

LAND WEST OF NEW STREET, LITTLEBOROUGH

Preliminary Ecological Appraisal Report

July 2022



Report Control Sheet

Project Name: Land West of New Street, Littleborough
Project Reference: CW20-144
Report Title: Preliminary Ecological Appraisal Report
Report Reference: CW20-144 RPT 001
Printing Instructions: Print at A4 Portrait, Double Sided.

<i>Rev</i>	<i>Date</i>	<i>Description</i>	<i>Prepared</i>	<i>Reviewed</i>	<i>Approved</i>
/	29/03/2022	Draft report sent to Client for comment.	OC	KB	OC
1	25/07/2022	Final	OC	OC	OC

Collington Winter Environmental Ltd disclaims any responsibility to Russell Homes Ltd and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with Russell Homes Ltd and according to the proposed plans supplied by the client or the client's agent upon commencement of the project.

The contents of this report are valid at the time of writing. As the ecological value of a site is constantly evolving and changing, if more than twelve months have elapsed since the date of this report, further advice must be taken before reliance upon on the contents. Notwithstanding any provision of the Collington Winter Environmental Ltd Terms & Conditions, Collington Winter Environmental Ltd shall not be liable for any losses (howsoever incurred) arising as a result of reliance by the client or any third party on this report more than twelve months after the report date.

This report is confidential to Russell Homes Ltd and Collington Winter Environmental Ltd accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

EXECUTIVE SUMMARY

Site Address	New Street, Littleborough
Grid Reference	SD 92617 15803
Approximate Site Area	3.4ha
Current Site Use	Currently the site forms an area of recreational grassland and a large pond that has public footpaths throughout and an adjacent horse paddock that has access for the horses to the site.
Designated Sites within Zone of Influence	The site partially falls within the Impact Risk Zone of; Rochdale Canal Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). The boundary of this site is located approximately 300m to the southeast of the site on New Street, Littleborough; South Pennine Moors SSSI, SAC and Special Protected Area (SPA) (Phase 2). The boundary of this site is located approximately 2km to the east of the site on New Street; Healey Dell Local Nature Reserve (LNR). The boundary of this site is located approximately 4.3km to the west of the site on New Street.
Notable Habitat Features	Notable habitats present included neutral improved grassland, neutral semi-improved grassland, broadleaved woodland, hedgerow, and scrub.
Notable Species Applicable to the Assessment	• Bats (Potential roosting, foraging, and commuting) • Breeding birds. • Common amphibians • Badger • Hedgehog
Mitigation Recommendations	Recommendations relating to long-term management of habitats have been outlined. Other recommendations relating to fauna have also been outlined with the aim to introduce/enhance habitats/features to be of greater value for ecology.
Recommended Further Surveys and Assessment	An updated badger walkover to search for further setts within the site.
Recommended Ecological Enhancements	• Bat and bird boxes could be placed on the new buildings / retained trees. • Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features within the site. • The inclusion of 'hedgehog highways' to facilitate movement across the site.

CONTENTS

1	INTRODUCTION.....	4
1.1.	SCOPE & PURPOSE	4
1.2.	LOCATION	4
1.3.	OBJECTIVES	4
2	METHODOLOGY	5
2.1.	DESK STUDY	5
2.2.	VEGETATION AND HABITAT ASSESSMENT	5
2.3.	FAUNA ASSESSMENT	5
2.4.	BAT ACTIVITY ASSESSMENT	5
2.5.	HABITAT SUITABILITY INDEX	6
2.6.	SURVEY LIMITATIONS	6
3	SURVEY RESULTS.....	7
3.1.	SITE CONTEXT	7
3.2.	DESIGNATED SITES	7
3.3.	HABITATS	7
3.4.	SPECIES	8
4	MITIGATION RECOMMENDATIONS.....	12
4.1.	DESIGNATED SITES	12
4.2.	HABITATS	12
4.3.	SPECIES	13
5	FURTHER SURVEYS AND CONCLUSION	16
5.1.	BADGER	16
5.2.	CONCLUSION	16
6	BIBLIOGRAPHY	17

1 INTRODUCTION

1.1. SCOPE & PURPOSE

1.1.1. Collington Winter Environmental Ltd was commissioned by Russell Homes to undertake a Preliminary Ecological Appraisal (PEA) at New Street, Littleborough. This report has been prepared to support a planning application at the site. The proposals are for a residential development within the site. A large area of Public Open Space is proposed to the northeast of the site. In addition, the broadleaved woodland is to be retained.

