



CROMPTON AVENUE, ROCHDALE

ECOLOGICAL IMPACT ASSESSMENT

Document:	BOW17_1131			
Version	Date	Prepared by	Technical Reviewer	Approved by
<i>DRAFT</i>	March 2023	Paula Hollings, Senior Ecologist	Alice Helyar, Principal Ecologist	Alice Helyar, Principal Ecologist
<i>FINAL</i>	April 2023	Paula Hollings, Senior Ecologist	Alice Helyar, Principal Ecologist	Alice Helyar, Principal Ecologist
V1	April 2023	Paula Hollings, Senior Ecologist	Alice Helyar, Principal Ecologist	Alice Helyar, Principal Ecologist
V2	April 2023	Paula Hollings, Senior Ecologist	Alice Helyar, Principal Ecologist	Alice Helyar, Principal Ecologist
V3	January 2024	Paula Hollings, Senior Ecologist	Alice Helyar, Principal Ecologist	Alice Helyar, Principal Ecologist

Disclaimer: This report is prepared by Bowland Ecology Ltd for the sole and exclusive use of Lancet Homes in response to their particular instructions. No liability is accepted for any costs, claims or losses arising from the use of this report or any part thereof for any purpose other than that for which it was specifically prepared or by any party other than Lancet Homes. This report has been prepared by an ecological specialist and does not purport to provide legal advice. You may wish to take separate legal advice. The information which we have prepared and provided is true, and has been prepared and provided in accordance with the BS42020:2013 and the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.



Contents

Executive Summary	1
1. Introduction	3
2. Methodology.....	5
3. Results	10
4. Evaluation and Assessment of Constraints	18
5. Mitigation and Opportunities	22
References	26
Appendix A – Bat Roost Potential of Trees and Habitat Suitability Categories	27
Appendix B – UK Habitat Plan	28
Appendix C –Survey Photographs	29
Appendix D – Habitat Condition Assessments	34
Appendix E – Great Crested Newt Habitat Suitability Assessment & Pond Location Plan	40
Appendix F - Raw Bat Transect Survey Plan & Raw Data	42
Appendix G – Legal Information	45

Executive Summary

This report presents the findings of an Ecological Impact Assessment of land at Crompton Avenue, Rochdale, which was commissioned by Lancet Homes to inform a planning application for a residential development at the site.

This assessment is based on information collected from a desk study, UK Habitat Classification Survey, GCN Habitat Suitability Index, Bat Roost Assessment of Trees and Bat Activity Surveys carried out at the site in May and June 2022. It also includes a provisional analysis of Biodiversity Net Gain. Relevant legislation and planning guidance are also taken into account.

Key potential ecological constraints at the site in relation to proposed development plans include the presence of broadleaved woodland adjacent to the site, foraging bats, nesting birds and habitats potentially utilised by local wildlife such as hedgehog and common amphibians. In relation to Biodiversity Net Gain, current proposals result in a predicted net-loss of grassland biodiversity units.

A summary of mitigation measures to be implemented is presented in the table below. Further detail in relation to each of these items is provided in Section 5. With all mitigation measures taken into account, it is unlikely that the proposed development would result in any significant effects on habitats and species listed above.

Key ecological features and recommendations
Biodiversity Net Gain 1.1. To achieve biodiversity net gain, the equivalent of at least 3.72 grassland biodiversity units will be required (or habitat of higher distinctiveness).
Running water 2.1. Ensure best practice measures are applied to minimise possibility of pollution to nearby habitats of importance, including stream habitat. 2.2. Ensure drainage design minimises run-off rates into the stream as much as possible, in addition to including permanent pollution and siltation control features. 2.3. Any essential drainage works impacting upon the banks of the river must be kept to a minimum in terms of area of disturbance.
Woodland and trees 3.1. Safeguard retained woodland, trees and hedgerows with Root Protection Areas. 3.2. To discourage fly tipping of garden waste, a native hedgerow shall be planted along a section of the northern site boundary. Information shall also be included in home-owners packs to dissuade the tipping of garden waste into the woodland, and the property abutting the woodland shall be provided with free garden waste bins.
Bats 4.1. Sensitive lighting measures shall be incorporated into the proposed lighting design to prevent habitat fragmentation for foraging and commuting bats caused by artificial light spill. 4.2. Six no. integrated bat boxes* shall be built into buildings along the northern and eastern site boundary as an enhancement measure.

Birds

5.1. Any vegetation removal shall be undertaken outside the bird breeding season. If this is not possible, a nesting bird check shall be undertaken immediately prior to removal.

5.2. Bird boxes* shall be installed on the proposed newbuilds as an enhancement measure comprising: 2 no. swift bricks, 2 no. sparrow terraces, 2 no. starling nest boxes and 2 no. hole-nesting bird boxes.

Other local wildlife (hedgehog, badger, amphibians)

6.1. Any excavations or trenches that need to be left overnight during construction works shall be covered, or fit with a ramp / wide plank, to ensure that any animals that enter can safely escape.

6.2. Any open pipework with an outside diameter of greater than 150 mm must be blanked off at the end of each working day to prevent animals entering/becoming trapped.

6.3. Hedgehog holes shall be incorporated into gravel boards of garden fences to retain connectivity across the site. Holes should be at ground level and measure at least 0.15 m x 0.15 m.

6.4. If any common amphibians or small mammals are found during site-based works, they shall be removed carefully to an undisturbed location off site.

Invasive species

7.1. Site staff shall be made aware of variegated yellow archangel within the woodland adjacent to the site, and procedures to follow should this species be discovered on site.

Re-survey of the Site

8.1. If no works are undertaken on site within 18 months of this survey or if any changes to the proposals are made, a further ecological survey may be necessary.

* Bat / bird boxes will only be installed on buildings if compliant with fire safety regulations.

1. Introduction

- 1.1 Bowland Ecology Ltd was commissioned by Lancet Homes to undertake an ecological assessment of a plot of land at Crompton Avenue, Rochdale (NGR: SD906112). This assessment is required to inform a planning application for a residential development, and assess any potential ecological impacts associated with proposals.
- 1.2 The proposed development includes the development of eighteen residential properties with a cul-de-sac road, driveways and gardens. A SUDS area is also proposed at the north-east of the site, likely to comprise marshy habitats. The drainage strategy will involve the installation of a surface water outfall into the off-site stream at the north-east of the site.
- 1.3 The application site measures approximately 1.10 ha and is located south of Rochdale, Greater Manchester (Figure 1). The site is bound to the north by a 0.45ha pocket of deciduous woodland and Broad Lane (B6194), to the south by playing fields, residential development to the west and a mix of scrub, grassland and residential buildings to the east. The wider landscape is characterised by suburban and urban residential and industrial development, interspersed with amenity green space. The M62 motorway is located 0.61km south. The application site itself comprises a field of grazed grassland with a low number of mature deciduous trees. A tree-lined track is partially included at the north-east of the site, which crosses a culverted stream.

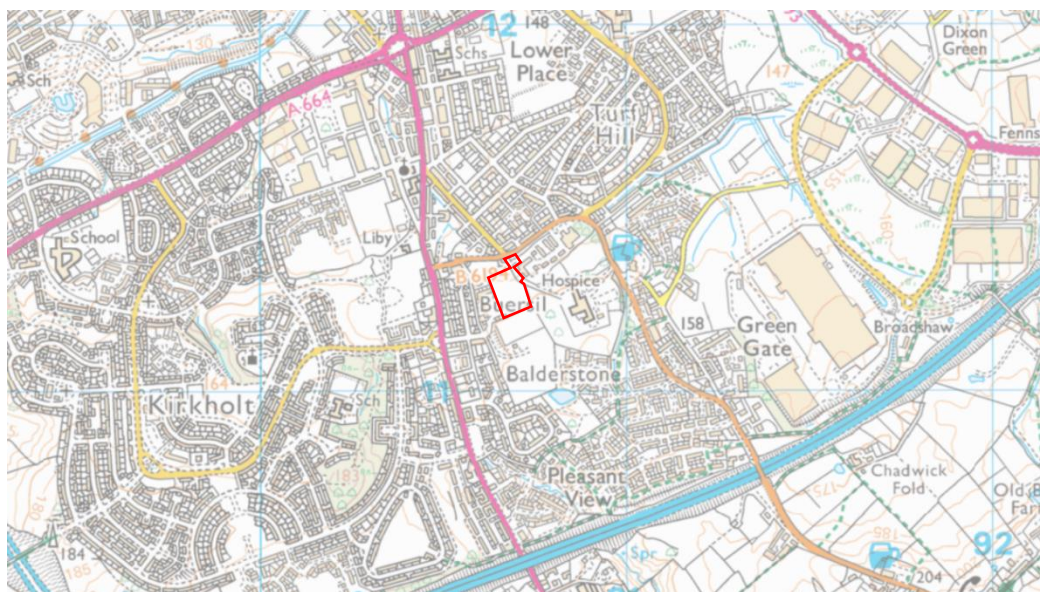


Figure 1: Survey area location (OS data)

- 1.4 To assess the potential ecological value of the application site, an ecological desk study data search, UK Habitat Classification Survey, GCN Habitat Suitability Index and Bat Roost Assessment of Trees were completed at the site on 16th May 2022, and Bat Activity Surveys were undertaken at the site on 19th May and 16th June 2022. The site was re-visited in February 2023 to account for a slight alteration in site boundary. A Biodiversity Net Gain study has also been completed as part of this assessment.
- 1.5 The assessment follows the Guidelines for Preliminary Ecological Appraisal and the Guidelines for Ecological Report Writing (CIEEM 2017a; 2017b) and is in line with the

British Standard BS42020:2013 'Biodiversity – Code of practice for planning and development'.

- 1.6 The aim of the assessment is to:
- 1) identify designated sites and important habitats occurring within the area;
 - 2) identify the presence of or potential for important species, including legally protected species; and
 - 3) assess likely impacts and recommend suitable mitigation measures and opportunities for Biodiversity Net Gain.
- 1.7 The report includes a description of the methods used, habitats and species identified, and recommendations to protect and enhance biodiversity and address legal requirements.

