FUTURESECOLOGY

Crowther Bruce & Co Ltd

New Mills, Marsden

PRELIMINARY ECOLOGICAL APPRAISAL REPORT

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1.0 EXECUTIVE SUMMARY

1.1 Proposals are for the redevelopment of a site at New Mills, Marsden with mixed use (residential / commercial). The site comprises a series of large, complex buildings with small areas of amenity grassland, tall ruderal vegetation, ephemeral short perennial vegetation and scattered scrub / trees. The River Colne runs along the northern boundary and beneath the site through a culvert, which is to be opened up.

1.2 Important Ecological Features (IEF's) that require further consideration, survey work and or mitigation / compensation are:

- Statutory Designated Sites: South Pennine Moors Special Areas of Conservation (SAC) / Sites of Special Scientific Interest (SSSI), South Pennine Moor Phase 2 Special Protection Areas (SPA) and Peak District Moors Phase 1 SPA, Dark Peak SSSI. An appropriate assessment required in relation to impact pathways such as air pollution, water supply and recreation to determine if there is to be a Likely Significant Effect (LSE).
- Non-Statutory Sites: A Habitat of Principal Importance, HPI (deciduous woodland) - mitigation required to avoid impacts during construction and operational phase. Measures to be outlined within a Construction and Environmental Management Plan (CEMP), and a sensitive lighting strategy are required.
- River Colne – mitigation required to avoid impacts during construction and operational phase. Measures to be outlined within a CEMP, and a Management and Maintenance Plan.
- Bats – Buildings present on site that comprise high, moderate and low bat roosting potential will require further nocturnal survey work (May to Augst, inclusive) to establish the presence or likely absence of roosting bats. Survey requirements are outlined within this report.
- Bats Hibernation – A number of buildings contain hibernation potential for bats. Mitigation and compensation required.
- Bats Foraging / Commuting Habitats - the River Colne which runs along the northern boundary and beneath the site is likely to represent a significant resource for the local bat population. Mitigation required to avoid impacts during construction (to be outlined within a CEMP) and operational phase which will require a sensitive lighting strategy designed in accordance with guidelines from BCT (2023)[1].
- Nesting Birds – Suitable nesting habitat along the River Colne, within scrub / trees and birds noted as nesting within the buildings. To comply with relevant legislation any removal of suitable nesting vegetation (trees / scrub) and buildings should be timed to avoid the nesting season where possible (March to September inclusive). As pigeons *Columba livia* are known to nest all year round affected areas must be checked for nests in advance by an experienced ecologist. A nesting bird check will also be necessary alongside the River Colne for any works within 10m during March -

[1] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

September. Compensation in the form of nest boxes and new tree/ scrub planting to be provided.

- Water Vole *Arvicola amphibius* / Otter *Lutra lutra* – The River Colne is suitable for otter and water vole foraging and commuting. Mitigation required to avoid impacts during construction and operational phase. To be outlined within a CEMP and Management and Maintenance Plan. A sensitive lighting strategy will also be necessary.
- Signal crayfish *Pacifastacus leniusculus* – This invasive species is present in the River Colne. Biosecurity measures will be required, to be outlined within a CEMP.
- Hedgehog *Erinaceus europaeus* -Although limited, suitable foraging habitat is present on site for this species. Post development compensation habitats and gaps within any fencing to be provided.

1.3 Additional enhancement measures are also outlined within Section 6 of this report.

2.0 INTRODUCTION

2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Crowther Bruce & Co Ltd. It provides the results of an extended Phase 1 habitat survey and preliminary protected species survey, including bat internal / external building assessments at New Mills, Marsden (grid reference: SE 05020 11684).

2.2 The Phase 1 habitat survey and preliminary protected species surveys were undertaken on 30th April 2025.

2.3 The key objectives of the Preliminary Ecological Appraisal Report (PEAR) are to:

- gain an understanding of the baseline ecology of the Site and immediate surrounding area.
- determine whether the Site supports or has the potential to support protected species.
- identify any likely ecological constraints and mitigation measures likely to be required.
- identify the opportunities offered by the potential project to deliver ecological enhancement.

SITE LOCATION AND CONTEXT

2.4 The site is located within Marsden, south west of Huddersfield. It is boarded by roads and residential properties with the River Colne running adjacent to the northern site boundary and under the buildings located within the north of the site.

DEVELOPMENT PROPOSALS

2.5 Development proposals are for the demolition and restoration of some buildings, along with the creation of new buildings for various uses including; retail, industrial, offices and

residential. The proposals also include opening up of the culverted section of the River Colne in the north.

BACKGROUND

2.6 A previous report, Envirotech, Preliminary Ecological Appraisal, February 2023 was reviewed to inform the updated assessment of the site. The report stated that the site assessment was undertaken on the 30th November 2023, however, it is considered likely that this was an error and would have been November 2022 given the report is dated February 2023.

2.7 The bat assessment undertaken was completed with only an external inspection with the buildings not assigned a likely roosting potential. The report concluded that extensive further assessment would be required along with "A *bespoke level and type of survey would need to be agreed with the local authority. Alternatively, some form of application under Natural England's Licensing Policy 4 which permits lower than standard survey effort to be used may be appropriate. It is likely that a bespoke level of survey, to at least determine the species and general number of bats locally is undertaken. This would be followed with a licence under Policy 4, and a worst-case scenario of mitigation/ compensation, for those species identified on site, for which the roost sites have not been determined but is assumed."*

2.8 Hibernation potential of the site was determined to be moderate.

2.9 The site was also stated likely to be providing a significant nesting resource for urban centric species with recommendations made to undertake a further high level of survey assessment comprising of at least six breeding bird surveys.

2.10 The River Colne is stated as providing suitable for commuting habitat for otter *Lutra lutra* and further survey work was recommended.

2.11 White clawed crayfish were identified in the Kirklees Biodiversity Action plan as being present in the River Colne at Marsden. No further survey work was undertaken as the river was not to be impacted, and pollution prevention measures were to be in place to prevent any impacts.

3.0 METHODOLOGY

PERSONNEL

3.1 The habitat assessment and internal / external bat assessment was undertaken by R. Harmsworth BSc (Hons), MCIEEM, who has over 15 years' experience in ecological consultancy, including habitat surveys and site assessments for protected species. R. Harmsworth is appropriately qualified for the surveys based on the CIEEM competencies and is registered to use a Natural England Class Licence Level 2 & 4 to survey for bats (CL20: 2015-11905-CLS-CLS), barn owls *Tyto alba* (CL29/00237) and great crested newts (GCN) *Triturus cristatus* (2015-17660-CLS-CLS).

DESK STUDY

3.2 Prior to the field survey, aerial photographs and mapping tools were reviewed using online mapping resources at a minimum scale of 1:25,000; Google Maps[2]; and the Multi Agency Geographic Information for the Countryside (MAGIC)[3] to assess the landscape context of the survey area and surrounding areas.

3.3 The MAGIC website was used to obtain information about:

- Statutory designated sites of international, national, and local importance;
- Impact Risk Zones (IRZs) for Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites; and
- Ancient Woodland and Habitats of Principal Importance[4];
- Natural England's Open Dataset[5];
- Approved European Protected Species Mitigation (EPSM) licences;
- Natural England Environmental DNA surveys and Habitat Suitability Assessments of Ponds for great crested newt in support of District Level mitigation Licensing.

3.4 In addition, the Woodland Trust's Ancient Tree Inventory (ATI)[6] and Landis[7] are searched for within the site.

3.5 To support the field survey and compile baseline information of relevance to the site, ecological information was sought from third party organisations:

- West Yorkshire Ecological Service (WYES); and
- West Yorkshire Bat Group (WYBG).

3.6 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.

3.7 The search area for designated sites and protected species is determined by the likely Zone of Influence[8] and the likely significant affect. The search areas for the various levels of site designation and for protected / notable species is detailed below:

- Sites of international statutory designation such as Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Sites are searched for within a 10km radius around the application site.

[2] www.google.com/maps
[3] www.magic.defra.gov.uk
[4] https://magic.defra.gov.uk/magicmap.aspx
[5] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019
[6] https://ati.woodlandtrust.org.uk/
[7] Hallett, S.H., Sakrabani, R., Keay, C.A. and Hannam, J.A. (2017) Developments in Land Information Systems: Case studies in land resource management capabilities and options. Soil Use and Management. doi: 10.1111/sum.12380. http://onlinelibrary.wiley.com/doi/10.1111/sum.12380/full
The Zone of Influence (ZOI) is defined by CIEEM as being the "area over which ecological features may be affected by biophysical changes as a result of a proposed project and associated activities" CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Marine.

- Sites of national or regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR) within 2km.
- Sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS) within 1km; and
- Records of notable / protected species (i.e., including Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and local Biodiversity Action Plan (LBAP) species within 1km and bats within 2km.
- EPSM licences relating to bats within 2km and GCN within 1km.

FIELD SURVEY – HABITATS

Extended Phase 1 Survey

3.8 The survey was undertaken on 30th April 2025, during weather conditions that were dry and sunny. Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016[9] comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and other features of interest. The frequencies at which plant species occurred were noted using the DAFOR[10] method. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.

3.9 Habitats were also assessed for their potential to support protected or notable species including any incidental sightings of birds recorded during the walkover. Where potentially suitable habitats were observed during the scope of this assessment, detailed protected species surveys were undertaken using methodology detailed below.

3.10 The distribution and extent of any invasive species listed on Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (*as amended)* were also noted during the survey.

UK Habitat Classification (UK Hab)

3.11 A summary of the habitats present on-site is provided within the report including UK Hab equivalent habitats (from the UK Habitats Classification methodology[11]) for the purpose of the Biodiversity Impact Assessment (BIA).

FIELD SURVEY – FAUNA

Badger *Meles meles*

3.12 A badger survey was undertaken on the 30th April 2025, within the site and 30m beyond the boundary where possible. The survey followed standard methodology as outlined by

[9] JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7 10 https://bsbi.org/wp-content/uploads/dlm_uploads/Sampling_Guidance_-_Annex_1_v4_April_2011.pdf
[11] ukhab – UK Habitat Classification

Natural England (2015)[12] and Harris *et al* (1989)[13], Creswell *et al.* (1990)[14]. Field signs searched for include: setts, earth mounds, bedding material, mammal paths, latrines, snuffle holes, prints, hairs, scratching posts etc.. The identification of some signs on their own does not necessarily provide conclusive evidence of the presence of badgers.

3.13 The status and level of activity associated with a sett are categorised using the following information;

- Main sett: usually continuously used with significant signs of activity, including a large number of holes and spoil mounds;
- Annexe sett: usually found close to a main sett and connected to it by well used paths. These setts are not continuously occupied;
- Subsidiary: lesser-used setts usually comprising a few holes and without associated well-used paths.
- Outlier: one or two holes without well-worn paths, with very sporadic use.

3.14 The level of activity is determined by the following parameters;

- Active: clear of debris, trampled spoil mounds and obviously active e.g., presence of prints, hair and bedding;
- Disused: partially or completely blocked or collapsed.

Bats

Daytime Bat Walkover (DBW)

3.15 The DBW was undertaken on the 30th April 2025 by an ecologist a Natural England level 2 and 4 class licence to survey for bats.

Roosts – Structures

Internal & External Building Visual Inspection

3.16 All buildings within the site boundary were assessed for their potential to support roosting bats using statutory guidance (Natural England[15]) and best practice survey methodology[16].