1.1.2. The author of this report is Olivia Collington, BSc (Hons), MEnvSc, CEnv, Director at Collington Winter Environmental Ltd. Olivia is highly experienced undertaking PEA's and providing pragmatic advice for residential schemes.

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location. The site is located on the southwest of the town of Littleborough within the metropolitan area of Rochdale. The Rochdale Canal lies less than 200m from the site boundary to the southeast and Hollingworth Lake less than a kilometre beyond that. The immediate surrounding area is urbanised as it stretches towards Littleborough and beyond that within 5km is dominated by agricultural land.

Figure 1.1 Site Location



1.3. OBJECTIVES

1.3.1. The objectives of the Preliminary Ecological Appraisal are as follows:

- Identify the major habitats present
- Ascertain the presence or potential presence of any legally protected or notable species or habitats
- Identify any mitigation or further survey required and opportunities for strategic wildlife enhancements and long-term management.

2 METHODOLOGY

2.1. DESK STUDY

2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:

- Obtaining local records of notable species and locally designated sites within 1 km of the site from Greater Manchester Local Records Centre (GMLRC) obtained on 24/03/2022.
- Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
- Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
- Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- On site consultation with the landowner which provided valuable information regarding historic land use and known species and habitats present within the site.

2.1.2. Please note, a lack of records for a species does not confirm absence. Instead, local surveys may not have been undertaken or records not submitted to GMLRC.

2.2. VEGETATION AND HABITAT ASSESSMENT

2.2.1. An Ecological Appraisal of the site was undertaken by Olivia Collington BSc (Hons), MEnvSc, CEnv. The survey was undertaken on the 17th March 2022. The weather was clear and sunny.

2.2.2. The walkover survey was undertaken broadly in line with standard methodology as detailed in “JNCC Handbook for Phase 1 Habitat Survey” (2010). The assessment is undertaken with consideration of methodology as per “Preliminary Ecological Appraisal” (CIEEM, 2018).

2.2.3. A UK HAB map has been produced and is presented in the Appendix of this report. The mapping is based on the “The UK Habitat Classification User Manual” (2020), though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

2.3. FAUNA ASSESSMENT

2.3.1. A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.

2.3.2. The searches broadly included the following:

- Assessment of waterbodies on site and within 250m of the site boundary, and terrestrial habitats for suitability to support notable amphibians.
- Searches for field signs of, and habitat suitability for bats.
- Suitability of habitats to support reptiles, and searches for incidental field signs.
- Searches for field signs of badger (*Meles meles*), including setts, mammal paths, snuffle holes, badger hair and latrines to indicate activity.
- Searches of watercourses for signs of water vole (*Arvicola amphibius*), white-clawed crayfish (*Austropotamobius pallipes*) and otter (*Lutra lutra*), and assessment of habitat availability for the species.
- Assessment of the suitability of habitats to support notable birds and recording any field sightings of birds during the walkover.
- Assessment of the sites ability to support notable invertebrates and flora.
- Searches for non-native invasive species.

2.4. BAT ACTIVITY ASSESSMENT

2.4.1. The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 3rd edition (Collins, 2016). The categorisation within this report is based on that set out in Table 5, which is used as a basis for determining the requirement for further surveys and/or mitigation.

Table 2.2 Assessment Criteria for Bat Activity Value

Suitability	Description
Negligible	No features on site suitable for use by commuting and foraging bats.
Low	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.

2.5. HABITAT SUITABILITY INDEX

- 2.5.1. A large standing body of water due to a historic blocked culvert is present on site, with no further ponds located within 250 m of the site boundary. As great crested newts' upper dispersal limit is generally considered to be up to 250 m from a waterbody (though occurrence of greater distances does exist), ponds beyond this distance were not assessed due to limited connectivity (English Nature, 2001).
- 2.5.2. The body of water underwent a Habitat Suitability Index (HSI) assessment following the methodology set out in ARG UK Advice Notice 5 (Oldham et al., 2010). Ten habitat suitability indices were assessed and inputted into the HSI equation, which generates a score between 0 and 1. The calculated score corresponds to the estimated pond suitability for great crested newt.