2. Methodology

Desk Study

- 2.1 The aim of the desk study was to identify the presence of statutory and non-statutory designated wildlife sites, legally protected species, and Habitats and Species of Principal Importance (HPI & SPI) for the conservation of biodiversity (Section 41 NERC Act 2006) within the search area.
- 2.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk) was reviewed for information on locally, nationally and internationally designated sites of nature conservation importance (statutory sites only) and areas identified as HPI within 1 km of the site boundary.
- 2.3 The MAGIC website was also reviewed for information on ancient woodland and areas identified as HPI within 1 km of the site boundary. The Woodland Trust Ancient Tree Inventory was utilised to search for locations of veteran or notable trees, and Ordnance Survey (OS) data and aerial imagery was reviewed to help identify the presence of potentially notable habitats such as ponds, watercourses, hedgerows and woodland within the local area.
- 2.4 Local records of protected sites and species within 1 km of the site were obtained from a data search with Greater Manchester Ecology Unit). The MAGIC website was also searched for records of nearby granted European Protected Species (EPS) mitigation licences for bats and great crested newts.

UK Habitat Classification Survey (UKHab)

- 2.5 An assessment was made of all areas of vegetation within the site boundaries, based on the standardised UKHab survey methodology (Butcher et al. 2020a). This involved a walkover survey to identify vegetation types, which were then classified against those types set out in UKHab classification system (Butcher et al. 2020b). All habitats within and adjacent to the site boundary were mapped and described.
- 2.6 In addition, evidence of and potential for legally protected and notable species was noted, in particular:
 - Habitats utilised by other notable and protected species, including amphibians (particularly great crested newt *Triturus cristatus*), water vole (*Arvicola amphibius*), otter (*Lutra lutra*), badger (*Meles meles*), hedgehog (*Erinaceus europaeus*), invertebrates (e.g. butterflies), nesting birds (including any active or disused bird nests) and reptiles; and
 - The presence of the most common invasive plant species subject to strict legal control including: Japanese knotweed (*Fallopia japonica*), giant knotweed (*F. sachalinensis*), hybrid knotweed (*F. x bohemica*), giant hogweed (*Heracleum mantegazzianum*), rhododendron (*Rhododendron ponticum*, *R. ponticum* x *R. maximum* and *R. luteum*), and Himalayan balsam (*Impatiens glandulifera*).
- 2.7 The survey was carried out on 16th May 2022 by Paula Hollings MSc ACIEEM, Senior Ecologist. Weather conditions at the time of the visit were: ~16°C, overcast (100 – 80% cloud), rain showers and no wind (Beaufort F0).

- 2.8 The site was re-visited in February 2023 to account for a slight alteration in site boundary, which incorporated a section of track passing over a culverted stream.

Biodiversity Net Gain

- 2.9 A provisional analysis of Biodiversity Net Gain was carried out using version 3.1 of the Biodiversity Metric (Panks *et al* 2022)¹. The Biodiversity Metric calculation spreadsheet was populated based on the extent and characteristics of the habitats recorded during the UK Habitat Survey. The Technical Guidance was referred to as regards conversion of habitat types and determination of habitat condition. Strategic significance was set as low and it was assumed that there would be no delay in habitat creation. Likely changes to habitats were deduced based on an interpretation of outline information on the proposed development. Net gain for this project is defined at an overall project-wide BNG score of >0% net gain, with no net losses in any medium/high distinctiveness habitats (in accordance with trading rules).

Bat Roost Assessment of Trees

- 2.10 In line with the specifications detailed in Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), a Preliminary Ground Level Bat Roost Assessment of Trees was conducted during daylight hours. This was undertaken in conjunction with the UKHab survey on 16th May 2022 by Paula Hollings MSc ACIEEM, Senior Ecologist (Natural England Bat Class Licence No. 2015-16053-CLS-CLS).
- 2.11 A visual assessment of trees was undertaken to determine the presence of any roosts, Potential Roost Features (PRF), together with a general appraisal of the suitability of the site for foraging and commuting. The following are examples of PRFs in trees:
- Cankers in which cavities have developed;
 - Compression forks with included bark, forming potential cavities;
 - Bat/bird/dormice boxes;
 - Cracks/splits in stems or branches;
 - Crossing stems or branches with suitable space between for roosting;
 - Ivy stems with diameters in excess of 50 mm with suitable roosting space behind (or where a mat of thinner stems has left a gap between the mat & trunk);
 - Man-made holes (e.g. cavities that have developed from flush cuts);
 - Natural holes (e.g. knot holes or tear-outs) arising from naturally shed branches, or cavities created by branches tearing out from parent stems;
 - Other hollows or cavities, e.g. rot holes and butt rots;
 - Partially detached or loose, platy bark;
 - Woodpecker/squirrel holes
- 2.12 Any accessible PRFs were inspected using binoculars and a torch for any primary or secondary evidence of possible bat presence such as feeding remains, bat droppings, oil staining and bats themselves. Surfaces beneath PRFs were also subject to a comprehensive search for evidence where possible, such as tree bark and the ground. The survey included all trees within and immediately adjacent to the site area.

¹ See <http://publications.naturalengland.org.uk/publication/6049804846366720>; this includes a calculation spreadsheet that determines number and % change in habitat and hedgerow units before and post development

- 2.13 Based on the PRFs present, the trees within the survey area were assessed using the suitability classes detailed within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), as detailed in Appendix A. Only trees with features present that are suitable to support roosting bats are described fully in the report.

Bat Activity Surveys

- 2.14 To provide an overall picture of site usage by bats, the site area was subject to a bat activity survey based upon the National Bat Monitoring Programme methodology designed by the Joint Nature Conservation Committee and the Bat Conservation Trust guidelines (Collins, 2016).
- 2.15 An assessment of the suitability of the surrounding habitats for bats was undertaken, including the identification of potential foraging and roosting areas, potential flight lines and important commuting corridors. Based on the site habitats and site location, the survey area was considered to be of 'moderate' suitability for foraging and commuting bats as defined by Bat Conservation Trust guidelines (Collins, 2016):
- Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.
 - Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
- 2.16 For sites with moderate suitability for foraging and commuting bats, Bat Conservation Trust guidance (Collins, 2016) recommends up to one survey visit per month throughout the bat activity season (April to October), combined with monthly automated static bat detector surveys. Automated bat surveys were not undertaken in this instance due to the risk of equipment theft from the site.
- 2.17 Survey transect routes around the site area were identified prior to surveys commencing, which aimed to incorporate each of the habitats on site, but with focus on linear habitat features of higher potential value to bats. At the time that the transect routes were plotted, proposed works were likely to impact upon the woodland to the north of the site. Hence, a number of the stop points are positioned within the woodland outside of the current application site boundary. This data is still of relevance in relation to assessing potential indirect impacts, and also for providing a comparison between the relative value of on-site habitats for bats.
- 2.18 Surveyors initially adopted static positions at strategic vantage points to locate commuting activity/routes onto the site. Observations from the vantage points continued for between 20 and 40 minutes after sunset to allow for bat commuting on to the site following roost emergence; walked transects were then conducted. A total of twelve 'stop points' were identified along each transect route. The transect routes were walked at a slow pace by the surveyors, stopping at each stop point for a period of three minutes.
- 2.19 The surveys commenced at sunset and continued for between 2 and 3 hours. The surveys were undertaken using electronic bat detectors (Echo Meter EM3+ and Echo Meter Touch). Computer analysis of bat detector information collected allowed all species using the site at the time of the surveys to be identified.

- 2.20 A total of two transect surveys were undertaken in the peak bat activity season (May and June). A decision was then made as to whether any further summer survey visits were needed, based on professional judgement and potential impacts of proposals. As proposals were updated to avoid any direct impacts upon the woodland and mature trees, further summer activity surveys were not considered necessary or proportionate to potential effects, given the low value of grassland habitats on site combined the small-scale nature of the site.
- 2.21 The bat activity surveys were undertaken on 19th May 2022 and 16th June 2022 by Curtis Blank (Ecologist), Vinny Smith, Luke Hall and Rhiannon Kamink (Assistant Ecologists).

Great Crested Newt Habitat Suitability Index

- 2.22 Ponds within 250 m of the site area, with habitat connectivity to the site, were visually assessed for their suitability to support GCN. Ponds were assessed utilising the modified GCN Habitat Suitability Index (HSI) (Oldham et al, 2000). The HSI is a numerical index between 0 and 1, wherein a score of 1 represents optimal habitat for GCN (See Appendix E). The HSI score is used to define the suitability of the pond on a categorical scale. It should be noted, however, that a HSI indicates the habitat suitability with respect to GCN and is not an indicator of presence or absence.
- 2.23 The HSI is given by assigning a quantitative figure to each of 10 variables, including pond area, water quality and level of shading (see Appendix E), which are all factors considered to affect GCN. The calculation of the HSI is according to the formula: $HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$. This is a geometric mean, the tenth root of the product of all the suitability indices, which then provides the figure for habitat suitability. Assessment was also made of the habitat connectivity between ponds and the site, based on a review of habitat survey data (if available) and mapped sources.
- 2.24 The HSI assessment was undertaken in conjunction with the UKHab survey on 16th May 2022 by Paula Hollings MSc ACIEEM, Senior Ecologist.

Limitations

- 2.25 The habitat survey focused on the most prominent and important species within the time available, rather than aiming to identify all species that might present within site. Ecological surveys are also limited by factors that affect the presence of plants and animals, such as the time of year, migration patterns and behaviour. Therefore, the survey of the study area has not produced a complete list of plants and animals.
- 2.26 Desk study data should not be treated as a comprehensive list of species present within a search area. Habitat inventories shown on MAGIC vary in terms of their completeness, precision and reliability. Many species are under-recorded and low numbers of records can indicate a lack of survey effort in some areas, rather than confirm the absence of a species.
- 2.27 The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats, including aquatic habitats. The UK Habitat Classification Survey checked, in particular, for the presence of Japanese knotweed, giant knotweed, hybrid knotweed,

giant hogweed, rhododendron and Himalayan balsam. There may be other invasive plant species present on the site which were not recorded, but it is considered that the survey was sufficient to identify any significant constraints posed by invasive plants.

- 2.28 The Preliminary Bat Roost Assessment of Trees was undertaken from ground level, without climbing equipment. Thus, bat roost features above 2 m in height could not be directly inspected for evidence of bat roost present/absence.
- 2.29 It is also often not possible to make accurate assessments of the presence or number of crevice-roosting bats, such as pipistrelles and some *Myotis* species, in a tree roost from a single inspection. This is due to the bats and their signs (such as droppings) most often remaining hidden from view in deep crevice roosts, and/or field evidence degrading quickly in trees or washing away in the rain. This is a standard constraint of all tree inspections for roosting bats.