3.17 The buildings were inspected externally using close focussing binoculars, a high-powered torch and endoscope where appropriate. Features such as small gaps around or under barge/soffit/fascia boards, windows, lintels, flashing, external pipework and or raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as access points, were noted. Evidence that bats actively used such features included: staining

[12]Natural England (2015) Badger Surveys and Mitigation accessed May 2021 https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#survey-methods (accessed December 2019)
[13] Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers.* The Mammal Society.
[14] Cresswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.
[15] https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed March 2020)
[16] Collis, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London.

within and around the gaps or bat droppings / urine staining under gaps. The presence of cobwebs and or general detritus within and around potential access points was used as an indicator that bats had not recently used the area to access the building.

3.18 Where accessible and safe to do so, the interiors of the building including roof voids and cellars were assessed for evidence of bat activity and for the potential to be used by roosting bats. Evidence of a roost would be determined by the presence of live or dead bat(s), concentrated piles or scattered bat droppings, feeding remains such as insect wing fragments as well as scratch marks and or staining from mammalian fur oil/ urine.

3.19 An assessment was made on the level of bat roosting potential offered by the structures, based on the presence of the features detailed above. Table 1 below broadly classifies the potential categories and discusses the relevance of such features, where present.

Table 1: Bat Roost Potential Classification Buildings - Based on Table 4.1 and Table 7.3 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023).

Classification / Suitability	Description of Roosting Habitat within buildings	Likely Further Survey Work
None	No features onsite to be used by any roosting bats at any time of year.	No further survey required.
Negligible	No obvious features likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No further survey required.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).	Nocturnal presence / likely absence surveys are likely to be required to give confidence in a negative result. At least one dusk emergence survey during the appropriate survey period. Further roost characterisation surveys would be required should a roost be confirmed that will be affected by development proposals.
Moderate	A structure with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation site).	At least two nocturnal presence / likely absence required to give confidence in a negative result. Two dusk emergence surveys during the appropriate period. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart. Should a roost be confirmed further roost characterisation surveys be required.

Classification / Suitability	Description of Roosting Habitat within buildings	Likely Further Survey Work
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer period of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	At least three nocturnal presence / absence surveys required to give confidence in a negative result. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart.
Confirmed Roost	Evidence of roosting bats in the form of live or dead bats, droppings, urine staining, mammalian fur oil staining etc.	At least three nocturnal surveys to ascertain the status of the roost during appropriate survey period. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart.

Ground Level Tree Assessment (GLTA)

3.20 All trees to be affected by the proposals within the survey area were assessed for their potential to support roosting bats using statutory guidance (Natural England, 2019)[17] and best practice survey methodology (Collins, 2013[18] and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)[19].

3.21 The trees were inspected from the ground using close focussing binoculars, a high-powered torch, and an endoscope where appropriate. Potential Roosting Features (PRF) for bats such, holes / cavities, loose bark, cracks / splits, occluded bark, and gaps behind ivy stems (please note that this list is not exhaustive) were sought (Based on P16, *British Standard 8596:2015*[20]). Other factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value of the PRF. Signs indicating possible use by bats were also recorded such as bat droppings, odour, scratches, staining and audible sounds.

3.22 An assessment was made on the level of bat roosting potential offered by the trees, based on the presence of the features detailed above. Table 2 below outlines the suitability categories as per the Bat Survey Guidelines[18] which now supersedes The British Standard Document[20] which groups trees with moderate and high potential.

Table 2: Suitability of Trees for Bat Roosts - Based on Table 4.2 of Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed.), The Bat Conservation Trust, London

Classification / Suitability	Description	Likely Further Survey Work
NONE	Either no PRFs in the tree or highly unlikely to be any.	None.

[17] Bats: surveys and mitigation for development projects: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed 12/11/2019)
[18] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.
[19] Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn*). JNCC, Peterborough.
[20] British Standard (2015) BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

Classification / Suitability	Description	Likely Further Survey Work
FAR	Further assessment required to establish if PRFs are present in the tree.	Aerial assessment of further GLTA required by a licenced or accredited bat licence worker.
PRF	A tree with at least one PRF present	PRF Inspection Survey (Aerial Assessment). If this is not possible alternative access methods such as a MEWP and/or nocturnal survey work must be considered.

Foraging / Commuting Habitat

3.23 The potential for the site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard being given to the presence of continuous treelines providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

Great Crested Newt (GCN) *Triturus cristatus*

Aquatic Habitat

3.24 OS mapping and online aerial imagery were analysed for the presence of on and off-site water bodies within 500m of the site in accordance with Natural England guidance[21].

Terrestrial Habitats

3.25 An assessment of the suitability of the terrestrial habitats within the site to support GCN was completed within the subject site. Suitable terrestrial habitat includes shelter habitat such as scrub and rank vegetation and habitat that could provide suitable hibernation sites such as rubble piles, tussock grassland and compost heaps.

Reptiles

3.26 An assessment of the suitability of the habitats present to support common reptile species was completed at the time of the habitat survey. This involved a review of habitats and habitat structure suitable for the shelter of reptiles such as areas of scrub and woodpiles, grassland with well developed, varied structure; and also, the appropriate juxtaposition of areas suitable for basking shelter and forage/hunting. This assessment was based on the methodology detailed in the Herpetofauna Workers Manual (Gent and Gibson, 1998)[22], and Froglife Advice Sheet 10 – Reptile Survey (Froglife 1999)[23].

Other species

[21] Natural England: *Standing Advice Sheet: Great Crested Newts* Paragraph 4: 4.1
[22] Gent, A.H., & Gibson, S.D., *eds* 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.
[23] Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

3.27 Any sightings, evidence of or suitable habitats for other protected fauna, local Biodiversity Action Plan (BAP) species or otherwise notable species was recorded during the survey.

Survey Limitations

3.28 Internal access was possible into the majority of the buildings. However, given the extensive nature of the buildings a thorough search for evidence of bats was not considered to be reasonable (given the length of time this would take). As such to compensate for this it is recommended that any low potential buildings are subject to at least two nocturnal surveys between May – August, with one of these to be a dawn survey.

3.29 Internal access was also not possible at the time of the survey into building BA which was assessed as providing moderate potential. It is likely that that a roof void is present. To compensate for the lack of access (in accordance with the Bat Survey Guidelines) an additional nocturnal survey must be undertaken. However, if internal access is subsequently obtained and it is possible to complete the assessment this building may then potentially be downgraded and or require less nocturnal survey effort.

3.30 Previous reporting advised that (using only external assessments) *"A bespoke level and type of survey would need to be agreed with the local authority."* Given the internal access possible across the site and into the buildings which NVA's can be utilised from vantage points to adequately see the site, surveys can be undertaken in accordance the Bat Survey Guidelines and thus a bespoke method was not deemed necessary.

3.31 A small area of the site to the rear of building BI was not accessible to undertake the habitat assessment. However, trees and scrub were visible in this area from a vantage point and have been mapped accordingly.

3.32 Access to the area under the buildings where the river flows is not possible due to health and safety, this limits the assessment in relation to bats (particularly hibernation potential). Direct access along the banksides is also not possible, which limits the ability to search for evidence of species such as water vole and otter.

4.0 RESULTS

DESK STUDY

4.1 A summary of relevant information provided by third party consultees is provided below. The original data has not been included in this report and a summary of the relevant findings is provided upon Figure 1.

Statutory Designated Sites

4.2 No internationally designated sites occur within the site boundary. Three internationally designated site occurs within 10km of the site. South Pennine Moors SAC , South Pennine Moors Phase 2 SPA and Peak District Moors (South Pennine Moors Phase1) SPA.

4.3 No national or regionally important statutory sites occur within the site. Two sites of national importance occur within 2km of the site, South Pennine Moors SSSI is located c.987m north and west of the site boundary; and Dark Peak SSSI c.755m south of the site.

4.4 Consultation with MAGIC site check confirms that the site lies within the 500-1000m Impact Risk Zone (IRZ) for South Pennine Moors SSSI and Dark Peak SSSI. Development proposals / risks identified that could impact the SSSI are:

- **Infrastructure:** Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.
- **Wind and Solar:** Solar schemes with a footprint > 0.5ha, all wind turbines.
- **Minerals, Oil and Gas:** Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
- **Rural Non-Residential:** Large non-residential developments outside of existing settlements/urban areas where the net additional gross internal floorspace is > 1,000m² or the footprint exceeds 0.2ha.
- **Residential:** ***Residential development of 50 units or more.***
- **Rural Residential:** Any residential development of 10 or more units outside of existing settlements/urban areas.
- **Air Pollution:** Any industrial/agricultural development that could cause AIR POLLUTION (including: industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 200m² & manure stores > 250 tonnes).
- **Combustion:** General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.
- **Waste:** Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
- **Compost:** Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
- **Water Supply:** ***Any development needing its own water supply eg remote rural housing that is not connected to a mains water supply, OR large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is > 1,000m².***

4.5 Of the above it is anticipated that Residential and Water Supply could pose a risk to the SSSI as the development proposals has not yet been quantified (i.e. number of residential units and floor space of the buildings and their use).

4.6 No sites of local importance with a statutory designation were located within site or within 1km of the site boundary.

Non-Statutory Designated Sites

4.7 No sites of local importance with non-statutory designation occur within the site. Three sites of local importance with non-statutory designation were present within 1km of the site boundary (see Table below).

Ancient Woodland and Ancient / Notable Trees

4.8 There are no parcels of ancient woodland within the site or within 1km of the site boundary.

4.9 There are a total of two notable trees within 1km of the site boundary, details of which are listed below:

- 410m south west (SW) (SE 04810 11257) Notable tree: Common horse chestnut *Aesculus hippocastanum;*
- 350m west (W) (SE 04603 11571) Notable tree: Sweet chestnut *Castanea sativa.*

Habitats of Principal Importance (HPI)

4.10 No HPIs occur within the site. Ninety-five parcels of eight different HPI's occur within 1km of the site.

Table 3: Summary of Designated Sites and Notable Habitats

Site Name	Designation	Proximity to Site (approximate)	Description
South Pennine Moors	SAC	c.987m north and west	The site is representative of upland dry heath at the southern end of the Pennine range, the habitat's most south-easterly upland location in the UK. Qualifies for Annex I habitats **4030 European dry heaths, 7130 blanket bogs, 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles[24].**
Peak District Moors Phase 1	SPA	755m South (S), closest parcel	Used regularly by 1% or more of Great Britain's population of merlin, golden plover and short-eared owl *Asio flammeus* (qualifying species). The site also supports a rich upland breeding bird assemblage which, includes important numbers of Peregrine *Falco peregrinus.*
South Pennine Moor Phase 2	SPA	c.987m north and west	Important assemblage of breeding moorland and moorland fringe birds - golden plover *Pluvialis apricaria* and merlin *Falco columbarius.*

[24] https://sac.jncc.gov.uk/site/UK0030280

Site Name	Designation	Proximity to Site (approximate)	Description
			Also qualifies with a diverse assemblage of breeding migratory birds of moorland and moorland fringe habitats including: golden plover, lapwing *Vanellus vanellus*, dunlin *Calidris alpina,* snipe *Gallinago gallinago*, curlew *Numenius arquata*, redshank *Tringa totanus*, common sandpiper *Actitis hypoleucos*, short-eared owl *Asio flammeus*, whinchat *Saxicola rubetra*, wheatear *Oenanthe oenanthe,* ring ouzel *Turdus torquatus* and twite *Carduelis flavirostris.*
South Pennine Moor	SSSI	c.987m north and west	The site is the largest area of unenclosed moorland within West Yorkshire and contains the most diverse and extensive examples of upland plant communities in the county. Extensive areas of blanket bog occur on the upland plateaux and are punctuated by species rich acidic flushes and mires. There are also wet and dry heaths and acid grasslands.[25]
Dark Peak	SSSI	c.755m South (S), closest parcel	The combination of plateaux blanket mires; wet and dry heaths and acid grasslands, together with associated flushes and mires on moorland slopes, represents an extensive tract of semi-natural upland vegetation typical of and including the full range of moorland vegetation of the South Pennines. Several vegetation types, plants and animals are at either the southern or northern limits of their distribution in this country. The moorland breeding bird assemblage is of great regional and national importance. It includes internationally important populations of several species, listed in the European Commission Birds Directive as requiring special conservation measures.[26]
Huddersfield Narrow Canal	LWS	30m North (N)	During the winter visit, a range of species were recorded along this canal stretch, including – *Typha latifolia, Phalaris arundinacea, Equisetum fluviatile, Juncus effusus, Potamogeton, Carex, Callitriche, Filipendula ulmaria, Chrysosplenium oppositifolium, Epilobium hirsutum, Equisetum fluviatile, Equisetum palustre, Glyceria maxima, Lythrum salicaria, Mentha aquatic, Rorippa nasturtium-aquaticum* and *Iris pseudacorus*