2.6. SURVEY LIMITATIONS

- 2.6.1. This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.
- 2.6.2. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable, or not visible due to a number of factors including the time of year the survey was carried out.
- 2.6.3. March is a suboptimal time for carrying out a Phase 1 Habitat Surveys due to being outside of the optimal plant growing season. Therefore, it is likely that some plants are present on the site but were not evident at the time of the survey and were not recorded. This is not considered to be a significant constraint with regards to the general Phase 1 Habitat Survey results as the habitats remained consistent with previous surveys, and due to the size and location of the site and limited extent of the habitats, it is considered very unlikely that any rare or priority plant species were missed.
- 2.6.4. The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.
- 2.6.5. The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

3 SURVEY RESULTS

3.1. SITE CONTEXT

- 3.1.1. The site is located within a mixed rural and urban area on the southside of the town of Littleborough, which lies to the northwest of Rochdale. Agricultural fields are located to both the north and the south, where urbanised areas border the site to the east and west. A dog park is located in the adjacent field to the west and the Hollingworth Lake water activity centre is located 1 km to the southeast.
- 3.1.2. In addition, Rochdale Canal is located approximately 200m south of the site, and is anticipated to be of importance of a range of flora and fauna.

3.2. DESIGNATED SITES

- 3.2.1. Whilst the site itself doesn't fall within any designated statutory sites, there are several designations within 5km of the site boundary and the site falls within the Impact Risk Zones of:
- Rochdale Canal Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). The boundary of this site is located approximately 300m to the southeast of the site on New Street, Littleborough. This site is designated The Rochdale Canal contains important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species floating waterplantain (*Luronium natans*).
 - South Pennine Moors SSSI, SAC and Special Protected Area (SPA) (Phase 2). The boundary of this site is located approximately 2km to the east of the site on New Street. This site is designated due to being the largest area of unenclosed moorland within West Yorkshire and contains the most diverse and extensive examples of upland plant communities in the county. Extensive areas of blanket bog occur on the upland plateaux and are punctuated by species rich acidic flushes and mires.
 - Healey Dell Local Nature Reserve (LNR). The boundary of this site is located approximately 4.3km to the west of the site on New Street. This site is designated due to the industrial archaeology present on the land as well as the wildlife that has since taken advantage of the area.
- 3.2.2. No other statutory sites are located within 5km of the site boundary.

3.3. HABITATS

- 3.3.1. Please refer to Drawing 20-144 – 001 for the UK HAB map for the site. Photographs of the site are presented in the Appendix.

MODIFIED GRASSLAND

- 3.3.2. The majority of the site was comprised improved grassland fields used by grazing horses. It was dominated by perennial ryegrass (*Lolium perenne*) with occasional, common daisy (*Bellis perennis*), white clover (*Trifolium repens*), creeping thistle (*Cirsium arvense*), yarrow (*Achillea millefolium*) and common dandelion (*Taraxacum officinale*). Hard rush (*Juncus inflexus*) was present in large areas of the site, particularly associated with the wetter areas surrounding the waterbody. Himalayan balsam (*Impatiens glandulifera*) shoots were also present within these areas.

OTHER NEUTRAL GRASSLAND

- 3.3.3. An area of poor semi-improved grassland was present to the east of the site, where the grass appeared longer with more structure than the rest of the site which was more intensively grazed. Well-worn paths were present throughout the grassland area indicating frequent recreational use. Species present in this area included perennial ryegrass with the addition of cock's-foot (*Dactylis glomerata*), with occasional broad leaved dock (*Rumex obtusifolius*), white clover, creeping buttercup (*Ranunculus repens*) and yarrow.

PONDS (NON-PRIORITY)

- 3.3.4. A waterbody was present to the centre of the site which appeared to be decreasing in extent (with shrinking water levels leaving exposed banks). The waterbody is understood to be connected to a culvert and will drain down.

Negligible emergent vegetation was observed within the water, and a small number of wetland birds were observed using the feature. Marginal vegetation present included greater reedmace (*Typha latifolia*), hard rush, yellow flag iris (*Iris pseudacorus*), Himalayan balsam, willow (*Salix sp.*) and hawthorn (*Crataegus monogyna*).