3. Results

Desk Study

- 3.1 The desk study identified the following designated wildlife sites within 1 km of the site boundary:

Statutory designated sites

Site Name	Designation	Distance from site boundary	Key features
Rochdale Canal	Special Area of Conservation & Site of Special Scientific Interest	0.93 km east	The Rochdale Canal contains important habitats for submerged aquatic plants and emergent vegetation, including extensive colonies of the nationally scarce SAC species floating water plantain <i>Luronium natans</i> . The site also supports a diverse assemblage of aquatic flora, notably its assemblage of pondweeds <i>Potamogeton</i> spp; the nine species of which found in the canal represent a balanced community which reflects the quality of water.

- 3.2 The application site is located within a Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) for Rochdale Canal SSSI. SSSI IRZs are utilised by Local Planning Authorities to assess planning applications for likely impacts on SSSIs. The IRZ that the site falls into for Rochdale SSSI does not require any further consultation or assessment for planning applications of this type (residential development of under 100 houses).

Non-statutory designated sites

Site Name	Designation	Distance from site boundary	Key features
Sudden Brook (West)	Site of Biological Importance	0.68 km south	No citations provided specific to SBI qualifying features.
Marsh near Turf Hill	Site of Biological Importance	0.86 km east	
Rochdale Canal (Scowcroft to Warland)	Site of Biological Importance	0.81 km north-west	

- 3.3 The Natural England Magic website indicates that the following HPI types occur within 1 km of the site:
- Good quality semi-improved grassland
 - Open Mosaic Habitat;
 - Lowland Fens; and
 - Deciduous Woodland.
- 3.4 The closest HPI habitat area comprises a 0.24 ha pocket of deciduous woodland located approximately 0.28 km west of the application site.
- 3.5 Reference to the Natural England Magic website indicates that no ancient woodland occurs within 1 km of the site.
- 3.6 Reference to the Woodland Trust Ancient Tree Inventory indicates that no veteran or ancient trees occur within 1 km of the site area.
- 3.7 Reference to Ordnance Survey data and aerial imagery indicates the presence of one pond approximately 240 m south of the site area. No other ponds are located within 500 m of the site.
- 3.8 Desk study data in relation to species is provided within the 'Species' section below.

Habitats

- 3.9 The location of habitats recorded during the UK Habitat Classification Survey is mapped in Appendix B. Photographs are provided in Appendix C and habitat condition assessments as Appendix D. Each habitat type is described below. Plant species nomenclature follows Stace (2010).

h2b: Hedgerow

- 3.10 A hedgerow approximately 30 m in length is present along the northern site boundary, co-dominated by hawthorn *Crataegus monogyna* and Leyland cypress *Cupressus x leylandii*. This separates the site from an adjacent residential garden outside the site area. The hedgerow measures approximately four metres in height and is recently unmanaged. The hedgerow forms part of a double hedgerow with a parallel cherry laurel *Prunus laurocerasus* hedge within the adjacent residential garden. Ground flora present to the base of the hedgerow includes abundant common nettle *Urtica dioica* and cleavers *Galium aparine*, indicative of nutrient enrichment.
- 3.11 The hedgerow does not qualify as a Section 41 habitat owing to the prominence of non-native species (Leyland cypress).
- 3.12 A condition assessment on this habitat feature concluded the habitat is in 'poor' condition, owing to undesirable ground flora, presence of non-native species and functionality as a garden hedgerow.

h3d: Bramble scrub

- 3.13 A pedestrian track is partially included within the east of the site area, which is lined with bramble *Rubus fruticosus* agg. scrub. Other species scattered throughout the bramble include occasional common nettle, honeysuckle *Lonicera periclymenum*,

butterfly bush *Buddleja davidii*, elder *Sambucus nigra*, broad-leaved dock *Rumex obtusifolius*, hybrid bluebell *Hyacinthoides × massartiana* and hedge garlic *Alliaria petiolata*.

- 3.14 Bramble scrub is automatically assigned as ‘poor’ condition by the Defra Metric calculator.

g3c: Neutral grassland

- 3.15 The majority of the site comprises open, species-poor grassland. The species composition possesses a high ratio of grasses in relation to forbs, including species indicative of agricultural improvement. Species present comprise frequent rough meadow grass *Poa trivialis*, Yorkshire fog *Holcus lanatus*, cock’s-foot *Dactylis glomerata*, white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*, occasional ribwort plantain *Plantago lanceolata*, meadow foxtail *Alopecurus pratensis*, false oat grass *Arrhenatherum elatius*, meadow buttercup *Ranunculus acris*, broad-leaved dock *Rumex obtusifolius*, perennial rye-grass *Lolium perenne*, red fescue *Festuca rubra* and rarely occurring soft brome *Bromus hordeaceus*, sweet vernal grass *Anthoxanthum odoratum*, common sorrel *Rumex acetosa*, common mouse-ear *Cerastium fontanum*, yarrow *Achillea millefolium*, common ragwort *Senecio jacobaea*, red clover *Trifolium pratense* and common daisy *Bellis perennis*.
- 3.16 At the west of the site, indicators of moist ground conditions are present including reed canary grass *Phalaris arundinacea* and marsh foxtail *Alopecurus pratensis*, and an increased abundance of broad-leaved dock.
- 3.17 A strip of dense common nettle and cleavers is present at the north-west of the site, which are species indicative of nutrient enrichment.
- 3.18 Condition assessments concluded the grassland on site to be in ‘poor’ condition, owing to a lack of forbs, sedges and indicator species for natural grassland habitat types.

11: Scattered trees

- 3.19 A cluster of five mature trees are present to the east of the site, including common beech *Fagus sylvatica*, sycamore *Acer pseudoplatanus* and common lime *Tilia x europaea*.
- 3.20 A number of semi-mature to mature trees also overhang the site area from adjacent properties at the north-east of the site, including beech, rowan *Sorbus aucuparia*, sycamore, lime and Norway maple *Acer platanoides*.
- 3.21 One small crab apple *Malus sylvestris* and cherry tree *Prunus avium* are present at the south-west of the field.
- 3.22 All trees on site were assessed to be in ‘moderate’ condition in relation to ecological characteristics. The trees have been subject to a separate Arboricultural Constraints Appraisal (Bowland Tree Consultancy Ltd, 2023).

u1b: Developed land – sealed surface

- 3.23 A small square of hardstanding is present at the south-west of the site area, with scattered pioneer vegetation present such as perennial rye-grass, common ragwort

Senecio jacobaea, sow thistle *Sonchus oleraceus* and cut leaved cranesbill *Geranium dissectum*. Aerial imagery suggests the historic presence of a small building at this location. A driveway and track are present at the north-east of the site.

r2: Stream

- 3.24 A shallow stream is present at the north-east of the site, which is culverted beneath the entrance to the site. This stream is shallow (<15cm) with a moderate flow and is channelised by stone walls. The watercourse is lined with beech and lime trees and is heavily shaded. No aquatic or marginal vegetation is present within the stream.

w1g: Other woodland - broadleaved

- 3.25 Bankside vegetation to the stream comprises a narrow strip of woodland ground flora beneath the semi-mature lime and beech trees, including species such as ivy *Hedera helix*, pendulous sedge *Carex pendula*, cock's-foot and ash *Fraxinus excelsior* regeneration.
- 3.26 A condition assessment of the narrow woodland belt along the stream concluded the habitat to be in 'moderate' condition, with positive attributes including a lack of damage through browsing, invasive species and disease. Negative attributes largely relate to a lack of structural or species diversity.

g4: Modified grassland

- 3.27 Mown grassland abuts the stream bank to the south, which is shaded by scattered beech trees and comprises species such as common bent *Agrostis capillaris*, annual meadow grass *Poa annua*, red campion, cock's-foot, ground elder *Aegopodium podagraria*, wood avens, clover *Trifolium repens*, ivy-leaved speedwell *Veronica hederifolia* and cow parsley. Snowdrop *Galanthus* sp. and other planted bulbs including daffodil *Narcissus* sp. are also present.

w1g: Other woodland - broadleaved (outside application site)

- 3.28 A 0.45 ha parcel of broad-leaved woodland abuts the site boundary to the north. Canopy species present include alder *Alnus glutinosa*, ash *Fraxinus excelsior*, goat willow *Salix caprea*, black poplar *Populus x canadensis*, horse chestnut *Aesculus hippocastanum*, silver birch *Betula pendula*, sessile oak *Quercus petraea*, rowan, alder *Alnus glutinosa*, cherry and wych elm *Ulmus glabra*. A large poplar is present at TN2, which possesses multiple features of over-maturity, including rot holes and fissures in the bark. Light ivy *Hedera helix* cover is present on occasional trees. Ash dieback *Hymenoscyphus fraxineus* is present. Understorey species include hazel *Corylus avellana*, holly and hawthorn. A belt of understorey shrubs forms a hedgerow-style edge to the woodland along the northern site boundary, comprising holly *Ilex aquifolium*, elder *Sambucus nigra*, hawthorn *Crataegus monogyna* and sycamore *Acer pseudoplatanus*.
- 3.29 Ground flora species include herb Robert *Geranium robertianum*, cleavers, bramble, red campion *Silene dioica*, hedge garlic *Alliaria petiolata*, meadow foxtail, wood avens *Geum urbanum*, cow parsley *Anthriscus sylvestris* and ramsons *Allium ursinum*. Ramsons is an ancient woodland indicator species where abundant, and can indicate woodland HPI status, however only a very low number of ramsons plants were recorded (<10). An open glade area is present to the north of the woodland with a dry pond feature. Additional ground flora species at this location include rosebay willowherb

Chamaenerion angustifolium, creeping buttercup, foxglove *Digitalis purpurea*, columbine *Aquilegia* sp. and hybrid bluebells *Hyacinthoides non-scripta* x *hispanica* = *H. x massartiana*.

- 3.30 The woodland appears to be managed for wildlife and community use, with strimmed paths throughout and features such as dead-hedges, brash piles, bird boxes and insect hotels, as well as recently planted understory shrubs and logs as seating areas.
- 3.31 The invasive Schedule 9 species variegated yellow archangel *Lamium galeobdolon* subsp. *argentatum* is present at the west of woodland, adjacent to a strimmed path (TN3).
- 3.32 The condition assessment for this woodland concluded this habitat to be in 'good' condition.