[25] https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1007196.pdf
[26] https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003028.pdf

Site Name	Designation	Proximity to Site (approximate)	Description
Green Hill Clough	LWS	760m N	This site is an area of woodland on the steep slopes of Green Hill Clough. It appears to be seminatural on steeper slopes near the stream, with some areas of plantation to the north and west.
Drop Clough	LWS	987m N	This site is mainly acid woodland in a very steep sided valley either side of Park Gate Clough to the south and Dry Clough to the west.
Blanket bog	HPI	565m Northwest (NW)	There are a total of five parcels of blanket bog within 1km of the site boundary.
Deciduous woodland	HPI	7m East (E), closest parcel	There are a total of thirty-seven parcels of deciduous woodland within 1km of the site boundary.
Good quality semi-improved grassland	HPI	826m NW, closest parcel	There are a total of two parcels of good quality semi-improved grassland within 1km of the site boundary.
Grass moorland	HPI	760m S, closest parcel	There are a total of eight parcels of grass moorland within 1km of the site boundary.
Lowland heathland	HPI	385m NW, closest parcel	There are a total of nine parcels of lowland heathland within 1km of the site boundary.
Upland flushes fens and swamps	HPI	550m Southeast (SE), closest parcel	There are a total of two parcels of upland flushes fens and swamps within 1km of the site boundary.
Upland heathland	HPI	460m S, closest parcel	There are a total of twenty-six parcels of upland heathland within 1km of the site boundary.
No main habitat but additional habitats present	HPI	395m NW, closest parcel	There are a total of six HPI with no main habitat but additional habitats present within 1km of the site boundary.

Local Biodiversity Action Plan (LBAP)

4.11 Kirklees Biodiversity Action Plan[27] contains eleven Habitat Action Plans for:

- Blanket bog;
- Heathland;
- Woodlands;
- Species-rich hedgerows;
- Meadows;
- Lowland cry acid grassland;

[27] https://bradleynewsdotorg.wordpress.com/wp-content/uploads/2012/06/biodiversityactionplan.pdf

- Cereal field margins;
- Reedbeds;
- Scrubland;
- Semi-natural grasslands; and
- Riverine habitats.

4.12 There are also seven Species Action Plans for:

- Water vole *Arvicola amphibius*;
- White-clawed crayfish *Austopotamobius pallipes*;
- Red wood ant *Formica rufa*;
- Floating water plantain *Luronium natans*;
- Great crested newt *Triturus cristatus*;
- Pillwort *Pilularia globulifera; and*
- Marsh helleborine *Epipactis palustris*.

West Yorkshire Habitat Network (WYHN)

4.13 The West Yorkshire Wildlife Habitat network has been produced by combining District Wildlife Habitat Networks drawn up between 2011 and 2016 by Wakefield District Council and West Yorkshire Ecology Service (acting on behalf of Bradford, Leeds, Kirklees and Calderdale District Councils). At the nearest point the WYHN is located c. 45m north of the site boundary (Figure 1).

Soil Type

4.14 The site is located partially within a parcel mapped as Soilscape 16; this is described as very acid loamy upland souls with a wet peaty surface. This information was provided by Landis[28] and broader details of the soil structure can be found below:

- Drainage: Surface wetness
- Fertility: Very low
- Landcover: Moorland rough grazing forestry and grassland
- Habitats: Grass moor and heather moor with flush and bog communities in wetter parts
- Carbon: High

4.15 The site is also located partially within a parcel mapped as Soilscape 6; this is described as freely draining slightly acid loamy soils. This information was provided by Landis and broader details of the soil structure can be found below:

- Drainage: Freely draining

[28] https://www.landis.org.uk/soilscapes/

- Fertility: Low
- Landcover: Arable and grassland
- Habitats: Neutral and acid pastures and deciduous woodlands; acid communities such as bracken and gorse in the uplands
- Carbon: Low

Protected / Notable Species Records

4.16 Records of protected and notable species provided by desk study consultees are provided in the Table below. The species records have been filtered to comprise relevant protected and / or notable species within 1km (and bats within 2km) of the survey area. The locations are shown on Figure 1.

Table 4: Summary of Relevant Protected and Notable Species Records

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Bat species					
Common pipistrelle	*Pipistrellus pipistrellus*	Regs (Sch2), WCA (Sch5), WYBAP, KBAP	Roost: 20 Field Record: 39 Total: 59	Roost: 118m south east (SE) Field record: 20m west (W)	Roost: 1m Field record: 1m
Soprano pipistrelle	*Pipistrellus pygmaeus*	Regs (Sch2), NERC (SPI), WCA (Sch5), KBAP, WYBAP	Roost: 0 Field Record: 3 Total: 3	Roost: N/A Field record: 840m northeast (NE)	Roost: N/A Field record: 1km
Pipistrelle bat species	*Pipistrellus* spp.	Regs (Sch2), WCA (Sch5)	Roost: 3 Field Record: 1 Total: 4	Roost: 435m east (E) Field record: 1423m north west (NW)	Roost: 100m Field record: 10m
Noctule bat	*Nyctalus noctula*	Regs (Sch2), NERC (SPI), WCA (Sch5), WYBAP, KBAP	Roost: 0 Field Record: 5 Total: 5	Roost: N/A Field record: 1014m NE	Roost: N/A Field record: 100m
Leisler's bat	*Nyctalus leislerii*	Regs (Sch2), WCA (Sch5), WYBAP, KBAP	Roost: N/A Field Record: 3 Total: 3	Roost: N/A Field record: 840m NE	Roost: N/A Field record: 1km
Daubenton's bat	*Myotis daubentonii*	Regs (Sch2), WCA (Sch5), WYBAP, KBAP	Roost: N/A Field Record: 7 Total: 7	Roost: N/A Field record: 20m W	Roost: N/A Field record: 1m
Natterer's bat	*Myotis nattereri*	Regs (Sch2), WCA (Sch5), WYBAP, KBAP	Roost: 0 Field Record: 1 Total: 1	Roost: N/A Field record: 840m NE	Roost: N/A Field record: 1km

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Myotis bat species	*Myotis* spp.	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 9 Total: 9	Roost: N/A Field record: 134m southwest (SW)	Roost: N/A Field record: 100m
Brown long-eared bat	*Plecotus auritus*	Regs (Sch2), NERC (SPI), WCA (Sch5), WYBAP, KBAP	Roost: 1 Field Record: 7 Total: 8	Roost: 1064m NE Field record: 999m W	Roost: 1m Field record: 1m
Unidentified bat species	-	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 5 Total: 5	Roost: N/A Field record: 350m north (N)	Roost: N/A Field record: 100m
Other mammal species					
Brown hare	*Lepus europaeus*	WCA (Sch5), NERC (SPI), WYBAP, KBAP	1	841m E	100m
Mountain hare	*Lepus timidus*	WCA (Sch5), NERC (SPI), WYBAP, KBAP	1	715m SW	100m
West European hedgehog	*Erinaceus europaeus*	NERC (SPI), WYBAP, KBAP	2	268m N	1m
Bird species					
Black-headed gull	*Chroicocephalus ridibundus*	BoCC (Amber)	3	419m SE	1km
Common bullfinch	*Pyrrhula pyrrhula*	BoCC (Amber), WYBAP, KBAP	3	823m NW	100m
Common gull	*Larus canus*	BoCC (Amber)	1	290m N	10m
Common sandpiper	*Actitis hypoleacos*	BoCC (Amber)	2	823m NW	100m
Dipper	*Cinclus cinclus*	BoCC (Amber)	2	823m NW	100m
Dunnock	*Prunella modularis*	BoCC (Amber), WYBAP, KBAP	2	290m N	10m
Eurasian curlew	*Numenius arquata*	BoCC (Red), NERC (SPI), WYBAP, KBAP	6	658m SE	100m
Golden plover	*Pluvialis apricaria*	BoCC (Green), WYBAP, KBAP	1	976m SW	1m
Greenfinch	*Chloris chloris*	BoCC (Red)	2	823m NW	100m

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Grey wagtail	*Motacilla cinerea*	BoCC (Amber)	3	846m SW	1m
Hobby	*Falco subbuteo*	BoCC (Green), WCA (Sch1_part1)	1	949m NW	1m
House martin	*Delichon urbicum*	BoCC (Red)	2	823m NW	100m
House sparrow	*Passer domesticus*	BoCC (Red), NERC (SPI), WYBAP, KBAP	6	290m N	100m
Kestrel	*Falco tinnunculus*	BoCC (Amber), WYBAP, KBAP	1	982m SW	100m
Kingfisher	*Aldeco atthis*	BoCC (Green), WCA (Sch1_part1)	1	42m N	100m
Lapwing	*Vanellus vanellus*	BoCC (Red), NERC (SPI), WYBAP, KBAP	4	823m NW	100m
Linnet	*Linaria cannabina*	BoCC (Red), KBAP	6	778m N	1m
Mallard	*Anas platyrhynchos*	BoCC (Amber)	3	823m NW	100m
Meadow pipit	*Anthus pratensis*	BoCC (Amber)	6	419m SE	1km
Mistle thrush	*Turdus viscivorus*	BoCC (Red)	3	823m NW	100m
Moorhen	*Callinula chloropus*	BoCC (Amber)	2	823m NW	100m
Redwing	*Turdus iliacus*	BoCC (Amber), WCA (Sch1_part1)	1	540m NE	10m
Reed bunting	*Emberiza schoeniclus*	BoCC (Amber), NERC (SPI), WYBAP, KBAP	1	290m N	10m
Ring ouzel	*Turdus torquatus*	BoCC (Red), NERC (SPI), WYBAP, KBAP	1	419m SE	1km
Rook	*Corvus frugilegus*	BoCC (Amber)	2	823m NW	100m

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Short-eared owl	*Asio flammeus*	BoCC (Amber), WYBAP, KBAP	2	797m SW	10m
Skylark	*Alauda arvensis*	BoCC (Red), NERC (SPI), WYBAP, KBAP	2	442m SW	100m
Song thrush	*Turdus philomelos*	BoCC (Amber), WYBAP, KBAP	1	447m S	10m
Sparrowhawk	*Accipiter nisus*	BoCC (Amber)	1	956m N	1m
Starling	*Sturnus vulgaris*	BoCC (Red), WYBAP, KBAP	4	823m NW	100m
Swallow	*Hirundo rustica*	BoCC (Green), WYBAP, KBAP	3	823m NW	100m
Twite	*Caruelis flavirostris*	BoCC (Red), KBAP	5	601m NW	100m
Whooper swan	*Cygnus cygnus*	BoCC (Amber), WCA (Sch1_part1)	1	822m NE	100m
Willow warbler	*Phylloscopus trochilus*	BoCC (Amber)	2	823m NW	100m
Woodpigeon	*Columba palumbus*	BoCC (Amber)	2	823m NW	100m
Wren	*Troglodytes troglodytes*	BoCC (Amber)	4	823m NW	100m
Amphibian species					
Common toad	*Bufo bufo*	WCA (Sch5), NERC (SPI), WYBAP, KBAP	1	292m N	1m
Other species					
Signal crayfish	*Pacifastacus leniusculus*	WCA (Sch9)	1	277m NW	1m
Small heath butterfly	*Coenonympha pamphilus*	NERC (SPI), WYBAP	2	840m NE	1km
White-letter hairstreak butterfly	*Satyrium w-album*	NERC (SPI), WCA (Sch5)	1	913m NW	1km

Status Key: Regs - The Conservation of Habitats and Species Regulations 2017 (*as amended*). WCA - The Wildlife and Countryside Act 1981 (*as amended*). Sch 1 - Schedule 1. Sch 2 – Schedule 2. Sch5 - Schedule 5. Sch8 - Schedule 8. Sch9 - Schedule 9. NERC - England Natural Environment and Rural Communities Act (2006) Section 41. SPI - Species of

Principal Importance. BoCC - Birds of Conservation Concern. WYBAP – West Yorkshire Biodiversity Action Plan. KBAP – Kirklees BAP.