BRAMBLE SCRUB

- 3.3.5. Areas of dense scrub were present along the boundary of the woodland to the north of the site, as well as a patch along the western boundary of the site. The dense scrub was comprised of bramble (*Rubus fruticosus*) with occasional common nettle (*Urtica dioica*).

BROADLEAVED WOODLAND AND TREES

- 3.3.6. The broadleaved woodland to the north of the site comprised semi mature and over mature willow (*Salix sp.*), sycamore (*Acer pseudoplatanus*) and poplar (*Populus alba*) trees. The understorey was sparse and where present comprised Himalayan balsam and common nettle. Numerous areas of rubbish and debris were located within the woodland.
- 3.3.7. Around the southern boundary of the site, mature sycamore, ash (*Fraxinus excelsior*), horse chestnut (*Aesculus hippocastanum*) and holly (*Ilex aquifolium*) trees were present. Further mature sycamore trees were present to the south of the waterbody, along the western boundary and southeastern boundary of the site.

NATIVE HEDGEROW

- 3.3.6. A single hedgerow (H1) was present to the centre of the site. It was unmanaged and resembled a tree line. The species present included holly, hawthorn, sycamore and elder (*Sambucus nigra*).

RUNNING WATER

- 3.3.8. A wet stream originates within the woodland to the north of the site. At this aspect, the stream is unmanaged with debris present within the watercourse. The banks are very shallow with limited vegetation. The stream appears to dry, and then reappear to the south of the woodland where it extends along H1 and alongside the waterbody. At this aspect, the stream widens and deepens, however the water quality is poor appearing brown with heavy vegetation along its length which included common reed (*Phragmites australis*), hogweed (*Heracleum sphondylium*) and hard rush (*Juncus inflexus*).

OFFSITE HABITATS

- 3.3.9. Residential housing including residential gardens is located to the north, west and east of the site.
- 3.3.10. To the southeast of the site, a working farm is present comprising stables. Habitats within this area include a large muck pile.
- 3.3.11. To the south of the site, further improved grassland fields are present which extend down towards the river habitats.

3.4. SPECIES

FLORA

- 3.4.1. The data search returned several records of notable vascular plants within the local area relating to watercourse and terrestrial habitat including floating water plantain and knotgrass (*Polygonum sp.*).
- 3.4.2. The majority of the site comprised modified grassland with limited floristic diversity. The site is understood to be regularly grazed by horses. It is not anticipated any notable species of flora will be present within the site.
- 3.4.3. Floating water plantain was not recorded within the water features within the site. The habitats present were assessed as sub optimal for the species.

INVERTEBRATES

- 3.4.4. The data search returned multiple records of notable invertebrates within the local area. Species included (but not limited to); cinnabar (*Tyria jacobaeae*), small phoenix (*Ecliptopera silaceata*), white ermine (*Spilosoma lubricipeda*), and ghost (*Hepialus humuli*).
- 3.4.5. The other neutral grassland, pond and bramble scrub are anticipated to be of value, providing a variation of habitats for invertebrate lifecycles. Overall, notable invertebrates may utilise the site for foraging but are not thought to utilise the site in significant numbers due to the heavily grazed management of the site.

AMPHIBIANS

- 3.4.6. The data search returned no records of great crested newt (*Triturus cristatus*) and additionally, no Great Crested Newt Natural England Mitigation Licence were observed within 1km of the site boundary, based on Magic. The data search did however return results for common toads (*Bufo bufo*) within the area.
- 3.4.7. A single pond (WB1) was located within the site. WB1 was a large waterbody which appeared to be decreasing in size, with large areas of the pond footprint being dry. It is understood that the pond is formed due to a blocked culvert, which has recently been repaired, and therefore it is anticipated that WB1 will further decrease in size after the writing of this report. Previous eDNA surveys of the pond, including the most recent testing undertaken in June 2021 has concluded the absence of great crested newts on site. Please refer to the Appendix for full results.
- 3.4.8. No further suitable ponds were located onsite or within 250 m of the site boundary. New SuDS ponds were being created within the residential development east of New Street, however these were not assessed as suitable. As great crested newts' upper dispersal limit is generally considered to be up to 250 m from a waterbody (though occurrence of greater distances does exist), great crested newts are not anticipated to be present on site (English Nature, 2001).
- 3.4.9. The site comprised habitats which may provide suitable foraging resources and cover for common amphibians such as common toads. WB1 and nearby ornamental water bodies may be located within nearby residential gardens which may provide suitable conditions for breeding common amphibians.
- 3.4.10. Great crested newts are concluded as absent from the site, though common amphibians may occur on site.