Species

Bats

- 3.33 29 records of bats were identified by the desk study within 1km of the site, including 22 records of common pipistrelle, one record of a brown long-eared bat and two bat records not identified to species level. The closest record is common pipistrelle from within the site area, with the following information attached: 'bat grounded at Broad Lane – released'.
- 3.34 Eight of the 29 bat records are records of bat roosts, including one common pipistrelle maternity roost located ~0.91 km south-west.
- 3.35 The Defra MAGIC website identified two granted European Protected Species Mitigation Licences within 1 km of the site, for the destruction of common pipistrelle resting sites approximately 0.95 km and 0.99 km south-west of the site.
- 3.36 All trees on and adjacent to the site were inspected by the Preliminary Bat Roost Assessment of Trees. One tree was identified to possess low potential value for roosting bats (Labelled as TN1, Appendix B; see Appendix C for photograph & details). All other trees were concluded to be of negligible potential value for roosting bats.
- 3.37 Bat activity surveys were undertaken at the site in 2022. Appendix F contains raw data of the transect surveys.
- 3.38 One species of bat was recorded during the two survey visits: common pipistrelle *Pipistrellus pipistrellus*. A total of 53 bat passes during the May survey and 82 passes during the June survey, over survey periods of approximately two hours. The earliest common pipistrelle bats recorded by the survey visits were detected at 0 and 24 minutes after sunset, which is prior to and within the peak emergence time for the species (20 to 30 minutes after sunset). These early-emergence bats were recorded at the north of the site and comprised bats foraging within the woodland glades and around the canopy of the off-site veteran poplar tree. It is considered likely that the woodland, and/or houses that surround the woodland, support roosting bats.
- 3.39 The application site boundaries were utilised as foraging and commuting habitat by common pipistrelle bats. The highest levels of common pipistrelle foraging activity were generally recorded along the woodland edge, and at the tree-lined track to the north-

east of the site. This foraging activity largely comprised up to four bats at any one time and varied from near constant foraging behaviour to irregular passes. Social calls were recorded.

Badgers

- 3.40 The habitats on site are considered suboptimal as sett building habitat for badger *Meles meles* owing to moist soils and flat topography. As a precaution, all areas of the site, and the adjacent woodland, were subject to a comprehensive search for potential badger sett entrances as part of the UKHab survey, and none were recorded.
- 3.41 Given the mobile nature of the species, there remains a low risk of badger occasionally crossing the site.

Riparian mammals

- 3.42 Two records of water vole were identified by the desk study within 1 km of the site, from a network of ditches/streams located approximately 0.6 km and 0.8 km east of the site area. These records are from 2004. The stream at the north-east of the site area connects to these watercourses. However, the stream adjacent to the site is considered unsuitable water vole habitat for at least 50 m from the site, owing to its highly exposed nature in terms of mown banks, proximity to residential development, lack marginal of vegetation and shallow water. The stream is also culverted beneath roads and development to the east and west of the site, resulting in highly fragmented habitat for riparian mammals.
- 3.43 The likelihood of water vole or otter presence along the stream is considered negligible, and these species are not considered further within this assessment.

European hedgehog

- 3.44 The desk study identified eight records of hedgehog within 1 km of the site. The grassland on site may be utilised by hedgehog for foraging and/or dispersal to and from the adjacent woodland habitat, which contains suitable refugia and hibernation habitat for the species.

Birds

- 3.45 The desk study identified records of the following SPI bird species within 1 km of the site:
- Bullfinch *Pyrrhula pyrrhula*
 - Dunnock *Prunella modularis*
 - Herring gull *Larus argentatus*
 - House sparrow *Passer domesticus*
 - Lapwing *Vanellus vanellus*
 - Lesser redpoll *Acanthis cabaret*
 - Skylark *Alauda arvensis*
 - Song thrush *Alauda arvensis*
 - Starling *Sturnus vulgaris*
- 3.46 Of the above species, the trees and scrub on site may provide limited suitable habitat for nesting and foraging song thrush only. Habitats of this nature are well represented

throughout the local area. The site is not likely to be of notable importance for SPI bird species.

- 3.47 The scrub and trees on site possess suitability for common nesting birds, and bird nests were recorded during the UKHJab Survey. All nesting/nest building birds are legally protected by the Wildlife and Countryside Act 1981 (as amended).

Amphibians

- 3.48 A GCN Habitat Suitability Index of the pond within 500 m of the site was undertaken, to determine the potential suitability of the pond to support GCN. The pond location is shown as Appendix E along with HSI raw data, and a photograph provided as Appendix C. The HSI assessment concluded that the pond possesses 'Poor' suitability for GCN. The main negative influence on the suitability for great crested newt is the spatial isolation of the pond from any others within the local area. As GCN function as meta-populations between clusters of ponds, this reduces the likelihood of presence. The banks of the pond were also heavily denuded by waterfowl, and the water appeared to be poor quality based on the presence of a film of oil in places.
- 3.49 Habitats separating the application site from the pond include recreational and grazed grassland, suboptimal for amphibian dispersal owing to an overall lack of refugia. In addition, the site area itself provides relatively few opportunities for amphibians in terms of good quality foraging, refuge and hibernation habitat.
- 3.50 Given the suboptimal suitability of the pond, site and intervening habitats for GCN, the risk of GCN presence within the site area is considered negligible and this species is not considered further within this assessment.
- 3.51 A stream is present adjacent to the north-east of the site, which may be utilised by other amphibians including common toad (a SPI). As above, the site itself provides suboptimal terrestrial habitat for amphibians, especially relative to the adjacent broad-leaved woodland off-site. However, there remains a low risk of common amphibians occasionally dispersing across the site.

Reptiles

- 3.52 The habitats on site are suboptimal for reptiles owing to the lack of habitat diversity and structure, lack of connectivity with any other suitable habitat and high levels of recreational disturbance on site through dog walking. The likelihood of reptiles occurring within the site area is considered negligible, and this species group is not considered further within this assessment.

Invertebrates

- 3.53 No protected or SPI invertebrate species records were returned by the desk study.
- 3.54 The grassland on site offers limited habitat structure for invertebrates in comparison to surrounding rough grassland/scrub/woodland habitats. The site is considered highly unlikely to be of value to any SPI invertebrate species. Potential impacts to invertebrates are not considered in further detail by this assessment.

Plants

- 3.55 No protected or SPI plant species records were returned by the desk study.
- 3.56 No plant species were recorded on site with conservation status.
- 3.57 Yellow variegated archangel is present within the woodland outside of the edge red. This is a Schedule 9 invasive species, which is illegal to spread into the wild.

Biodiversity Net Gain

- 3.58 The baseline Biodiversity Net Gain analysis calculated that the number of habitat area units provided by the site is currently 8.76. Based on current proposals, on-site losses are predicted to occur across grassland broad habitat types (see table below).

Habitat area type	Existing value (habitat area units)	Value after development (habitat area units)	Net change (habitat area units)
Medium distinctiveness habitats			
Other neutral grassland	4.12	0.40	-3.72
Bramble scrub	0.08	0.08	0
Urban tree	4.32	4.41	+0.09
Other broadleaved woodland	0.16	0.16	0
Mixed scrub	0	0.04	+0.04
Pond	0	0.04	+0.04
Low / very low distinctiveness habitats			
Developed land, sealed surface	0	0	0
Modified grassland	0.08	0.02	-0.06
Vegetated garden	0	0.77	+0.77
Introduced shrub	0	0.04	+0.04
Rain garden	0	0.07	+0.07
Notes:			
- Post-development units generated by low distinctiveness habitats (e.g. gardens and ornamental shrubs) cannot offset baseline units generated by medium distinctiveness habitats (Panks et al, 2022). - Post-development units generated by linear habitats cannot offset units generated by baseline area habitats (Panks et al, 2022).			

- 3.59 Hedgerows and lines of trees are treated separately in the Biodiversity Metric. The number of units provided by these is currently 0.03. This is predicted to increase to 0.54 as a result of the proposed development (see table overleaf).
- 3.60 Rivers and streams are treated separately in the Biodiversity Metric. As impacts to bankside habitats are temporary, and the drainage strategy will incorporate measures to ensure the water quality and flow rates of the stream will not significantly alter, a separate detailed Morph assessment was not undertaken.

Linear habitat type	Existing value (linear habitat units)	Value after development (linear habitat units)	Net change (linear habitat units)
Medium distinctiveness habitats			
Native species rich hedgerow	0	0.35	+0.35
Low / very low distinctiveness habitats			
Hedge – ornamental non-native	0.03	0.19	+0.16
Notes: - Post-development units generated by low distinctiveness habitats (e.g. ornamental non-native hedgerows) cannot offset baseline units generated by medium distinctiveness habitats (Panks et al, 2022). - Post-development units generated by linear habitats cannot offset units generated by baseline area habitats (Panks et al, 2022).			

4. Evaluation and Assessment of Constraints

- 4.1 An assessment of potential impacts on designated sites, habitats, species and Biodiversity Net Gain is presented below. This is based on the information available on the proposed development (see below) and the professional judgement of the ecologists that prepared this report. It considers legal requirements (see Appendix G) and relevant national and local planning policies.

Development Proposals

- 4.2 The proposed development includes the development of eighteen residential properties with a cul-de-sac road, driveways and gardens. A SUDS area is also proposed at the north-east of the site, likely to comprise marshy habitats. This is as per the Drawing Ref. P23-0141_EN_001 Rev.E (Landscape Masterplan, Pegasus Group). If the proposals are altered, the assessment will need to be reviewed. The proposed road will enter the site from Crompton Avenue, at the south-west of the site. The drainage strategy will involve the installation of a surface water outfall into the off-site stream at the north-east of the site.

Designated Sites

- 4.3 Four nature conservation sites are located within 1 km of proposals, including Rochdale Canal SSSI and SAC. The site does not fall within any Site of Special Scientific Interest Impact Risk Zones that requires consultation with Natural England for developments of this nature. The site is not connected to the SAC in any way by watercourse, and thus the drainage from the site will not affect the SAC. It is also considered too far from the SAC for air borne, noise or light pollution to cause an adverse effect. Given the small scale of proposals, the canal is unlikely to experience increased disturbance from recreational activities as a result of the development.

- 4.4 Considering the small-scale nature of the application site and distance from any nature conservation sites (>0.6km), it is not considered that nature conservation sites will be impacted upon by site development.