4.17 There are no records of badger *Meles meles* within 1km of the site. The site does fall within an area of increased probability of badger activity.

4.18 A search of the MAGIC online resource revealed there were four European Protected Species Licences (EPSL) relating to bats within 2km of the site boundary. The details of which are listed below:

- Licence reference: 2015-12005-EPS-MIT for common pipistrelle located c. 970m northwest (05/08/2015 to 01/08/2020);
- Licence reference: 2015-12005-EPS-MIT-1 for common pipistrelle located c. 970m northwest (17/03/2016 to 30/06/2021);
- Licence reference: 2018-38561-EPS-MIT for common pipistrelle and soprano pipistrelle located c. 1020m northeast (01/10/2019 to 31/12/2020).
- Licence reference: EPSM2010-2677 for common pipistrelle located c. 1970m northwest (17/01/2011 to 01/01/2012).

4.19 There are no EPSL's relating to GCN or records of GCN surveys from Natural England's Open Dataset[29] within 1km of the site boundary.

4.20 The site does not fall within an area of District Level Licensing (DLL).

HABITATS

Buildings & Hard Standing (u1b and u1b5)

4.21 The site is dominated by buildings and hardstanding.

Amenity Grassland (Modified Grassland, g4)

4.22 Small areas of amenity grassland occurred between the buildings. Creeping bent *Agrostis stolonifera* was the dominant grass species identified, with moss *Bryophyte* species also being dominant in some areas. Ribwort plantain *Plantago lanceolata*, creeping buttercup *Ranunculus repens* and dandelion *Taraxacum officinale* agg. were abundant with locally frequent common nettle *Urtica dioica*, frequent meadow buttercup *Ranunculus acris* and white clover *Trifolium repens.* Common sorrel *Rumex acetosa* also occurred occasionally. Rarely occurring species were common ragwort *Senecio jacobaea,* horsetail *Equisetum* species, fern *Pteridium* species and willow herb *Epilobium* species. Small saplings of sycamore *Acer pseudoplatanus*, goat willow *Salix caprea* and cherry Prunus species were also noted.

Tall Ruderal Vegetation

4.23 A small area of tall ruderal vegetation was present in between the buildings. This was dominated by rosebay willowherb *Chamerion angustifolium* with occasional bramble

[29] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019

Rubus fruticosus agg. Saplings of sycamore and cherry were again noted. Cuckoo-flower *Cardamine pratensis* was also noted to occur in this habitat occurring rarely.

Ephemeral Short Perennial Vegetation

4.24 A small area of ephemeral short perennial vegetation was present in between the buildings. This was dominated by moss with a saxifrage *Saxifraga* species occurring rarely.

Bramble Scrub

4.25 Small areas of scattered scrub dominated by bramble occurred between the buildings. Saplings of other species such as rowan *Sorbus aucuparia* and cherry occurred rarely.

Photograph 1: Amenity grassland and area of bramble scrub (30.04.25).

Photograph 2: Area if bramble scrub (30.04.25).

Scattered Trees/ Scrub

4.26 Four small silver birch *Betula pendula* trees and scattered scrub comprising of butterfly-bush *Buddleja davidii* were noted to occur within an inaccessible area of hardstanding in the north of the site. These were visually identified from adjacent offsite land.

Photograph 3: Inaccessible area with small trees and scrub (30.04.25).

Photograph 4: The River along the north of the site running under the building on site.

River Colne

4.27 The River Colne runs immediately adjacent the northern site boundary and is culverted beneath the buildings in the north of the site.

Photograph 3: Looking north west along the River Colne (30.04.25).

Photograph 2: The northern bank of the River Colne (30.04.25).

FAUNA

Badger

4.28 From the desk study no records of badger occur within 1km of the site.

4.29 No evidence of the presence of this species was identified during the survey. The site offers little in the way of suitable habitat for sett making and is extremely limited for foraging. Given the location and isolated nature of the site to badger it is considered to be unsuitable for this species as and such badger will not be considered further.

Bats

4.30 From the desk study a number of bat records occur within 2km of the site, with roosts of brown long-eared bats, common pipistrelle and a pipistrelle species present.

Roosts – Trees & Structure/ Buildings

Buildings

4.31 A complex series of large buildings is present across the site; these are outlined upon Figure 2 and with detailed assessments provided in Appendix B. In summary, building BE.1 was assessed as providing high bat roosting potential; building BA moderate bat roosting potential; building BB, BD.1, BD.2, BE.2, BF.1, BF.2, BG, BH, BI, BJ.1, BJ.2, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT were assessed as providing low bat roosting potential. BF.2 and BC were assessed as providing negligible bat roosting potential.

4.32 Hibernation potential was noted within the cellar / basement of BF.1 and BD.1, and within the stonework of the buildings. In addition, the area beneath BG, BK, BM, BL within the culvert and area of river that flows under BE.1 are inaccessible to assess which could provide suitable hibernation potential for bats. Buildings BB, BE.1, BE.2, BF.2, BG, BH, BI, BJ.2, BP comprising of stone walls have gaps into the stonework could also be suitable for hibernating bats.

Trees

4.33 Only four small silver birch trees were noted within an inaccessible area of the site. From the vantage point that they were viewed there did not appear to be any suitable PRFs upon the trees, which were immature.

Foraging / Commuting Habitat

4.34 The majority of the site comprised of buildings and hardstanding which is unsuitable for foraging bats. The small areas of limited habitat in the centre of the site between the buildings is not likely to form any significant foraging recourse for the local bat population.

4.35 The River Colne however is likely to represent a significant resource for the local bat population; this will likely be part of a commuting route for many local bat species. The River section located immediately north of the site represents a better foraging resource than the section culverted within the site.

Great Crested Newts (GCN)

4.36 From the desk study no records of GCN occur within 1km of the site.

4.37 No suitable breeding waterbodies are present on site for GCN. The site is also considered to be isolated due to the presence of the River Colne and roads / the built up urban environment being present on all boundaries. Terrestrial habitats on site are of limited extent and not suitably connected for GCN. Consequently, GCN are considered to be likely absent form the site and will not be considered further.

Reptiles

4.38 From the desk study no record of reptiles occur within 1km of the site.

4.39 The site comprised predominantly unsuitable habitat for reptiles and lacked suitable areas of foraging, shelter and ecotones required for these species. As such reptiles are considered likely absent and will not be considered further.

Birds

4.40 From the desk study a large number of bird species occur within 1km of the site including Schedule 1 species such as kingfisher, hobby, redwing and whooper swan.

4.41 The buildings on site are suitable for nesting birds. Within the majority of buildings numerous feral pigeons *Columba livia* are breeding. Jackdaw *Coloeus monedula* was also noted within building BF.1. Given the height of the buildings, they are also considered to be suitable for species such as peregrine *Falco peregrinus* though no evidence of the presence of this species was noted during the survey.

4.42 Scattered scrub and trees also provide some limited but suitable nesting habitats. The River Colne also contained suitable nesting habitat for some species such as mallard

though the banksides immediately adjacent to the site were considered unsuitable alongside the site for kingfisher.

Otter

4.43 From the desk study no records of otter were identified.

4.44 The River Colne is suitable for otter foraging and commuting. There are no locations within the site suitable for breeding holts or couches for this species.

Water Vole

4.45 From the desk study no records of water vole were identified within 1km of the site.

4.46 The River Colne is suitable for water vole foraging and commuting. There are no locations within the site suitable for breeding burrows for water vole.

White Clawed Crayfish

4.47 The River Colne contains potentially suitable habitat for white clawed crayfish.

4.48 From the desk study no records of white clawed crayfish were identified. The historical Kirklees Biodiversity Action Plan[30] referenced in the 2023 report outlines this species as present in the River Colne, however, the updated Action Plan no longer mentions this species within this river[31].

4.49 Signal crayfish were noted to occur within the River Colon c.227m upstream. As such, it is considered unlikely that this species remains present within the River Colne and no further survey work is considered necessary.

Other

4.50 Suitable habitat is present, though limited in extent on site for hedgehog, an SPI.

4.51 Small heath butterfly and white-letter hairstreak butterfly were identified within 1km of the site from the desk study. The site is considered to be unsuitable for these species.

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

STATUTORY SITES

International Sites

5.1 The South Pennine Moors SAC, South Pennine Moor Phase 2 SPA and Peak District Moors Phase 1 SPA occur within 1km of the site.

5.2 This SAC site is designated for European dry heath, blanket bog and old sessile oak woods.

[30] Envirotech, Preliminary Ecological Appraisal, February 2023
[31] https://bradleynewsdotorg.wordpress.com/wp-content/uploads/2012/06/biodiversityactionplan.pdf

5.3 The SPA's are designated for their nationally important numbers of breeding moorland and moorland fringe birds (golden plover, merlin and short-eared owl), as well as a diverse assemblage of breeding migratory birds.

5.4 Habitat Regulation Assessments (HRA's) are required for all developments and strategic plans that have the potential to impact upon internationally designated sites. The assessment follows a precautionary approach in considering the effects of development projects or plans on the qualifying features of any European site.

5.5 Stage One of the HRA process is Screening – also known as the Test of Likely Significant Effect (TOLSE). If the Competent Authority cannot screen out a likely significant effect LSE either alone or in combination with other plans or projects, an appropriate assessment will be required.

5.6 Given the distance of the SAC / SPA's from the site the proposals will not result in any physical loss of habitats from the SAC / SPA's or impacts such as light and noise pollution during the construction phase.

5.7 Habitats within the site are not suitable for the qualifying bird species of the SPA. Thus, the site does not form functionally linked land and loss / fragmentation and / or damage to breeding and / or feeding habitat of the qualifying bird species will not occur.

5.8 Post development given the distance of the SPA's from the site pet predation is not considered to be a likely impact upon the breeding bird species within the SPA's.

5.9 However, given that the development proposal includes residential and commercial use (the sizes of which are not yet quantified) there are potential LSE from air pollution and recreational use (fire (arson), urban edge effect, degradation, disturbance to birds) post development and as such an Appropriate Assessment must be undertaken.

National Sites

South Pennine Moors SSSI and Dark Peak SSSI

5.10 The South Pennine Moors SSSI occurs within c.987m of the site and Dark Peak c.755m. These sites are designated for moorland, blanket bog, species rich acidic flushes and mires, wet and dry heaths and acid grassland and blanket mires.