REPTILES

- 3.4.11. The data search returned no records of reptile species within the local area. The site provides limited value for reptiles, given the majority of the site comprised modified grassland, which lack the structure and habitat quality to support the species group. Whilst no records relating to the species were returned during the data search.
- 3.4.12. Reptiles are not anticipated to be on site and are not considered further.

BIRDS

- 3.4.13. A large number of notable records of birds were returned during the 1km data search. The majority of which related to the watercourses nearby. Records relevant to the site included (not limited to); peregrine (*Falco peregrinus*), bullfinch (*Pyrrhula pyrrhula*), curlew (*Numenius arquata*), dunnoek (*Prunella modularis*), kingfisher (*Alcedo atthis*), little ringed-plover (*Charadrius dubius*) and barn owl (*Tyto alba*).
- 3.4.14. Breeding bird surveys were undertaken on the site by Collington Winter Environmental Ltd in 2021 (Report RefCW20-144 R1). The survey identified 28 bird species within the site. These included three species under the Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act including starling (*Sturnus vulgaris*), dunnoek (*Prunella modularis*) and song thrush (*Turdus philomelos*). Five birds of Conservation Concern (BoCC) Amber included, mallard (*Anas platyrhynchos*), redshank (*Tringa tetanus*), black-headed gull (*Chroicocephalus ridibundus*) and swift (*Apus apus*) were identified. The survey identified two BoCC Red including starling and song thrush.

BATS

- 3.4.15. Multiple records of bats were returned within 1km of the site boundary, relating to both activity and roosts. Species included soprano pipistrelle (*Pipistrellus pygmaeus*), unidentified pipistrelle (*Pipistrellus sp.*), common pipistrelle (*Pipistrellus pipistrellus*), unidentified myotis species (*Myotis sp.*) and daubenton's bat (*Myotis daubentonii*).
- 3.4.16. All trees within the site were subject to a PRA. Four trees on the south border of the site alongside Stubley Mill Road were evaluated as having low roost potential. In addition, the woodland to the north of the site was collectively assessed as providing low bat roosting potential.
- 3.4.17. Bat Activity Surveys were undertaken by Collington Winter Environmental Ltd in 2021. Common pipistrelle were the only recorded species during the species and were found to be associated with all habitats on site. Common pipistrelle are a generalist species and therefore known to associate with numerous different habitats to find prey. They are common and widespread across the UK and the sites value is considered to be of site value.
- 3.4.18. It is considered that only a moderate number of bats are within the immediate application at any given time. These bats were recorded foraging onsite for long durations, most notably around the residential gardens off Whitegate facing horse paddocks. No immediate features to support roosting bats were recorded onsite itself. Intermittent bat activity was recorded along the woodland edges and hedgerow corridor by individual common pipistrelle bats.
- 3.4.19. As expected, bat activity appeared to decrease throughout the season, though the site was found to have continued value for foraging and commuting bats. The residential gardens off Whitegate facing the horse paddocks along with the hedgerows in the centre of the site possess the highest value for bats. The water body would also be a suitable feature for foraging purposes and potentially a drinking resource though that was not observed during the surveys.
- 3.4.20. The site has the potential to support roosting bats whilst the habitats were assessed as supporting low numbers of foraging bats.

BADGER

- 3.4.21. Please refer to confidential badger report for details of badger.

WATER VOLE

- 3.4.23. Two records of water vole were obtained within 1km of the site boundary. On site however the only running water was a very small stream to the north of the site. The banks depth and height were deemed too shallow to be suitable for burrow construction. Additionally, there was limited vegetation for foraging and cover was observed along the banks. It is also anticipated that the water level will fluctuate frequently which water voles will often avoid.
- 3.4.24. The waterbody within the site lacked true banks which could facilitate burrowing for water vole and was considered unsuitable for the species.
- 3.4.25. As such water vole are deemed likely absent from site.