Habitats of Principal Importance

- 4.5 No Habitats of Principle Importance identified on Magic Map, are present within or adjacent to the site area. The closest HPI habitat area identified by the desk study is a parcel of woodland located 0.28 km west of the application site, beyond the A671. Considering the small-scale nature of the application site and lack of habitat connectivity to any areas of HPI, it is not considered that any HPI will be impacted upon by site development.

Other Habitats

Running Water

- 4.6 The 'rivers' HPI type includes all natural and near-natural running waters in the UK (i.e. with features and processes that resemble those in 'natural' systems). The stream at the north-east of the site is channelised and heavily modified, and thus not considered to qualify as a HPI. However, all running water habitats in general are sensitive ecosystems that must be protected from harm. The proposed drainage strategy involves the installation of a surface water outfall into the stream. This poses a risk of pollution and siltation, both during and post construction works. Recommendations are therefore made in Section 5 in relation to the protection of the stream throughout construction and operational phases of the development.

Hedgerow

- 4.7 The hedgerow on site does not qualify as a Section 41 habitat owing to the prominence of non-native species (Leyland cypress). This hedgerow is to be retained and presents an opportunity for enhancement through replacing the cypress with native shrubs.
- 4.8 Current landscaping proposals have incorporated 0.11 km of native hedgerow habitat, resulting in a predicted net-gain of this habitat type post-development.

Grassland

- 4.9 The grassland on site does not qualify as a Section 41 habitat type based on species composition. The condition assessment for the habitat type is 'poor' (see Appendix D). Site development will unavoidably result in a net-loss of grassland, as a broad habitat type, within the site area. Based on current landscaping proposals, species-diverse grassland will be incorporated into the north of the site area. This shall reduce the potential net-loss of grassland biodiversity units from 4.12 to 3.72. To achieve a net-gain in grassland units, the equivalent of at least 3.72 grassland (or habitat of higher distinctiveness) units will be required.

Scattered trees

- 4.10 The deciduous trees on site do not form part of a Section 41 habitat type, however the trees at the west of the site are of note in terms of maturity. These trees are to be retained and protected as part of site proposals. Based on plans, one semi-mature tree may be removed along the stream to facilitate drainage installation work. Twenty-three

no. native trees have also been incorporated into planting plans, resulting in a net-gain of this habitat type.

Scrub

- 4.11 The scrub lined track shall be retained as part of proposals, resulting in no net loss of this habitat type.

Woodland

- 4.12 The woodland immediately adjacent to the northern site boundary was assessed to be in good condition based on habitat structure, maturity, species diversity and ground flora. Current proposals will not directly impact upon the woodland, however indirect degradation is possible given the proximity of works, including damage to tree roots and light pollution.
- 4.13 One rear residential garden will abut the woodland, introducing the threat of garden waste fly tipping. Aside from this garden, the remainder of the northern site boundary will be planted with grassland, marsh and species-rich native hedgerow habitats, ensuring a semi-natural ecotone between the woodland and built development.
- 4.14 Mitigation measures are recommended in Section 5 in relation to the protection of the woodland throughout construction works and post-development, as well as measures to reduce the likelihood of fly tipping.

Species

- 4.15 Protected and notable species that have been identified by the desk study, and those which potentially suitable habitat occurs within or adjacent to the site, are discussed below in terms of the likely impact of site proposals.

Bats

- 4.16 One tree on site was identified to possess low potential value for roosting bats by the Bat Roost Assessment (see Appendix C). The tree in question shall be retained and protected as part of proposals, with continued direct connectivity to off-site foraging habitat, and thus no adverse effects are anticipated.
- 4.17 Bat activity surveys concluded that the woodland edge habitat at the north of the site is of high value for foraging common pipistrelle bats, whilst the open grassland that dominates the application site is of low value. The data also suggested the presence of roosting common pipistrelle bats to the north of the site (either within the woodland, or immediately adjacent houses). The trees and scrub along the eastern site boundary were also utilised by foraging common pipistrelle bats.
- 4.18 These habitats of value to bats are to be retained and protected as part of proposals. However, indirect impacts in the form of artificial illumination could result in habitat fragmentation for nocturnal wildlife including bats. Measures shall be incorporated into any lighting plans for the site to protect habitats of value to bats, as detailed in Section 5.

Badger, hedgehog and common amphibians

- 4.19 There is a risk of local wildlife including badger, hedgehog and common amphibians crossing the site area during construction works. As such, mitigation recommendations are made in Section 5 in relation to covering any deep excavations throughout site development. In addition, features such as 'hedgehog highways' at the base of garden fences shall be installed to minimise habitat fragmentation for amphibians and small mammals.

Birds

- 4.20 The scrub, hedgerow and trees on site possess suitability for nesting birds. A small number of shrubs and small trees will be removed to facilitate development. As all nesting/nest building birds are legally protected by the Wildlife and Countryside Act 1981 (as amended), a recommendation is made in Section 5 for any vegetation removal to occur outside of nesting bird season or be subject to a nesting bird check immediately prior to removal.

Plants

- 4.21 No plant species were recorded on site with conservation status.
- 4.22 Yellow variegated archangel is present within the woodland outside the site boundary. This is a Schedule 9 invasive species, which makes it illegal to cause the spread of the species into the wild. Works will not impact upon any ground colonised by this species and thus are unlikely to cause the plant to spread. A precautionary recommendation is made in Section 5 in relation to site staff awareness.

Biodiversity Net Gain

- 4.23 The provisional Biodiversity Net Gain analysis showed that the number of habitat units provided by the site could fall by 31%, largely due to the anticipated loss of grassland. Unavoidable losses can be compensated for by enhancing retained areas of habitat or by creating new areas of habitat. If there is insufficient space on-site, off-site compensation can be provided. Compensation for certain habitats is constrained under the Biodiversity Metric trading rules:

Habitat type predicted to experience net-loss	Compensation constraints
Other neutral grassland	Same broad habitat or habitat of higher distinctiveness required

- 4.24 To achieve a net-gain in grassland units, the equivalent of 3.72 neutral grassland units will be required (or habitat of higher distinctiveness), to satisfy trading rules.
- 4.25 Other habitat creation/retention on site (including gardens etc.) totals 6.03 units. An additional 3.72 grassland units would total 9.75 biodiversity units overall, which would equate to a 11.3% net gain.
- 4.26 The Biodiversity Net Gain analysis shows that the number of hedgerow units provided by the site is likely to increase by over 100%.

5. Mitigation and Opportunities

- 5.1 The recommendations set out below aim to ensure that the proposed development take account of important ecological features, legal requirements (see Appendix G), and relevant national and local planning policies. The National Planning Policy Framework (2021) specifically states that development should seek to minimise impacts, incorporate improvements, and provide net gains for biodiversity. If the proposals are changed significantly, the recommendations will need to be reviewed.

Designated Sites

- 5.2 No mitigation is required with respect to designated nature conservation sites.

Habitats of Principal Importance

- 5.3 No mitigation is required with respect to HPis.

Other Habitats

Running water

- 5.4 Measures should be put in place to reduce the effects of potential pollutants (e.g. dust, fuel/oil spillage). Relevant guidance published on the NetRegs website should be adhered to during the works. This should be included, along with a detailed working methodology, within a Construction Environment Management Plan (CEMP). Examples of suitable mitigation that can be adopted during site clearance and construction include;
- Drainage design must ensure that the stream is protected from siltation, pollution and pulses in water flow, both throughout any works within the stream (e.g. installation of outflow) and post-development.
 - Any essential drainage works impacting upon the banks of the river must be kept to a minimum in terms of area of disturbance.
 - Vehicle refuelling in designated compounds/areas and fuel stored in double bunded containers;
 - Drip trays or plant nappies to be used when refuelling and left under stationary machinery;
 - Oil spill kits to be kept on site and within all vehicles;
 - Maintaining high standards of housekeeping;
 - Enforcing speed limits on site and dampening down working areas and haul roads in dry periods to prevent dust;
 - Using covered wagons and skips;
 - The use of sandbags, straw bales or silt fencing where necessary as silt-prevention;
 - Keeping roads clean with the use of road sweepers; and
 - All materials such as excavated topsoil must be stored in a bunded area, and protected from potential rainfall and runoff, and replaced upon completion of works.

Woodland & Trees

- 5.5 To discourage fly tipping of garden waste, information shall also be included in home-owners packs to dissuade the tipping of garden waste into the woodland. The property abutting the woodland shall also be provided with free garden waste bins.
- 5.6 In line with BS 5837:2012 (Trees in Relation to Design, Demolition and Construction), Root Protection Areas (RPAs) shall be installed to protect the woodland and any other trees to be retained on and immediately adjacent to the site, using vertical barriers or appropriate ground protection to create exclusion zones prior to commencement of works.
- 5.7 Soft landscaping plans shall use native trees and shrubs wherever possible throughout the area.

Species

Bats

- 5.8 To prevent habitat fragmentation through artificial lighting, the following sensitive lighting strategies shall be incorporated into the proposed lighting design:
- Lighting shall be designed to ensure light levels at the northern site boundary does not exceed 1 lux.
 - Only the minimum light levels needed for safety shall be installed adjacent to site boundaries and shall be directed away from site boundaries using luminaire accessories such as hoods, cowls, louvres and shields where necessary.
 - No upward pointing light shall be permitted on the development.
 - Narrow spectrum bulbs shall be utilised to minimise the range of species affected by lighting.
 - Light sources that emit minimal ultra-violet light and white and blue wavelengths of the light spectrum shall be avoided.
 - Lights which peak higher than 550 nm with minimal ultra-violet light and a warm to neutral colour temperate (<4,200 kelvin) shall be utilised where possible to reduce impacts upon bats.
 - Where possible, use lights that 'dim' when not activated by sensors. Such lights incorporate a functionality for motion detection with full illumination only triggered when people are present, further reducing potential adverse impacts upon bats. In the absence of motion, the lights change to a 'dimmed state', which is 25% of the full illumination.
 - Reflective surfaces under lights shall be avoided.

Birds

- 5.9 Any vegetation removal works shall take place outside the breeding bird season. The nesting bird season is weather dependent but generally extends between March and August (inclusive). If this is not possible then any trees that are to be removed or disturbed shall be checked by an experienced ecologist for nesting birds immediately prior to removal. If birds are found to be nesting, any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally.