5.11 Given the distance of the SSSI's from the site the proposals will not result in any physical loss of habitats from the SSSI's or impacts such as light and noise pollution during the construction phase.

5.12 The development site lies within the 500m – 1km Impact Risk Zone (IRZ) of the SSSI's. The development proposal includes residential and commercial use (the sizes of which are not yet quantified). For residential developments of more than 50 units further assessment / mitigation will be necessary to avoid post development impacts as although no direct links occur to SSSI's given the distance it is anticipated that residents would use the SSSI for recreation thus there could be post development impacts such as urban edge effect, disturbance / degradation, fire (arson) from recreational use.

5.13 The proposal will also need to be reviewed against the risk criteria "Water Supply" which poses a risk to the SSSI for large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is > 1,000m².

NON-STATUTORY SITES

Huddersfield Narrow Canal LWS

5.14 Huddersfield Narrow Canal LWS is located c.30m north of the site.

5.15 Potential direct (e.g., habitat loss) or indirect impacts (e.g., pollution) are not considered likely to arise upon the LWS during the construction phase given the intervening distance between the site and the LWS site, which is separated from the site by roads and residential properties.

5.16 Post development as there is potential for the site for residential use it's likely that this would result in an increase in use of the LWS for recreation. However, given that public footpaths occur alongside the LWS site this is not anticipated as likely to result in any significant impact.

Green Hill Clough LWS

5.17 Green Hill Clough LWS is located c.760m north of the site.

5.18 Potential direct (e.g., habitat loss) or indirect impacts (e.g., pollution) are not considered likely to arise upon the LWS during the construction phase given the intervening distance between the site and the LWS site.

5.19 Post development as there is potential for the site for residential use it's likely that this would result in an increase in use of the LWS for recreation. However, given that public footpaths occur alongside the LWS site this is not anticipated as likely to result in any significant impact.

Drop Clough LWS

5.20 Drop Clough LWS is located c.987m north of the site.

5.21 Potential direct (e.g., habitat loss) or indirect impacts (e.g., pollution) are not considered likely to arise upon the LWS during the construction phase given the intervening distance between the site and the LWS site.

5.22 Post development as there is potential for the site for residential use it's likely that this would result in an increase in use of the LWS for recreation. However, given that public footpaths occur alongside the LWS site this is not anticipated as likely to result in any significant impact.

Habitats of Principal Importance (HPI)

5.23 A large number of HPI's occur within 1km of the site, the closest of which is deciduous woodland c.7m east of the site along the River Colne.

5.24 Although the closest HPI parcel of deciduous woodland is separated from the site by the road it does however connect to the site via the River Colne. Construction phase impacts could arise from pollution such as via the water (e.g. silt) and also from e.g. dust / light. To mitigate these impacts stringent pollution prevention measures will be required and must be outlined within a Construction and Environmental Management Plan (CEMP).

5.25 Post development given the close proximity of the site from the closest HPI parcel of deciduous woodland a sensitive lighting strategy will be necessary to ensure there are no lighting impact upon the woodland.

5.26 Post development there is no public access to the woodland and the majority of HPI parcels within 1km of the site. Therefore it is not anticipated that there would be any significant impacts from recreation upon HPI's.

West Yorkshire Habitat Network (WYHN)

The West Yorkshire Wildlife Habitat Network occurs at its nearest point c. 45m north of the site. Potential direct (e.g., habitat loss) or indirect impacts such as light / noise are not considered likely to arise upon the WYHN during the construction or operational phases given the intervening distance between the site and the WYHN. However, indirect impacts from dust during construction[32] could result in a negative impact to the habitats within the WYHN. To mitigate these dust pollution prevention measures will be required and must be outlined within a CEMP.

HABITATS

5.27 The habitats within the site offer little ecological value and as such their loss is not considered to be a constraint the proposals.

River Colne

5.28 The River Colne runs along the northern boundary and beneath the site. The culverted section that runs through the site is to be opened up. Care must be taken during construction to avoid direct damage to the watercourse and avoid pollution (such as silt, run-off, light etc.).

5.29 Although now withdrawn Pollution Prevention Guidelines must be adhered to during construction[33]. This must be outlined within a CEMP.

5.30 Post development there could be impacts to the river from pollution (such a littering) due to increase accessibility to the river. Mitigation measures will be required to minimise these impacts such as provision of railings / fencing to prevent access, provision of bins alongside the river and regular litter picks (to include the river). This must be outlined within any long-term management and maintenance plan for the site.

FAUNA

[32] construction-dust-2014.pdf

[33] https://www.gov.uk/government/publications/works-in-near-or-over-watercourses-ppg5-prevent-pollution

Bats

5.31 All species of UK bats and their roosts are listed on the Conservation of Habitats and Species Regulations 2017 (as amended) making it illegal to deliberately disturb any such animal or damage / destroy a breeding site or roosting place of any such animal. Bats are also afforded full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is illegal to recklessly or intentionally kill, injure or take a species of bat or recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection or disturb any animal whilst they are occupying such a place of shelter or protection. Seven bat species, including brown long-eared, noctule and soprano pipistrelle are Species of Principal Importance under the NERC Act 2006.

Buildings

5.32 Building BE.1 was assessed as having high bat roosting potential; building BA moderate bat roosting potential; building BB, BD.1, BD.2, BE.2, BF.1, BF.2, BG, BH, BI, BJ.1, BJ.2, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT were assessed as having low bat roosting potential. BF.2 and BC were assessed as having negligible bat roosting potential.

5.33 Given the complexity of the site, with lack of access and difficulty to fully inspect the buildings (due to their extensive nature) it is recommended that the following number of surveys are undertaken for each building:

- Three nocturnal surveys upon BE.1, with at least one dawn survey.
- Three nocturnal surveys upon building BA unless internal access is possible to complete the assessment. This building may then potentially be downgraded following this assessment.
- Two nocturnal surveys upon BB, BD.1, BD.2, BE.2, BF.1, BF.2, BG, BH, BI, BJ.1, BJ.2, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, with at least one dawn survey.

5.34 All nocturnal survey work must be undertaken using Night Vision Aids and in accordance with the Bat Survey Guidelines, which will require the surveys to be undertaken during May – August with at least 3 weeks in between each survey during suitable weather conditions. In order to assist with further survey work Figure 4 outlies all the require survey positions, some of which are within the buildings on various floors with suitable visibility across the roofs of the buildings.

Hibernation

5.35 Hibernation potential was noted within the cellar / basement of BF.1 and BD.1, and within the stonework of these buildings as well as BB, BE.1, BE.2, BF.2, BG, BH, BI, BJ.2, BP. Additionally, the area beneath BG, BK, BM, BL within the culvert and area of river that flows under BE.1 are inaccessible to assess which could provide suitable hibernation potential for bats. Consequently, given that assessments can't be undertaken of the culverted area, nor survey undertaken of gaps in stonework, which would likely be suitable for individual or small number hibernating bats, works should be timed to avoid the hibernation period for these buildings, and as compensation hibernation boxes and

cavities in the walls of the stone building created to provide potential hibernation sites post development.

Trees

5.36 No trees on site were identified with any bat roosting potential and as such the presence of a bat roost within trees is not a constraint to the proposals.

Bats – Foraging / Commuting Habitat

5.37 The site comprised of unsuitable of limited foraging habitat which is not likely to form any significant foraging recourse for the local bat population.

5.38 However, the River Colne which runs along the northern boundary and beneath the site is likely to represent a significant resource for the local bat population as this will likely be part of a commuting and foraging route for many local bat species.

5.39 The proposals are to open up the culverted section of the river which runs under the site. It is expected that this would improve this resource for bats by increasing the overall habitat quality and ability for bankside vegetation to establish and thus increase invertebrates and therefore foraging for bats.

5.40 Care must be taken to avoid lighting impacts upon the River during the construction and operational phase. No lighting must directly illuminate the river in either phase and light spill from the site must be more than 1 lux post development. This should be outlined within a CEMP; and a lighting strategy will be required to detail post development lighting on the site.

5.41 Post development lighting must be designed in accordance with guidelines from BCT (2023)[34]. In addition, any external lighting (on buildings) adjacent to garden habitats should be downward facing with LED lamps, on motion sensors set to as short as possible timer (1 minute) to minimise impacts from lighting.

Birds

5.42 All wild bird species are protected while nesting by the Wildlife and Countryside Act (1981) (as amended). This legislation protects wild birds, their nests and eggs from intentional harm, and makes it illegal to intentionally kill, injure or take any wild birds; take, damage or destroy the nest of a wild bird while the nest is in use of being build or take / destroy an egg of a wild bird.

5.43 It is also illegal for any person to intentionally or recklessly disturb any wild bird included in Schedule 1 of the WCA (e.g. kingfisher) while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird.

5.44 Given that the majority of the site comprised of buildings and hardstanding, habitats which provide nesting habitats for urban species, it is not considered necessary to undertaken extensive further breeding bird surveys.

[34] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

5.45 Pigeon and jackdaw which were confirmed as breeding on site. There will likely be a loss of nesting habitats for these species from the proposed works. This is not considered likely to significantly affect the overall conservation status of these species which are listed as green (low conservation concern) upon the Birds of Conservation Concern (BoCC) (Stanbury *et al.* 2021)[35].

5.46 The loss of a small number of scattered trees and scrub which offer limited nesting habitats and the small areas of limited foraging habitat from within the site, are not considered to be a constraint in relation to birds as they will be unlikely to offer any significant resource for the local bird population.

5.47 The provision of a new trees, scrub / shrubs and amenity grassland provide new nesting and foraging habitats for the local bird population post development.

5.48 To comply with relevant legislation any removal of suitable nesting vegetation (trees / scrub) and buildings should be timed to avoid the nesting season where possible (March to September inclusive, although dates vary depending on species and weather conditions). As pigeons are known to nest all year round affected areas must be checked for nests in advance by an experienced ecologist. Any active nests identified will be left with a minimum 5m buffer to be identified by the ecologist, until such a time all birds have fledged. This must be outlined within a CEMP.

5.49 In addition, care must be taken to avoid the disturbance of any nesting birds alongside the River Colne during March to September inclusive. A nesting bird check must be undertaken alongside the river prior to any works within 10m of the river during this season (March to September inclusive). Any active nests identified will be left with a buffer to be identified by the ecologist, until such a time all birds have fledged. This must be outlined within a CEMP.

5.50 To compensate for the loss of nesting habitats bird boxes must be incorporated into the fabric of the new buildings, ideally swift boxes should be installed as these are suitable for a wide range of bird species.

Otter/ Water Vole

5.51 The River Colne is suitable for otter and water vole foraging and commuting. Consequently, impacts could arise during the construction and operational phase which could cause disturbance and or lead to this species avoiding utilising the river corridor. To minimise these impacts during construction no works must occur at night, the river must not be lit and during the works to remove the culvert a suitable passage along the river must be provided at all times at night. In addition, pollution prevention guidelines must be adhered to. These must be outlined within a CEMP.

5.52 Post development lighting must be avoided along the river and access limited. A sensitive lighting strategy will be required post development.

[35] Stanbury, A., Eton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win, I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List Assessment of extinction risk for Great Britain. *British Birds* **114:** 723-747.

5.53 Furthermore, to avoid degradation of the river habitat litter picking (including the river) and provision of bins will be necessary. This must be outline within any long-term management and maintenance plan.

White Clawed Crayfish

5.54 It is considered unlikely that this species remains present within the River Colne given the records of Signal crayfish were noted to occur within the River Colon c.227m upstream. Consequently, no further survey work for this species is recommended.

5.55 However, Signal crayfish carry Crayfish plague, these species are also invasive must also be destroyed if captured. Biosecurity measures will be necessary on-site during construction and must be outlined within a CEMP.