OTTER

- 3.4.26. Several records of otters were obtained within 1km of the site boundary; however, no evidence of otter was noted within the site.

3.4.27. The site is located approximately 50m from the river at its closest point. The waterbody on site is not stocked with fish and is not considered to be a foraging resource for the species. No motivation is present for otter to commute from the river corridor onto site. The site is surrounded by residential housing and used by dog walkers, further reducing likelihood of otter using the site. No otter holts or potential otter holts were located within the woodland habitat to the north of the site.

3.4.28. Otter holts are deemed likely absent from site.

OTHER TERRESTRIAL MAMMALS

3.4.29. Three records of west European hedgehog (*Erinaceus europaeus*) were located within the 1km search area during the data search. Given the habitats present within the site including woodland and scrub, it is anticipated that hedgehog could be present within the site.

NON-NATIVE INVASIVE SPECIES

3.4.30. No records of non-native invasive flora species were returned in the data search within the 1km search area.

3.4.31. Himalayan balsam was recorded throughout the site during the survey, including high density at the pond edges as well as within the woodland habitats to the north of the site.

4 MITIGATION RECOMMENDATIONS

4.1. DESIGNATED SITES

- 4.1.1. The site is located within the Impact Risk Zone for the Rochdale Canal SSSIs, approximately 400m from the SSSI itself. There are a lack of anthropogenic barriers, such as the residential areas, between the SSSI and the site itself. As such, there is a potential risk of increase in pollution in association with the proposed construction phase, whilst other potential impacts include an increase of visitors to the designated site. The potential impacts may negatively impact the integrity of the nearby designated sites.
- 4.1.2. The site does not fall into the criteria listed on Magic.gov.uk for requiring HRA consultation with Natural England as it is a residential scheme with less than 100 units proposed.
- 4.1.3. A Construction Environment Management Plan (CEMP) has been prepared and submitted as part of the planning application.
- 4.1.4. The CEMP details measures to avoid, minimise or mitigate any potential negative effects caused by construction practices on the environment on and surrounding the site including:
- The control of run-off from areas of arisings to prevent any pollutants/contaminants entering nearby waterbodies.
 - Appropriate measures to suppress dust during hot, dry and/or windy conditions.
 - Excavations should be sealed overnight or should have at least one shallow-sloping side to allow any animals that may fall in to escape.
 - Measures to reduce visitor pressure on the SSSI.
 - An ecologist should be contacted for advice should any protected species be discovered during construction.

4.2. HABITATS

GENERAL

- 4.2.1. The landscaping scheme is to incorporate native species of value to wildlife. It is recommended that fruiting and flowering species be provided within amenity areas to encourage invertebrates to the site.
- 4.2.2. It is recommended that further scrub be allowed to develop in order to protect the woodland habitats and deter trampling from members of the public.
- 4.2.3. A large area of Public Open Space is proposed to the northeast of the site and it is recommended that this contain areas of wildflower grassland as well as allowing tall herbs to develop to provide structure and habitats for wildlife. Further input will be provided alongside undertaking the Biodiversity Net Gain Assessment.

SCATTERED TREES AND HEDGEROWS

- 4.2.4. The Tree Survey Report (TRE/P3NL) outlines recommendations for trees and hedgerows. Generally, the protection measures of retained trees will be through used of temporary protective demarcation fencing to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.
- 4.2.5. The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.
- 4.2.6. It is recommended that replacement tree planting at a 1:3 ratio is required to compensate for loss of any trees. It is recommended that the planting comprises native species and species known to be of value for the attraction

of wildlife. This will include native species which fruit and flower.

WATERBODY

- 4.2.7. The waterbody is the result of a historically blocked culvert in the southeastern part of the site. This culvert has now been unblocked and the site is now drying and has reduced in extent. However, the open water habitat present should seek to be replaced on site through the development to ensure the continued availability of habitat for wetland bird species and common amphibians. This could be through the provision of the SuDS features which could be enhanced for the species, with the inclusion of an area to hold water all year round.

BIODIVERSITY NET GAIN

- 4.2.8. In accordance with emerging policy, the site should seek to deliver a net gain for biodiversity. A separate calculation and report have been undertaken and is submitted alongside the planning application. The calculation found that the site can achieve a 13.26 % net gain in biodiversity.
- 4.2.9. An appropriately worded condition should be attached to the planning permission for the production of a Landscape and Ecological Management Plan (LEMP), to secure the habitat creation and management over the required 30-year period.