Other local wildlife (hedgehog, badger, amphibians)

- 5.10 Any excavations that need to be left overnight shall be covered or a ramp down into the excavation shall be provided to ensure that any animals that enter can safely escape.
- 5.11 Any open pipework with an outside diameter of greater than 150 mm must be blanked off at the end of each working day to prevent otters entering/becoming trapped.
- 5.12 Hedgehog holes shall be incorporated into gravel boards of garden fences to retain connectivity across the site. Holes should be at ground level and measure at least 0.15 m x 0.15 m.

Invasive species

- 5.13 Site staff should be made aware that variegated yellow archangel is present within the adjacent woodland and remain vigilant to colonisation. If this species is identified on site prior to or during site development, works within that area of the site should halt and an ecologist / invasive species specialist should be contacted to determine a way forwards.

Biodiversity Net Gain

- 5.14 The provisional Biodiversity Net Gain analysis showed that the number of habitat units provided by the site could fall by 31%. To achieve biodiversity net gain, the equivalent of at least 3.72 grassland (or habitat of higher distinctiveness) biodiversity units will be required.

Enhancement measures

- 5.15 The value of areas of amenity grassland could be improved by seeding or planting with native wildflowers and mowing these areas less frequently. This would provide a foraging resource for a variety of species, contributing to the ecological and aesthetic value of the area.
- 5.16 Two no. swift bricks shall be installed on site, under overhanging eaves on the external walls of proposed buildings, at a minimum height of 2 m above the ground, on sheltered sides of buildings, along with 2 no. sparrow terraces, 2 no. starling nest boxes and 2 no. hole-nesting bird boxes. Bird boxes installed on buildings must be compliant with fire safety regulations.

5.17 Two no. integrated bat boxes shall be built into buildings along the southern site boundary, to increase the number of roosting opportunities on site. Bat boxes installed on buildings must be compliant with fire safety regulations.

5.18 Native street trees are proposed to be planted throughout the site.

Re-survey of the Site

5.19 If no works are undertaken on site within 18 months of this survey or if any changes to the proposals are made, a further ecological survey may be necessary (because of the mobility of animals and the potential for colonisation of the site)

References

- Bowland Tree Consultancy Ltd (2023) Arboricultural Constraints Appraisal
- British Standards Institution (2013) BS 42020:2013 Biodiversity: Code of practice for planning and development. British Standards Institution, London.
- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020a) *The UK Habitat Classification User Manual Version 1.1* at <http://www.ukhab.org>
- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020b) *UK Habitat Classification – Habitat definitions V1.1* at <http://ukhab.org>
- CIEEM (2017a) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2017b) Guidelines for Preliminary Ecological Appraisal 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.
- Institute of Lighting Professionals (2018) Bats and artificial lighting in the UK. The Bat Conservation Trust, London.
- Oldham (2000) Great Crested Newt Habitat Suitability Index
- Panks *et al* (April 2022) Biodiversity Metric 3.1: Auditing and accounting for biodiversity (including Technical Guide, Users Guide, Calculation Tool and Habitat Condition Assessment Sheets). Natural England Joint Publication JP039. First published April 2022.
- National Planning Policy Framework (2021) Ministry of Housing, Communities and Local Government, London.
- Stace, C. (2010) New Flora of the British Isles. Third Edition. Cambridge University Press, Cambridge.

Appendix A – Bat Roost Potential of Trees and Habitat Suitability Categories

Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape (Collins, 2016).

Suitability	Description of Roosting Habitat	Commuting & Foraging Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground, or feature seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	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 but 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 and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging, such as trees, scrub, grassland or water.
High	A tree 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.	Continuous high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close and connected to known roosts.

Appendix B – UK Habitat Plan



Appendix C –Survey Photographs

See the UKHab Plan & Pond Location Plan for location of habitats and Target Notes.

Map reference / Description	Photograph
16.05.23	
TN1: Tree with low bat roost potential A number of small rot pockets are present as a result of historic pruning. A weld feature is also present on this tree. No obvious suitable sheltered cavities observed, however the tree may provide a low number of crevice features for individual transient crevice-dwelling bats.	
TN2 / Large black poplar within woodland outside site boundary.	
TN3 / Variegated yellow archangel (off-site)	

G3c-58 / Grassland across site area			
G3c-16 / Tall herb			
H2b / Laylandii and hawthorn hedgerow			
U1b-h3d / Track with bramble scrub			

U1b-w1g / Road with woodland edge	
W1g / Woodland area (off-site)	
W1g-166 / Open clearing within woodland (off-site)	

W1g / Brash piles, insect hotels and dead hedge features within woodland (off-site)	
15.02.23	
U1b-11 / Entrance driveway to site from Broad Lane with overhanging tree. Stream is culverted beneath drive.	
R2 & w1g / Tree-lined stream, culverted beneath site entrance	

Offsite pond ~240 m
from site



Appendix D – Habitat Condition Assessments



UKHab type: G3c Neutral grassland: other	Plan reference		
	G3c-58	G3c-16	G3c-120
Condition assessment criteria			
1: The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. <i>NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.</i>	x	x	x
2: Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed	x	x	x
3: Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens	✓	✓	✓
4: Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%	✓	✓	✓
5: There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area	✓	✓	✓
6: There are greater than 9 species per metre squared. NB - This criterion is essential for achieving good condition (non-acid grassland types only).	✓	x	x
Condition status	Poor Grassland, dominated by grasses with low ratio of forbs and no indicator species for grassland HPis (fails criteria 1).	Poor Stands of tall herb, with scrub & undesirable species. (fails criteria 1).	Poor Grassland, dominated by tall grasses, reed and tall herb. (fails criteria 1).
Good: Passes 5 of 6 criteria, including essential criterion 1 and 6. Moderate: Passes 3 or 4 of 6 criteria, including essential criterion 1.			

Poor: Passes 0, 1, 2 criteria of 6 criteria; OR Passes 3 or 4 criteria excluding criterion 1 and 6"

UKHab type: h2b (0.03km) Other hedgerow		
Functional group	Attribute	Plan reference: h2b
A	Height	✓
A	Width	✓
B	Gap – hedge base	✓
B	Gap – hedge canopy continuity	✓
C	Undisturbed group and perennial vegetation	×
C	Undesirable perennial vegetation	×
D	Invasive and neophyte species	✓
D	Current damage	✓
Condition	Poor (Poor is an automated condition for non-native hedgerows. This hedgerow is 50% non-native. Habitat also fails both attributes within one functional group.)	

UKHab type: g4 Modified grassland	Plan reference
Condition assessment criteria	G4
1: There must be 6-8 species per m ² . If a grassland has 9 or more species per m ² it should be classified as a medium distinctiveness grassland habitat type. NB - this criterion is essential for achieving moderate condition.	x
2: Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed	x
3: Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	✓
4: Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	✓
5: Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	✓
6: Cover of bracken less than 20%.	✓
7: There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	✓
Condition status	Poor Mown grassland, dominated by grasses with low ratio of forbs. Fails essential criteria 1 for moderate condition.
Good: Passes 6 or 7 of 7 criteria including passing essential criterion 1 Moderate: Passes 4 or 5 of 7 criteria including passing essential criterion 1. Poor: Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1	

UKHab type: g3c-11 Urban trees Plan reference: 11			
Condition Assessment Criteria		Lime, sycamore & beech	Apple & cherry
1	The tree is a native species (or more than 70% within the block are native species).	✓	✓
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	✓	n/a
3	The tree is mature ² or veteran ³ (or more than 50% within the block are mature ² or veteran ³).	✓	x
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	x	✓
5	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark	x	x
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	✓	✓
Condition		Moderate (passes 4/6 criteria)	Moderate (passes 4/6 criteria)

UKHab type: w1g Other woodland – broadleaved (off-site)		
Condition assessment criteria	Plan ref: w1g (off site)	Plan ref: w1g (along stream)
1. Age distribution of trees	Three age classes present (3)	One age class present (1)
2. Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland (3)	No significant browsing damage evident in woodland (3)
3. Invasive plant species	Variegated yellow archangel present (<10% cover) (2)	No invasive species present (3)
4. Number of native tree species	Five or more native tree or shrub species found across woodland parcel (3)	3-4 native tree or shrub species found across woodland parcel (2)
5. Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native (3)	>80% of canopy trees and >80% of understory shrubs are native (3)
6. Open space within woodland	Woodland <10ha in size (3)	Woodland <10ha in size (3)
7. Woodland regeneration	One or two classes present in woodland (2)	One or two classes present in woodland (2)
8. Tree health	Crown dieback present, mortality less than 25% (2)	No diseased trees present (3)
9. Vegetation and ground flora	Ancient woodland indicators present (3)	No recognisable NVC community or ancient woodland indicators present (1)
10. Woodland vertical structure	Two storeys present (2)	One storey present (1)
11. Veteran trees	One veteran tree present (2)	No veteran trees present (1)
12. Amount of deadwood	Deadwood present (rotting limbs & fallen trees) (2)	Limited deadwood present (1)
13. Woodland disturbance	Less than 1 ha of nutrient enrichment & less than 20% woodland with damaged ground (2)	Less than 1 ha of nutrient enrichment & less than 20% woodland with damaged ground (2)
Condition:	Good (Total score: 32)	Moderate (Total score: 26)

