats on this list help guide the conservation actions being made in the UK, as part of the UK contribution to the Convention on Biological Diversity.

Biodiversity Action Plans (BAPs) set out actions for the conservation and enhancement of biological diversity at various spatial scales. The UK Biodiversity Action Plan (UK BAP) 1994 – 2010 has been superseded by the UK Post-2010 Biodiversity Framework covering the period 2011 - 2020².

UK BAP priority habitats and species were used to form the basis for the statutory list of habitats and species of 'principal importance for the conservation of biodiversity in England' under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

¹ Department for Food and Rural Affairs (DEFRA) (2021). Changes to the Habitats Regulations 2017 (online) available at <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>. Last accessed March 2023.

² JNCC (2012). UK Post-2010 Biodiversity Framework (2012–2019). Online: <https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc>. Last accessed on: 28.03.23.

Local Biodiversity Action Plans (LBAPs) are a means for delivering UK Biodiversity Action Plan targets at a local level.

The Natural Environment & Rural Communities (NERC) Act 2006

Priority Species:

The 1981 Act is supplemented by the Natural Environment and Rural Communities Act 2006 (NERC). The NERC Act 2006 requires public bodies, including local authorities, 'to have regard to the conservation of biodiversity in England' when carrying out their normal functions.

The list of species of 'principal importance for the conservation of biodiversity in England' (Section 41) guides public bodies in implementing their duty – the 'Biodiversity Duty'. The Secretary of State for Transport therefore must consider the impact on biodiversity of the proposed development.

The Hedgerows Regulations 1997

The Hedgerows Regulations were made under Section 97 of the Environment Act 1995 and came into effect in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside. Under the Regulations it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. The Regulations specify the criteria to be used by the local planning authority in determining which hedgerows are important. The criteria relate to the value of hedgerows from an archaeological, historical, landscape, wildlife or amenity perspective. Local planning authority permission is normally required before removing hedges that are at least 20m in length, more than 30 years old, or contain certain plant species. If a hedgerow is at least 30 years old and qualifies under any one of the criteria, then it is important.

The National Planning Policy Framework

The National Planning Policy Framework (NPPF) came into force on the 27 March 2012, being updated in 2021 and 2023.

It sets out the government's planning policies for England and how these should be applied within the planning system. The policies relating to ecology and biodiversity are detailed in Chapter 15 - 'Conserving and enhancing the natural environment'.

Relevant policies include the following:

Policy 170: Planning policies and decisions should contribute to and enhance the natural and local environment by:

- Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils.
- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services.
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Policy 175: When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- If significant harm 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.
- Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted.
- Opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

- 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 reasons, and a suitable compensation strategy exists.
- Development on land within or outside a Site of Special Scientific Interest (SSSI), and which is likely to have an adverse effect on it should not normally be permitted.

Policy 180: Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- {...} limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

Appendix 3 - Bat Roost Assessment Criteria & Classification (adapted from Collins, 2023)

Suitability	Description of Potential Roosting Features (PRFs)	Commuting & Foraging Habitat
NEGLIGIBLE	Negligible roosting features on site that are likely to be used by bats.	Negligible habitat features on site likely to be used by foraging or commuting bats.
LOW	A structure with one or more features that could be opportunistically used by individual bats. Unlikely to support maternity or hibernation roosts. A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Habitat which could be used by small numbers of commuting bats such as a gappy/defunct hedgerow, unvegetated stream/ditch, isolated scrub (not well connected to surrounding landscape by another habitat, or lone tree (not in parkland situation).
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 (unlikely to support roosts of high conservation status). A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat. These trees are unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees, scrub, watercourses, grassland or interlinked gardens.
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. A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat which is well connected to the wider landscape that is highly likely to be used regularly by commuting bats. Habitats such as tree lined watercourses, river valleys, hedgerows, grazed parkland, lines of trees, broadleaved woodland and woodland edges. Site is close to or connected to known roosts.

Company Directors

Jonathan Panter

Mobile: 07506 703540

j.panter@ecologylink.com

Helen Parish

Mobile: 07917 208040

h.parish@ecologylink.com

Ecology Link Ltd. | Registered Office: 61 Middlewatch, Swavesey, Cambridge CB24 4RW
Tel: 01954 231375 | Registered in England No. 07015978 | VAT registration No. 982 3666 82
www.ecologylink.com



ecologylink