Hedgehog

5.56 The development will result in the loss of minimal areas of suitable foraging habitat for hedgehog. Post development compensatory habitat in the form of grassland/ scrub will provide replacement habitats for this species.

5.57 In addition, post development hedgehog gaps must be installed within any new boundary fences to enable access to the garden habitats for this species.

6.0 BIODIVERSITY ENHANCEMENTS

6.1 In accordance with NPPF (2024)[36], The Environment Act 2021[37], and Policy LP30 Biodiversity and Geodiversity of the Adopted Kirklees Local Plan, February 2019[38], the development should incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site.

6.2 The Impact Assessment section identified ecological enhancements that should be incorporated into the development proposal. Outlined below are further additional measures for consideration:

- New landscape planting including trees and shrubs to use native species which bear fruit and nectar.
- Planting of marginal and aquatic vegetation along the river.
- Installation of a variety of bird and bat boxes upon the retained and new buildings.
- Installation of invertebrate boxes within new dwellings e.g., bee houses.

  Any formal lawn areas should where possible be seeded with a species rich flowering lawn mix such as EL1 – Flowering Lawn Mix, Emorsgate Seeds.

[36] https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf
[37] https://www.legislation.gov.uk/ukpga/2021/30/contents
[38] https://consult.kirklees.gov.uk/kse/event/34328/section/ID-5317285-P-13.7#ID-5317285-P-13.7

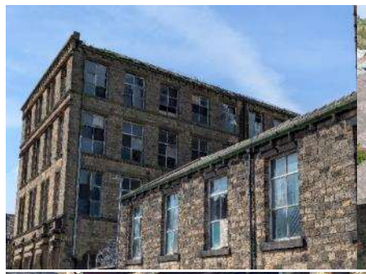
APPENDIX A: BOTANICAL SPECIES LIST

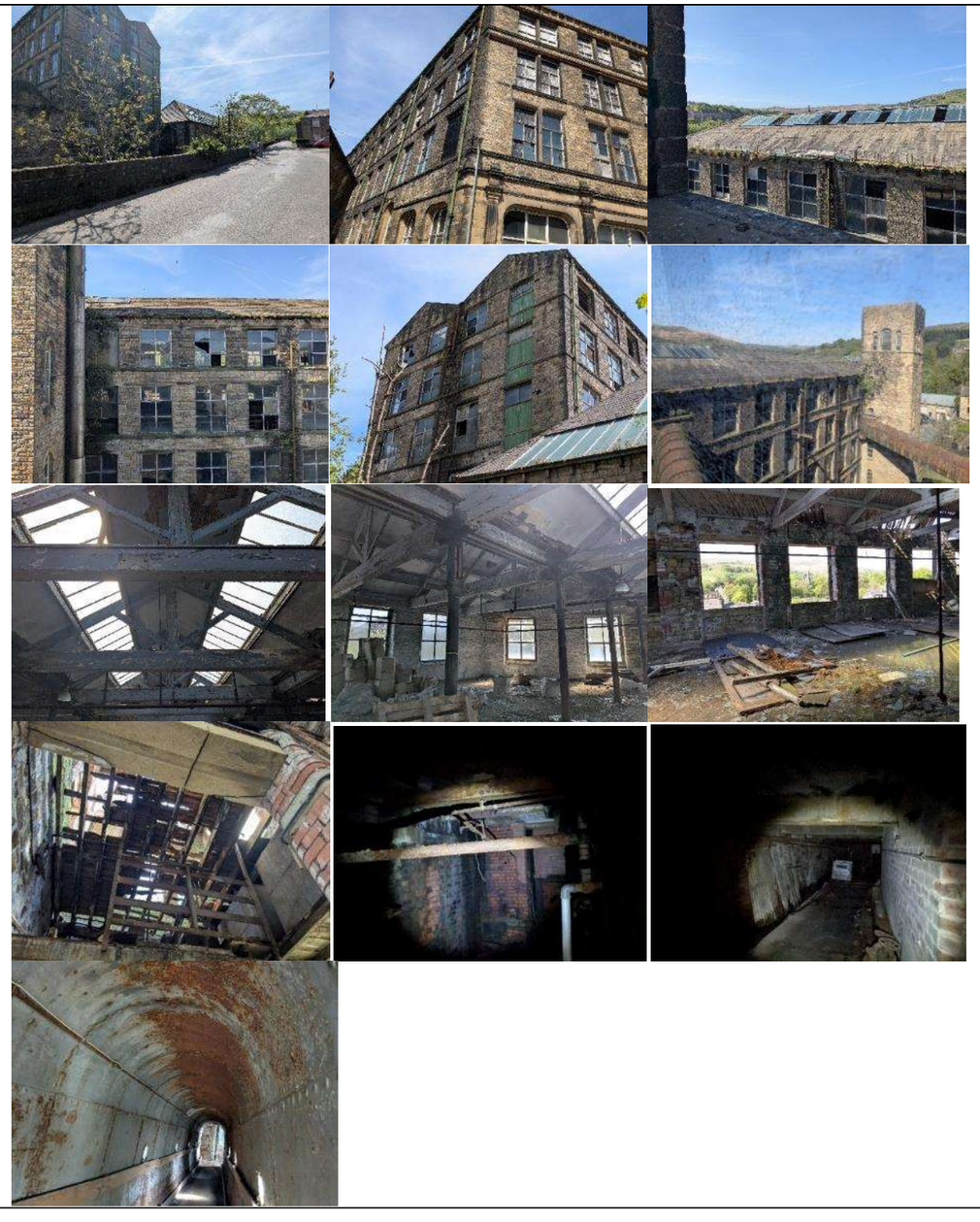
The habitat types were mapped within the site and a representative species list for each habitat type recorded. Species lists are not exhaustive of all flora present in each habitat type.

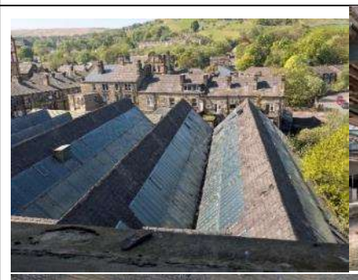
Common Name	Scientific Name	DAFOR
Amenity Grassland		
Cherry	*Prunus* species	R
Common nettle	*Urtica dioica*	LF
Common ragwort	*Senecio jacobaea*	R
Common sorrel	*Rumex acetosa*	O
Creeping bent	*Agrostis stolonifera*	D
Creeping buttercup	*Ranunculus repens*	A
Dandelion	*Taraxacum officinale* agg.	F
Fern	*Pteridium* species	R
Goat willow	*Salix caprea*	R
Horsetail	*Equisetum* species	R
Meadow buttercup	*Ranunculus acris*	F
Moss	*Bryophyte* species	LD
Ribwort plantain	*Plantago lanceolata*	A
Sycamore	*Acer pseudoplatanus*	R
White clover	*Trifolium repens*	F
Willowherb	*Epilobium* species	R
Tall Ruderal Vegetation		
Bramble	*Rubus fruticosus* agg.	O
Cherry	*Prunus* species	O
Cuckoo-flower	*Cardamine pratensis*	R
Rosebay willowherb	*Chamerion angustifolium*	D
Sycamore	*Acer pseudoplatanus*	O
Ephemeral Short Perennial Vegetation		
Moss	*Bryophyte* species	D
Saxifrage species	*Saxifraga* species	R
Scrub		
Bramble	*Rubus fruticosus* agg.	LD
Cherry	*Prunus* species	R
Rowan	*Sorbus aucuparia*	R
Scattered Trees / Scrub		
Butterfly-bush	*Buddleja davidii*	O
Silver birch	*Betula pendula*	O

DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

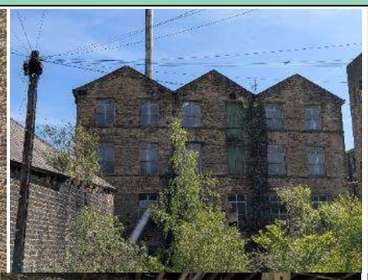
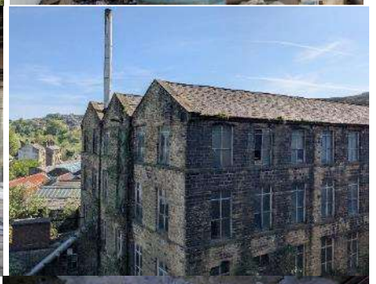
APPENDIX B: INTERNAL / EXTERNAL BAT BUILDING ASSESSMENTS

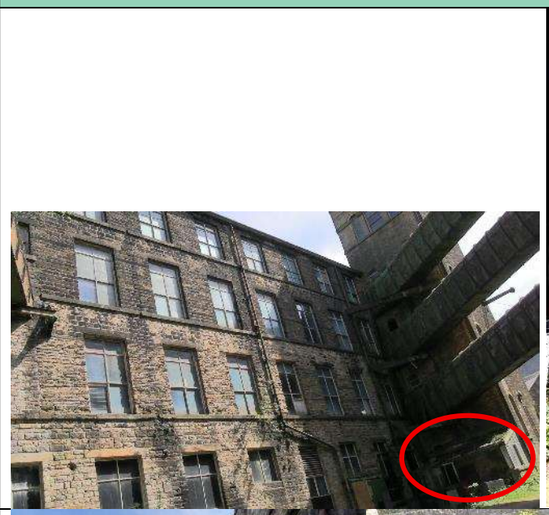
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BA	**Description:** Stone building two-story building previously used as offices. Coping stones present on the gables along with a chimney on each gable. **Potential Access Points**: broken window glass and missing , lifted roof tiles, gaps under eaves. **Potential Roost Features**: within a roof void if present and beneath tiles / ridge and underlining **Evidence:** No evidence of bat occupation.	Brougham Road, office – no internal access. A roof void is likely present.	Moderate As no internal access was possible at least three nocturnal surveys would be required as per the Bat Survey Guidelines with three surveyors one of which would be located within building BF.1 vantage point.	 
BB	**Description**: Two storey stone mill building with a pitched slate tiled roof. **Potential Access Points**: Broken window glass, gaps under tiles that are lifted/ missing and holes in the walls. **Potential Roost Features:** beneath tiles / ridge, within the stone. **Evidence:** No evidence of bat occupation.	Internally no roof void though wooden underlining present. Some aspects of the pitches comprise of glass.	Low Hibernation potential in stonework of the building.	     
BC	**Description**: Small brick outbuilding with no roof on the south east corner of BD.2. **Potential Access Points**: Open **Potential Roost Features**: None **Evidence:** No evidence of bat occupation.	N/A	Negligible	

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BD.1	**Description:** Stone mill building with two pitched slate tiled roofs. Tall stone tower which houses a stairwell and elevator shaft no longer used / accessible and is in a state of disrepair, open at the roof. **Potential Access Points**: broken window glass, missing windows, gaps in the roofing tiles, missing glass panels in the roof pitches. **Potential Roost Features:** beneath the tiles and the underlining, gaps around wooden window frames, gaps in stone window lintels and between decorative cornice, under lead flashing of the ridge. **Evidence:** No evidence of bat occupation.	Internally there are numerous floors Connected to building BF.1 via metal tunnels. These structures did not have an internal or external features considered suitable for roosting bats. Basement areas dark, dam and suitable for hibernating bats within the stone work. Numerous pigeons present internally.	Low Hibernation potential	

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BD.2	**Description:** Stone mill building with a pitched glass panel roof. Coping stones and parapet wall at the gables present. Small lead chimney feature along ridge. Lead flashing ridge. **Potential Access Points**: broken window glass and missing glass roofing panels. Gaps in lead flashing. **Potential Roost Features**: gaps in stonework **Evidence:** No evidence of bat occupation.	Internal no roof void or underlining as the roof comprises glass panels. Numerous pigeons present internally.	Low	 View from Warehouse Hill Road, North aspect with BD.1 in the background
BE.1	**Description:** Stone mill building with three pitched slate tiled roofs with some glass panelling on some aspects. The roof is hipped at the eastern end. **Potential Access Points**: missing roof tiles, broken / missing glass panels, damaged roof section gaps under the ridge, gaps at the gables under the tiles and under the eaves. **Potential Roost Features**: within the roof void, between the tiles and the underlining, within gaps in the stonework under ridge tiles. **Evidence:** No evidence of bat occupation.	Internally there are three void sections which are connected were extremely hot creating suitable maternity roosting habitats. These were c.2.5m in height. The voids were light due to the glass panelling however, wooden underlining is present. Internally the ground floor is openly connected to BE.2 though was assessed separately given the difference in construction and roof voids in BE.1. **Evidence:** A single butterfly wing was identified within the most northern void which although on its own is considered unlikely could be feeding remains from a bat such as a brown long-eared bat. Numerous pigeons present internally.	High (maternity potential) Hibernation potential in stonework.	     