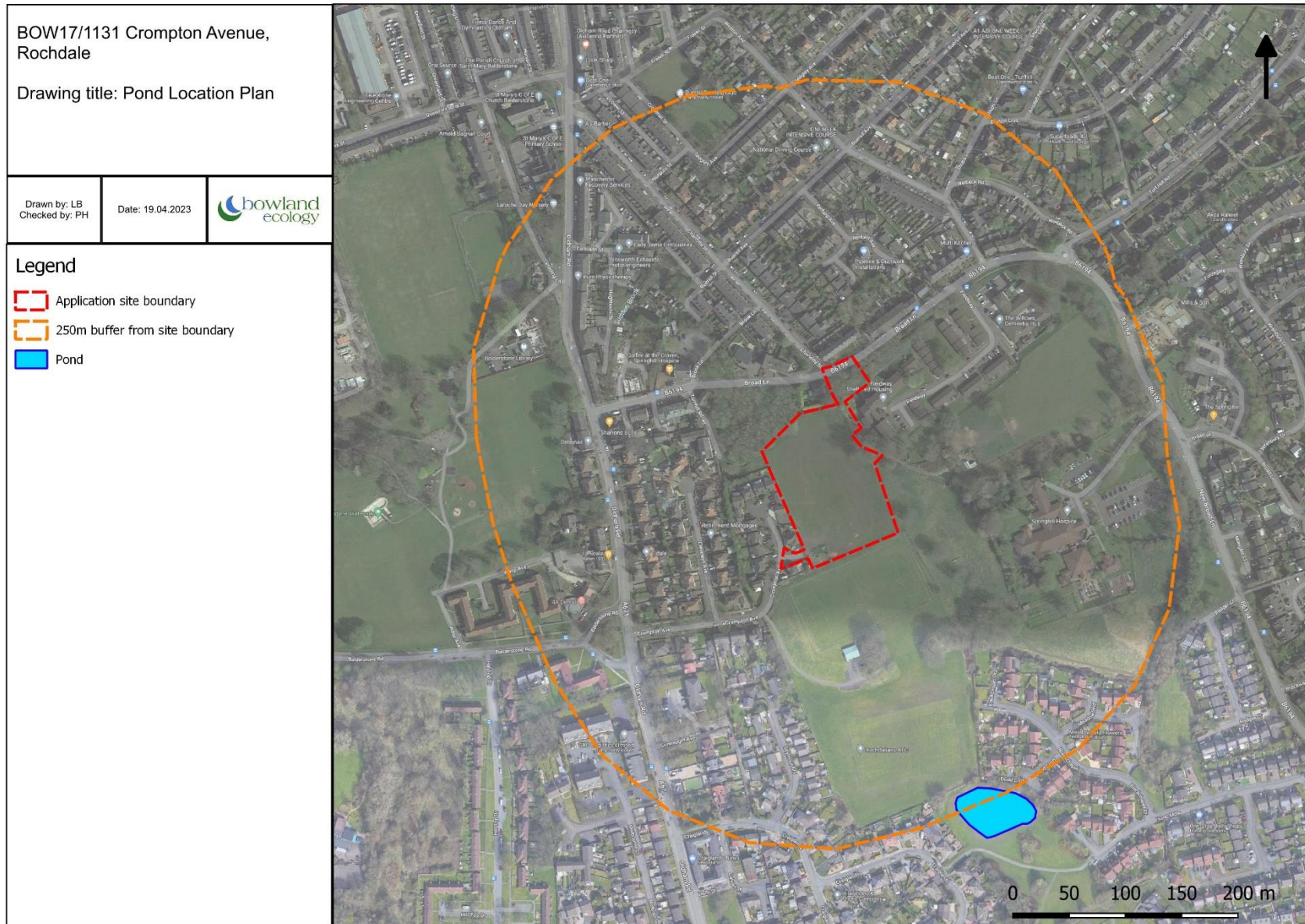
Appendix E – Great Crested Newt Habitat Suitability Assessment & Pond Location Plan

Great Crested Newt HSI Scoring

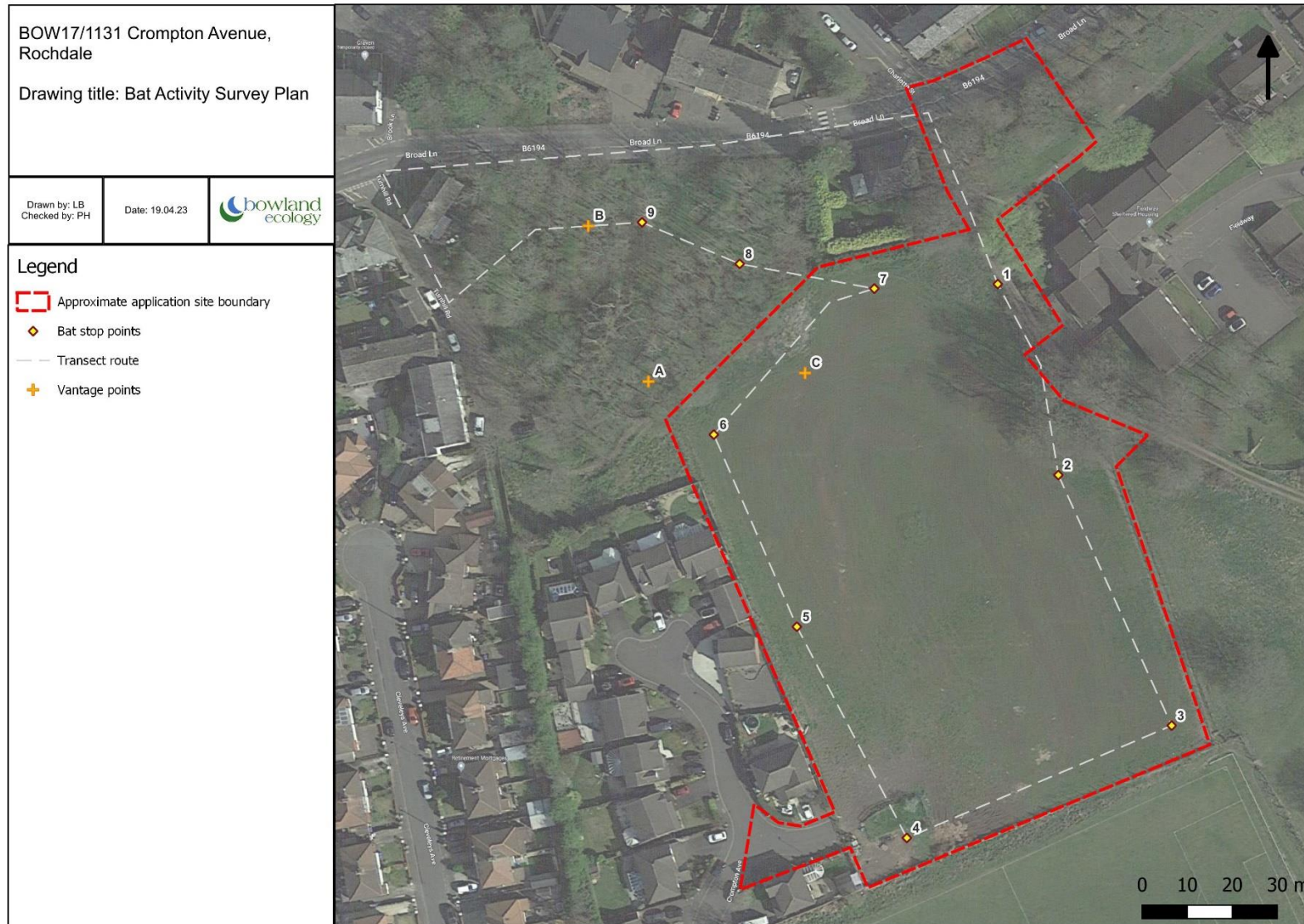
HSI Score	Pond suitability
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

HSI Variables

No	HSI Category	HSI Criteria / Score	Crompton Av. Pond
1	Location	Location A: optimal (1), north, central & southern England; Location B: marginal (0.5), northern Pennines, north/southern Scotland & small areas of Wales; Location C: unsuitable (0.01) Scotland, west of Wales & Cornwall	1
2	Pond Area	Calculated based on pond area in metre squared.	0.8
3	Pond Drying	Never dries = 0.9; Rarely Dries = 1.0; Sometimes dries = 0.5; Dries annually = 0.1.	0.9
4	Water quality	Good = 1.0; Moderate = 0.67; Poor = 0.33; Bad = 0.01	0.33
5	Shade	Calculated as a percentage, with shading up to 60% considered suitable for great crested newt. Shade cover greater than 60% progressively declines in value.	1
6	Fowl	Absent = 1; Minor = 0.67; Major = 0.01.	0.01
7	Fish	Absent = 1; Possible = 0.67; Minor = 0.33; Major = 0.01.	0.67
8	Ponds	Number of ponds occurring within 1km of survey pond and divided by Pi (3.14). Exclude ponds where major barrier such as roads exist.	0.1
9	Terrestrial Habitat	Good = 1; Moderate = 0.67; Poor = 0.33; Bad = 0.01.	0.67
10	Macrophytes	Estimated percentage value of macrophyte cover (sum of emergent, floating, submerged plants reaching the surface, except duckweed)	0.35
Result			0.36 - Poor



Appendix F - Raw Bat Transect Survey Plan & Raw Data



Project: Crompton Avenue, Rochdale	Date: 19.05.22	Surveyors: Rhiannon Kirk & Luke Hall	Sunset time: 21:09	Temp (°C) (Start – End): 16 – 14 Wind (Beaufort) (Start – End): F1 – F1 Cloud cover (%) (Start – End): 10% – 30% Precipitation (Start – End): Dry – Dry	
Transect ref: n/a					
Time	Species	Map ref.		Number of bats seen	Any other notes
VANTAGE POINT SURVEY (21:09 – 21:39)					
21:33 – 21:35	CP	A		1	Constant foraging around canopy of poplar tree. Likely to have emerged from tree based on time, abundance of features & lack of observations of bats commuting towards tree from elsewhere.
21:39	CP	B		1	1 x pass, close to road.
TRANSECT SURVEY (21:39 – 23:09)					
5 min listening stop no. (map ref)	Arrival time at stop no.	Species	Number of bat passes	No. of bats	Activity type
1	21:42	Common pipistrelle	8	2	Foraging
2	21:48	Common pipistrelle	2	1	Foraging
3	21:55	Common pipistrelle	6	1	Foraging
4	22:01	Common pipistrelle	7	1	Foraging
5	22:07	Common pipistrelle	2	1	Foraging
6	22:13	Common pipistrelle	4	2	Foraging
7	22:22	-	-	-	-
8	22:30	-	-	-	-
9	22:36	-	-	-	-
1	22:46	Common pipistrelle	2	1	Foraging
2	22:52	-	-	-	-
3	23:00	Common pipistrelle	2	1	Foraging
4	23:07	-	-	-	-