4.3. SPECIES

AMPHIBIANS

- 4.3.1. Great crested newts are concluded to be absent from the site and no further consideration for the species is required. However, there is a possibility that common amphibians such as common toad may be present on site.
- 4.3.2. It is recommended that consideration of amphibian presence during habitat management is considered. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the impacted area.
- 4.3.3. The waterbody, if found to contain water at the time of clearance, should be drained using a sump with filter to avoid harming common amphibians. These mitigation measures can be adopted through the production of the recommended CEMP.

BREEDING BIRDS

- 4.3.4. Nesting birds were identified utilising the site, during the breeding bird surveys completed in 2021. .
- 4.3.5. The woodland to the north is to be retained, and it is recommended that this habitat is enhanced through removal of unwanted tree stock and planting of ground flora to provide foraging resources for birds. It is recommended that defensive planting of scrub or hedgerow is planted on the woodland edge to deter residents entering the woodland and will provide suitable foraging and breeding resources. A LEMP should be produced to outline the long-term management of the retained habitats with the aim to be of value for local fauna.
- 4.3.6. It is understood that the pond would require removal to facilitate development. As the pond was identified as being of value for breeding birds, it is recommended that a replacement pond should be created. A drainage pond may be utilised as a replacement, but it should be designed to hold water all year round and comprise a clay basin to allow marginal vegetation to establish. The pond should be planted with a range of native aquatic fauna to provide foraging and breeding resources.
- 4.3.7. Proposed non-developable areas should include species rich wildflower areas to maintain foraging opportunities for priority species, such as starling and dunnock. It is recommended that wildflower areas are managed appropriately for breeding birds, particularly foraging house sparrow, yellowhammer, skylark and dunnock in the long term. This should include the seeding of specific seed producing and invertebrate encouraging wildflowers, and a suitable management regime to be detailed in a relevant Landscape Management Plan.

- 4.3.8. In addition, nest boxes should be incorporated within the proposed development, including integrated and non-integrated boxes. The boxes should be selected to target passerine species identified on site such as swifts. The bird boxes will be installed on aspects facing between north and east with unrestricted access to the entrance holes. The boxes will not be installed near to security lighting, and locations with the least disturbance have been selected. All boxes will be installed a minimum of 2-4 m from ground level.
- 4.3.9. Any vegetation management should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably qualified ecologist should undertake a nesting bird check no more than 48 hours prior to removal. If nesting activity is observed, the nest(s) should be left in situ until the young have fledged. A suitable buffer will be maintained and determined by the ecologist.

BATS

- 4.3.10. Four trees were identified as providing low bat roosting potential (as shown on the UKHab Map) and should undergo reasonable avoidance measures if they require removal. Based on current proposals, this would include G3, G1 and a single tree in G4. This would involve being inspected by a licensed bat worker with an endoscope before felling or utilising a soft felling technique (which involves practises like removing limbs separately and lowering them to the ground and then leaving for 24 hours before clearing).
- 4.3.11. Bat roosting features could be incorporated within the scheme to provide compensatory roosting features. The boxes may include integrated or non-integrated boxes and should target crevice dwelling species such as common pipistrelle.
- 4.3.12. The habitats of highest value for bats, being the woodland, are to be retained and enhanced through development having a likely positive impact on the local bats utilising the site.
- 4.3.13. Any landscaping within the site should incorporate native fruiting and flowering species in order to attract more invertebrates to the site and enhance the sites value as a foraging resource.
- 4.3.14. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018).
- 4.3.15. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
- Keep site lighting to minimum levels.
 - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
 - Lighting should feature peak wavelengths greater than 550nm.
 - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
 - The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
 - The use of hard landscaping features to block light and create dark corridors.
 - Avoid illuminating habitats of value.
 - Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
 - Column heights of lighting can be considered to minimise light spill.

BADGERS

- 4.3.16. Please refer to the confidential badger report for details.

TERRESTRIAL MAMMALS

- 4.3.21. European Hedgehog are anticipated to be present within the site and are a Species of Principal Importance. During habitat management, any areas of dense vegetation should first be carefully hand searched to check for the species. If identified during vegetation clearance, should be relocated carefully by hand to a location away from the working area. If any injured either species are located they should be taken to a local vets.