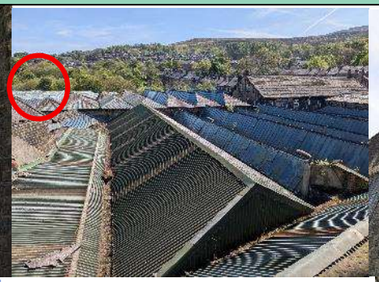
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BE.2	**Description:** Stone mill building with a series of pitched roofs slate tiled and glass panels. Hipped roof at the eastern end. Parapet walls and coping stones also present on the southern aspect. **Potential Access Points:** missing roof tiles, gaps under the ridge, gaps under eaves, broken glass panels, under lead flashing on the roof. **Potential Roost Features:** beneath the tiles and the underlining, in ridge tiles and stonework. **Evidence**: No evidence of bat occupation.	Internally no roof voids are present though the tiles are underlined with wood creating potential roofing feature between the tiles and the underlining. Numerous pigeons present internally.	Low Hibernation potential in stonework.	     

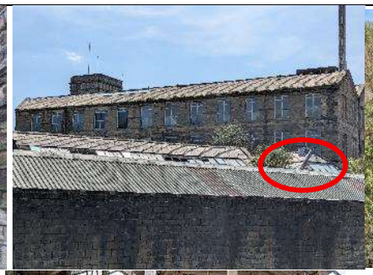
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BF.1	**Description:** Stone mill building with four floors and three slate tiled pitched roofs. **Coping stones along the gables.** **Potential Access Points**: broken / missing window glass, missing tiles, gaps under the eaves, gaps under coping stones, window lintels, holes in the wall, open basement. **Potential Roost Features**: between the tiles and underlining, under ridge tiles, coping stones, gaps in the stonework, lintels, window frames. **Evidence:** No evidence of bat occupation.	Internally there are four floors and basement areas. No roof voids present though wooden underlining is present throughout along with glass panelling. Basements present comprising of brick ceiling, gaps present in the brick work suitable cavities for hibernating bats. Numerous pigeons present internally nesting and dead noted throughout. Jackdaw also noted internally.	Low Hibernation potential in stonework/ basements.	        
BF.2	**Description:** Stone tower attached to BF.1 with a flat roof. **Potential Access Points**: broken / missing window glass, missing stones in the walls. **Potential Roost Features**: gaps in stonework, gaps in lintels/ window frames. **Evidence:** No evidence of bat occupation.	Stone tower not fully accessible to the top as it is unsafe. Windows in the tower with no glass. Suitable for nesting peregrine though no evidence noted. Numerous pigeons resent nesting.	Low Hibernation potential in stonework.	   

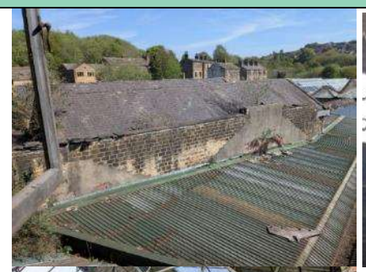
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BF.3	**Description: Small** lean to on the northern aspect of BF.2 with corrugated roofing panels. **Potential Access Points:** open on northern aspect and missing glass panel on the western aspect. **Potential Roost Features:** None. **Evidence:** No evidence of bat occupation.	Unlined and no roof void.	None	 
BG	**Description**: Brick / stone single storey outbuilding with a flat concrete roof. Parapet wall present. The River Colne is culverted beneath this building. **Potential Access Points**: section of roof missing on the northwest corner (can only be viewed from a vantage point within BD.1), broken window glass. **Potential Roost Features:** gaps ins stone work, under coping stones, potentially in the building. **Evidence:** No evidence of bat occupation.	No internal access though given it comprises a flat roof there is not expected to be any roof void present or underlining. However, as the roof is concrete the building could be suitable for hibernation.	Low Hibernation potential.	    

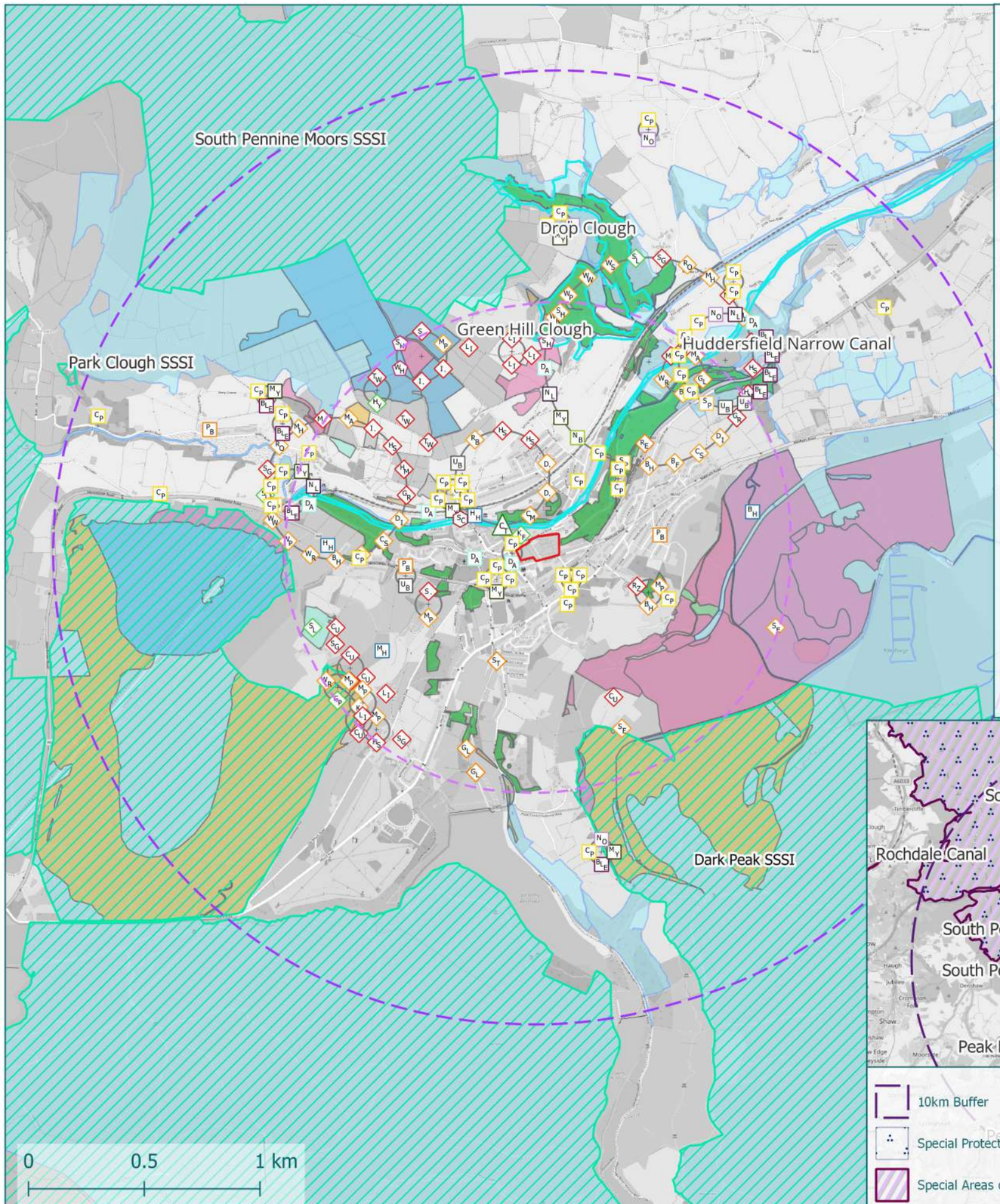
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BH	**Description:** Stone outbuilding with a pitched roof comprising corrugated metal sheeting. **Potential Access Points**: Gaps in wooden door, wooden vents, eaves and under the metal barge board. **Potential Roost Features**: between the roofing material and the underlining, within the stonework and under the barge board. **Evidence:** No evidence of bat occupation.	Internally no roof void is present. Underlining with a wooden material with a wooden frame. Gaps in the walls internally. Two Perspex roofing sections. Nest noted at gable end internally. Hibernation potential in stonework.	Low Hibernation potential in stone walls.	
BI	**Description:** Stone outbuilding single storey with a pitched corrugated metal roof. **Potential Access Points**: Gaps in doors via BH, under the eaves, gaps in stone, broken corrugated roofing panels. **Potential Roost Features**: potentially under corrugated roofing panels and underlining, in stone work. **Evidence:** No evidence of bat occupation.	No access internally given that the building comprises a pitched corrugated metal panel roof similar to BH it is likely there will be underlining and no roof void.	Low Hibernation potential in stonework.	
BJ.1	**Description:** Lean to extension on the south eastern aspect of bJ.2 with a slate tiles roof and ridge. Lead flashing present. **Potential Access Points**: open on southern aspect **Potential Roost Features:** between the tiles and underlining. **Evidence:** No evidence of bat occupation.	Metal frame and bitumen felt lining which is ripped in some areas.	Low	

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BJ.2	**Description:** Stone mill building, two storey, with three pitched roof sections with gables on the eastern aspect and hipped roof structure on the west. Slated tiled and glass panels. Further north is also three pitched roofs with metal corrugated panels and ridge. **Potential Access Points**: broken window glass and roofing panels, gaps under eaves, in bricked / breeze blocked up windows. **Potential Roost Features**: between the tiles and underlining (if present), under the eaves, and gaps in stonework. **Evidence:** No evidence of bat occupation.	No access internally, likely to be similar to the other structures with wooden underling and no roof void.	Low Hibernation potential in stonework.	   
BK	**Description**: Two storey stone building with a slate hipped roof. Three chimneys along the ridge. Glass panels also noted on the northern and southern aspect of the roof. **Potential Access Points**: gaps under the eaves, missing ridge tiles and tiles, lifted tiles. **Potential Roost Features**: under roof tiles and any underlying, the ridge and on the wall plate under the eaves. **Evidence:** No evidence of bat occupation.	No access internally, given the presence of glass panels in the roof its considered likely that no roof void is present though underlining could be possible given that similar structures across the site have wooden underlining.	Low	 