Project: Crompton Avenue, Rochdale		Date: 16.06.22	Surveyors: Curtis Blank & Vincent Smith	Sunset time: 21:40	Temp (°C) (Start – End): 21 - 19 Wind (Beaufort) (Start – End): F0 Cloud cover (%) (Start – End): 70% - 70% Precipitation (Start – End): Dry – Dry	
Transect ref: n/a						
Time	Species	Map ref.		Number of bats	Any other notes	
VANTAGE POINT SURVEY (21:40 – 22:00)						
21:40 – 21:59	CP	C		4	Four brief passes (heard not seen) between 21:40 and 21:51. Single bat foraging along S edge of woodland (N field boundary) at 21:52. Between 21:53 and 21:59, a maximum of four bats foraging within woodland glade at NE of site, and along southern edge of woodland.	
22:00	CP	B		1	1 x pass, heard not seen.	
TRANSECT SURVEY (22:05 – 23:48)						
5 min listening stop no. (map ref)	Arrival time at stop no.	Species	Number of bat passes	No. of bats	Activity type	
Between D & 1	n/a	Common pipistrelle	20	1	Bat foraging along tree-lined track at NE of site.	
1	22:09	Common pipistrelle	34	2	Foraging activity around tree-lined track at NE of site. Frequent social calls	
2	22:15	Common pipistrelle	1	1	Bat commuting S along E site boundary	
3	22:22	Common pipistrelle	7	2	Foraging and commuting activity along E and S site boundaries, at SE site corner.	
4	22:30	Common pipistrelle	4	2	Commuting and foraging activity along S and W site boundaries, at SW site corner.	
5	22:37	Common pipistrelle	1	1	Commuting N along W site boundary.	
6	22:44	Common pipistrelle	1	1	Commuting activity (heard not seen)	
7	22:51	-	-	-	-	
8	22:59	-	-	-	-	
9	23:05	Common pipistrelle	2	1	Foraging and commuting activity (heard not seen)	
9 to 1		Common pipistrelle	5	1-2	Foraging activity (heard not seen)	
1	23:17	-	-	-	-	
2	23:23	Common pipistrelle	1	1	Distant, brief foraging activity (heard not seen)	
3	23:30	Common pipistrelle	1	1	Brief foraging activity (heard not seen)	
4	23:37	Common pipistrelle	5	1	Foraging activity (heard not seen)	
5	23:43	-	-	-	-	

Appendix G – Legal Information

This report provides guidance of potential offences as part of the impact assessment. This report does not provide detailed legal advice and for full details of potential offences against protected species the relevant acts should be consulted in their original forms i.e. The Wildlife and Countryside Act, 1981, as amended, The Countryside and Rights of Way Act 2000, The Natural Environment and Rural Communities Act, 2006 and The Conservation of Habitats and Species Regulations 2017.

Species	Legislation	Offences	Notes on licensing procedures and further advice
Species that are protected by European and national legislation			
Badger	Protection of Badgers Act 1992	Wilfully kill, injure or take a badger; Intentionally or recklessly damage, destroy or obstruct access to a badger sett; Disturb a badger in its sett. It is not illegal to carry out disturbance activities in the vicinity of setts that are not occupied.	Where required, licences for development activities involving sett loss, damage or disturbance are issued by Natural England (NE). Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process. Licences are normally not granted from December to June inclusive because cubs may be present within setts. https://www.gov.uk/badgers-protection-surveys-and-licences
Bats <i>European protected species</i>	Conservation of Habitats and Species Regulations 2017 Reg 41	Deliberately ¹ capture, injure or kill a bat; Deliberate disturbance ² of bats; Damage or destroy a breeding site or resting place used by a bat. The protection of bat roosts is considered to apply regardless of whether bats are present.	An NE licence in respect of development is required in England. https://www.gov.uk/bats-protection-surveys-and-licences <i>European Protected Species: Mitigation Licensing- How to get a licence</i> (NE 2010) <i>Bat Mitigation Guidelines</i> (English Nature 2004) <i>Bat Workers Manual</i> (JNCC 2004) <i>BS8596:2015 Surveying for bats in trees and woodland</i> (BSI, 2015)
	Wildlife and Countryside Act 1981 (as amended) ⁴ S.9	Intentionally or recklessly ³ obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

Species	Legislation	Offences	Notes on licensing procedures and further advice
Birds	Conservation of Habitats and Species (Amendment) Regulations 2012	N/A	Authorities are required to take steps to ensure the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat. This includes activities in relation to town and country planning functions.
	Wildlife and Countryside Act 1981 (as amended) ⁴ S.1	Intentionally kill, injure or take any wild bird; Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; Intentionally take or destroy the nest or eggs of any wild bird. Schedule 1 species Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, little ringed plover). Intentionally or recklessly³ disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety. https://www.gov.uk/wild-birds-protection-surveys-and-licences https://www.gov.uk/prevent-wild-birds-damaging-your-land-farm-or-business

¹ Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing ² Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong. Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided. Thus deliberate disturbance that does not result in either (a) or (b) above would be classed as a lower level of disturbance. ³ The term 'reckless' is defined by the case of Regina versus Caldwell 1982. The prosecution has to show that a person deliberately took an unacceptable risk, or failed to notice or consider an obvious risk. ⁴ The Wildlife and Countryside Act (1981) has been updated by various amendments, including the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. A full list of amendments can be found at <https://jncc.gov.uk/our-work/wildlife-countryside-act/>

Habitats & Species	Legislation	Guidance
Species and Habitats of Principal Importance for the Conservation of Biodiversity	Natural Environment & Rural Communities Act 2006 S.40 (which superseded S.74 of the Countryside & Rights of Way Act 2000).	S.40 of the NERC Act 2006 sets out the duty for public authorities to conserve biodiversity in England. Habitats and species of principal importance for the conservation of biodiversity in England (identified by the Secretary of State in consultation with NE) are referred to in S.41 of the NERC Act: http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx The list of habitats and species was updated in 2007 to ensure that it remained focussed on the correct priorities: https://jncc.gov.uk/our-work/uk-bap/ The criteria for selection included international threat, responsibility and importance, rate of decline/risk, importance of habitats for key species, and other important factors. Ecological impact assessments should include an assessment of the likely impacts to these habitats and species.
Hedgerows	The Hedgerow Regulations 1997	Under the regulations, it is against the law to remove or destroy hedgerows that are classified as “important” under the regulations without permission from the local planning authority. The regulations apply if a hedgerow is in or runs alongside agricultural land, common land including town or village greens, land used for forestry or for the breeding or keeping of horses etc, a local nature reserve or Site of Special Scientific Interest. A hedgerow can be classified as ‘Important’ due to its wildlife and landscape value or due to its heritage value. In general, permission will be required before removing hedges that are at least 20 metres in length, over 30 years old and contain certain species/diversity of plant. The local planning authority will assess the importance of the hedgerow using criteria set out in the regulations. See https://www.gov.uk/guidance/countryside-hedgerows-regulation-and-management for further guidance and information.
Variegated yellow archangel	Wildlife and Countryside Act 1981 (as amended) S.14	It is illegal to plant this species or otherwise cause it to grow or spread in the wild. Any contaminated soil or plant material containing invasive species is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990. https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants

Relevant Local Planning Policy

Rochdale Council’s Core Strategy was adopted in October 2016. Policy G7 relates to increasing value of biodiversity and geodiversity:

G7 - Increasing the value of biodiversity and geodiversity

We will ensure that sites and features of biodiversity and geodiversity importance are given full and appropriate recognition and protection. Opportunities for enhancing biodiversity and geodiversity, creating new sites and features of interest and improving opportunities for public enjoyment will be supported. No development should result in a net loss of biodiversity or geodiversity interest in the borough and overall development in the borough should result in a net gain.

Particular priorities for biodiversity and geodiversity are:

1. The South Pennine Moors - our focus is to maintain and enhance the peatland habitats of the moorland and to support development, land and water management activities which provide an opportunity to conserve and enhance the value of moorland for upland breeding birds of conservation significance and the habitats on which they depend and which do not harm biodiversity value. Our focus is the designated Special Protection Area and Special Area of Conservation but also the wider moorland where such interest is present or could be supported through appropriate development or land management. We will also protect and support enhancement measures for areas of geodiversity value.
2. The Rochdale Canal - our focus is to ensure that the Rochdale Canal Special Area of Conservation and the wider biodiversity interest of the canal is given full and appropriate protection and ensure that development which delivers the economic and recreational value of the Rochdale Canal and its wider corridor supports and does not harm its biodiversity value.
3. Upland farmland - our focus is to ensure that the biodiversity interest of upland farmland including its value for birds, woodland and grassland is protected and opportunities for enhancement and the creation of new interest maximised through land management improvements and appropriate development activities.
4. Countryside around towns - our focus is to protect and enhance the biodiversity interest of river valleys, woodland, water and farmland including the reclamation of derelict and neglected land and flood risk management measures. We will also support actions which enhance public access and enjoyment of countryside close to urban areas including Local Nature Reserves and the wider countryside.
5. Urban Areas - our priority is to protect and enhance existing urban biodiversity and to support opportunities for new urban biodiversity corridors, sites and features including sustainable urban drainage schemes, new public realm provision, street trees and urban woodlands, ponds and lodges, green roofs and natural play areas.
6. Designated sites of ecological importance - will be given appropriate protection according to their European, national or local status and in accordance with policies in other development plan documents, supporting Supplementary Planning Documents and Biodiversity Action Plans.
7. Protected Species: Development proposals which would affect a species protected by law or its habitat will not be permitted unless it can be demonstrated that:
 - a. there is no adverse impact on the species concerned; and
 - b. damage to habitats is minimal and alternative habitat provision is effective in maintaining those species.

Opportunities to protect, enhance and create features of biodiversity or geodiversity interest should be informed by the detail of any formal designation of a site or area and supporting plans and guidance such as Local Biodiversity Action Plans, Green Infrastructure Strategies and Action Plans and the Council's Biodiversity and Development SPD. We will expect development proposals and improvements to:

- a. Protect and include existing biodiversity (including established biodiversity interest on brownfield land) within new developments, public realm and open spaces and meet the requirements of the Biodiversity and Development SPD, Greater Manchester and Local Biodiversity Action Plans;
- b. Protect and enhance existing features such as peatland, ponds, wetlands, reservoirs, mill lodges, trees, hedges, wooded areas, meadows, flora and fauna;
- c. Take opportunities to promote biodiversity and create new habitats through new development using landscaping and building and construction features wherever possible (e.g. ponds, species of vegetation, green roofs and walls, bat boxes, roof space, appropriate nest boxes and landscaping);
- d. Enhance strategic wildlife corridors and the most natural areas and ensure that habitats and corridors are not fragmented by development;
- e. Improve access where appropriate to new or existing biodiversity interest for public enjoyment; and
- f. Protect important geology and take opportunities to increase interest and accessibility.