NON-NATIVE INVASIVE SPECIES

- 4.3.22. Himalayan balsam was present throughout the site. A regulated specialist contractor should be consulted to produce a Method Statement for legal eradication of the species from the site.

5 FURTHER SURVEYS AND CONCLUSION

5.1. BADGER

5.1.1. Please refer to confidential badger report.

5.2. CONCLUSION

5.2.1. The site was found to predominantly comprise modified grassland with a pond and broadleaved woodland present. The site was found to have value or potential value for bats, birds, common amphibians and terrestrial mammals.

5.2.2. Specific enhancement recommendations for the site include the following:

- Bat and bird boxes could be placed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
- Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features within the site.

6 BIBLIOGRAPHY

- Bat Conservation Trust and Institute of Lighting Professionals (2018). Bats and artificial lighting in the UK – Bats and the Built Environment Series.
- British Hedgehog Preservation Society / People's Trust for Endangered Species (2019). Hedgehogs and Development. BHPS / PTES.
- Chanin P (2003). Ecology of the European Otter. Conserving Natura 2000
- CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.
- CIEEM (2019). Guidelines for Preliminary Ecological Appraisal. CIEEM.
- Rivers Ecology Series No. 10. English Nature, Peterborough.
- Collins (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Third Edition). The Bat Conservation Trust, London.
- Dean M., Strachan R., Gow D., Andrews R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.
- Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746. Available online at britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.
- English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Froglife (1999) Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation. Froglife Advice Sheet 10. Froglife, Halesworth.
- Gent, A.H & Gibson, S.D. (2003) Herpetofauna Workers' Manual. Joint Nature Conservation Committee, Peterborough.
- Gov.uk (2020). Guidance Otters: surveys and mitigation for development projects. Available: <https://www.gov.uk/guidance/otters-protection-surveys-and-licences>.
- Harris S., Cresswell P., Jefferies D. (1989). Surveying Badgers. The Mammal Society.
- IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.
- JNCC (2004). Bat Workers Manual. JNCC, Peterborough.
- JNCC (2010). Handbook for Phase One Habitat Survey – 2010 Edition. England Field Unit, Nature Conservancy Council. Reprinted JNCC.
- Liles, G. (2003). Otter Breeding Sites. Conservation and Management. Conserving Natura 2000 Rivers Conservation Techniques Series No. 5. English Nature, Peterborough.
- Maddock, A. (2008). UK biodiversity action plan; priority habitat descriptions. UK Biodiversity Action Plan.
- Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C.A., McDonald, R.A., and Shore, R.F. (2018). A review of the population and conservation status of British mammals.
- Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great crested newt conservation handbook, Froglife, Halesworth.
- Oldham, R.S., Keeble, J., Swan, M.J.S., and Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetology Journal 10 (4), 143-155.

- Peay, S. (2002). Guidance on Habitat for White-clawed Crayfish and its Restoration. Environment Agency.
- Shuttleworth, C., RSST (n.d.). Red and grey squirrels distribution in the British Isles in 1945 and 2010.
- Wembridge, D., Al-Fulaij, N. and Langton, S. (2016). The State of Britain's Dormice 2016. Population index, p.100.

Feature	Photograph
The majority of the site comprised a large improved grassland field. Large areas of hard rush were present.	
Waterbody within the site.	

Dense scrub with broadleaved woodland habitat to the north of the site.



Stream flowing through the centre of the site (Northern extent)



Stream flowing through the centre of the site (Southern extent)



Poor semi-improved grassland field.





- Red Line Boundary
- Scattered Trees (Low Bat Roost Suitability)
- Line of Trees
- Native Hedgerow
- Running Water - Other Rivers & Streams
- Modified Grassland
- Heathland and Scrub - Bramble Scrub
- Other Woodland-Broadleaved
- Ponds (Non-priority)
- Other Neutral Grassland

Scale: 1:3,000

Drawn By: AB

Checked By: OC

Approved By: OC



Client: Etex Exteriors Ltd

Site: New Street, Littleborough

Project Number: 20-144 | Rev: 1.0

© Collington Winter Environmental 2021

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