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BL	**Description:** A two-storey stone building with four pitched roofs comprising of glass panels and slate tiles. Coping stones present. **Potential Access Points**: Missing ridge (lead flashing), gaps in wooden doors/missing window glass with gaps above bricked up windows. **Potential Roost Features**: Gaps in brick work around drainpipes. **Evidence:** No evidence of bat occupation.	Internally openly connected to BM. No access to second storey. Given that the building comprises a pitched roof similar to BE.2it is likely there will be underlining of the tiles and no roof void.	Low	     
BM	**Description:** Single storey stone building with two metal corrugated pitched roofs. **Potential Access Points**: Gaps under metal ridge, barge board at the north western end. **Potential Roost Features:** Within a void, roofing panels and underlining if present. **Evidence:** No evidence of bat occupation.	Internally very dark and cold, lighter towards the eastern end where it connects into BL. Roof not visible appeared to have a concrete ceiling. Therefore, a void area that is inaccessible is likely be present.	Low	     

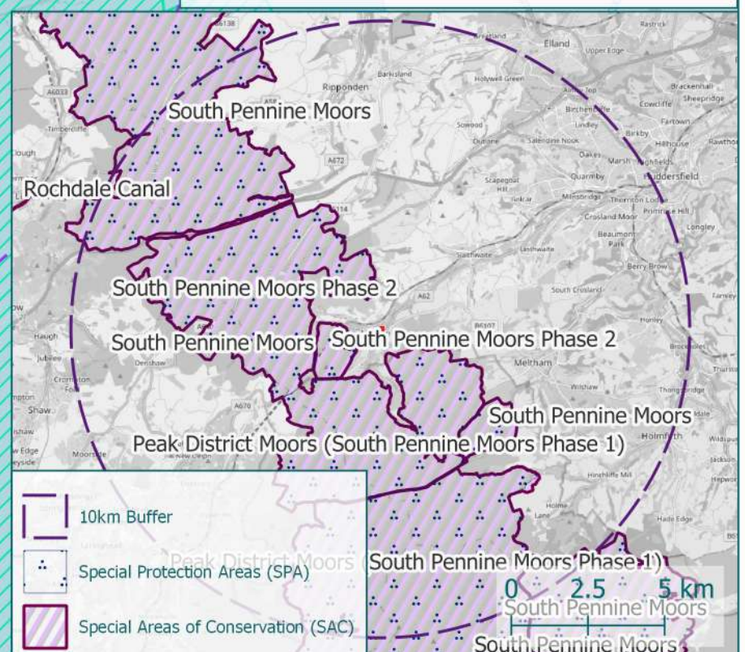
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BN	**Description**: Concrete building connected between BI and BH with a metal corrugated pitched roof. Metal barge board and ridge. **Potential Access Points:** under barge board and ridge and eaves of corrugated panels. **Potential Roost Features:** between the corrugated roof panelling and any potential underlining/ void. **Evidence:** Access limited to inspect.	No access internally. Given that the building comprises a pitched corrugated metal panel roof similar to BH it is likely there will be underlining and no roof void.	Low	 
BO	**Description:** Stone building with a hipped slate tiled roof, with some glass panelling. Two small chimneys present. **Potential Access Points**: gaps under tiles, open access on the west. **Potential Roost Features**: between the tiles and the wooden underlining. **Evidence:** No evidence of bat occupation.	No roof void, wooden underlining present. Connected internally to BS/ BQ.	Low	    

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost & Recommendations	Building Photographs
BP	**Description:** Stone building comprising various interconnecting sections. One with a pitched slate tiled roof and glass panelling and another with a pitched corrugated metal roof with glass panels. Also, a sloping corrugated metal panel roof connecting BP to BQ. **Potential Access Points:** open access through BQ, missing glass panels, gaps under the ridge, potentially under metal panel roofing. **Potential Roost Features**: between the roofing tiles and underlining, within the gaps in the stone work, under the ridge. **Evidence:** No evidence of bat occupation.	Internally this comprises a building section that is connected to BM, this area has a pitched corrugated metal roof with glass panels. Further south the building section comprises a pitched slate tiled roof with glass panels. Internally this is connected to BQ. Hibernation potential internally within the stone walls of the pitched section north on BP.	Low Hibernation potential internally in the stone walls.	   
BR, BS, BQ, BT	**Description:** Complex series of buildings all interconnecting externally and internally. Various pitched roofs comprising of metal corrugated panels and slate tiles, with some glass panelled pitches. **Potential Access Points:** under ridges, missing tiles, glass panels, via large gaps of missing metal panel roofing, vents in the roofs. **Potential Roost Features**: between roofing materials and underlining, within gaps in the bricks/ stone work, in the ridges. **Evidence:** No evidence of bat occupation.	Internally no roof voids present. Underlining in the form of wooden panels / planks throughout.	Low	     



Protected and Notable Species

- Common pipistrelle bat
- Soprano pipistrelle bat
- Pipistrelle bat species
- Noctule bat
- Leisler's bat
- Daubenton's bat
- Natterer's bat
- Myotis bat species
- Brown long-eared bat
- Unidentified bat species
- West European hedgehog
- Brown hare
- Mountain hare
- Eurasian curlew
- Greenfinch
- House martin
- House sparrow
- Starling
- Lapwing
- Linnet
- Mistle thrush
- Ring ouzel
- Skylark
- Twite
- Common gull
- Black-headed gull
- Common bullfinch
- Common sandpiper
- Dunnock
- Grey wagtail
- Kestrel
- Mallard
- Meadow pipit
- Redwing
- Reed bunting
- Short-eared owl
- Whooper swan
- Willow warbler
- Dipper
- Song thrush
- Woodpigeon
- Moorhen
- Sparrowhawk
- Rook
- Wren
- Golden plover
- Hobby
- Kingfisher
- Swallow
- Common toad
- Small heath butterfly
- White-letter hairstreak butterfly
- Signal Crayfish



FUTURES ECOLOGY

Carrwood Park, Swillington Common Farm, Selby Road, Leeds, LS15 4LG
Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

- Site Boundary

Site Buffers

- 1km Buffer
- 2km Buffer

Designated sites

- Sites of Special Scientific Interest (SSSI)

Local Wildlife Sites

- Local Wildlife Sites (LWS)

Habitat of Principal Importance (HPI)

- Blanket bog
- Deciduous woodland
- Good quality semi improved grassland
- Grass moorland
- Lowland heathland
- Upland flushes fens and swamps
- Upland heathland
- No main habitat but additional habitats present

Habitat Networks

- West Yorkshire WHN

Client:	Crowther Bruce & Co Ltd	Plan Reference:	FE551_01	Author:	CC
Project:	New Mills, Marsden	Project Reference:	FE551	Date:	14/7/2025
Title:	Figure 1 - Site Location & Desk Study Results Plan	Report Reference:	FE551/PEA01	Scale:	1:20,000

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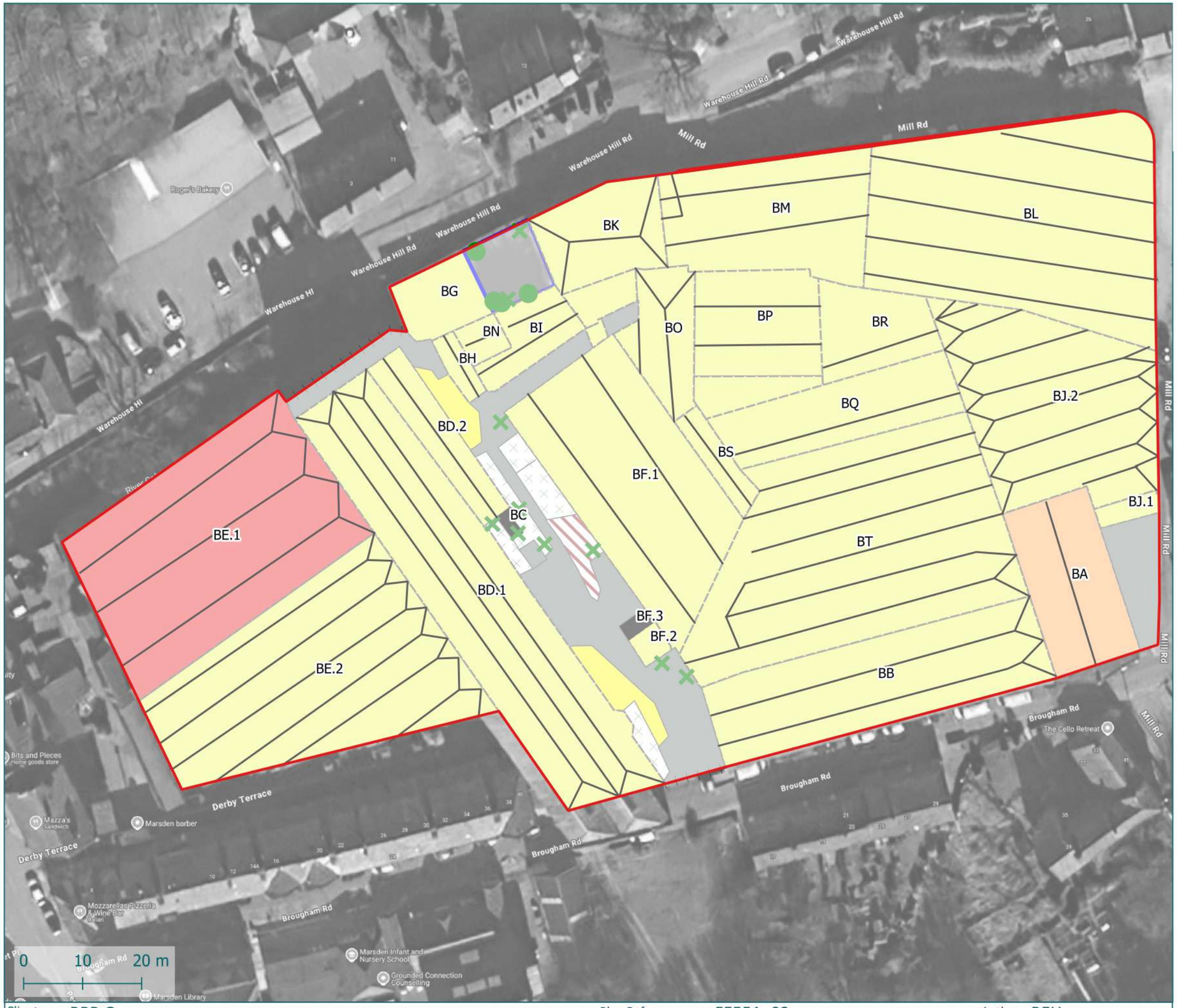

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Key

- Site Boundary

Habitats

- Not accessed land
- Buildings - no/negligible bat roost potential
- Buildings - high bat roost potential
- Buildings - moderate bat roost potential
- Buildings - low bat roost potential
- Hardstanding
- Amenity grassland
- Ephemeral/short perennial
- SI — Poor semi-improved grassland
- Other tall herb and fern - ruderal
- Scrub - scattered (bramble scrub)
- Broadleaved tree
- Scrub - scattered
- Fence
- Roof lines

Client:	RPP Group	Plan Reference:	FE551_02	Author:	REH
Project:	New Mills, Marsden	Project Reference:	FE551	Date:	4/7/2025
Title:	Figure 2 - Phase 1 Habitat Plan & Bat Building Assesment	Report Reference:	PEAR01/BAT01	Scale:	1:650

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Telephone: 01623 749709

Site Boundary

Site Buffers

250m Buffer

500m Buffer

Waterbodies

Waterbody

Waterbody Line

Watercourse

Ditch

Client:	Crowther Bruce & Co Ltd	Plan Reference:	FE551_03	Author:	CC
Project:	New Mills, Marsden	Project Reference:	FE551	Date:	16/6/2025
Title:	Figure 3 - Waterbody Plan	Report Reference:	FE551/PEA01	Scale:	1:5,000

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Key

- Site Boundary
- Surveyor and or NVA Location
  Please note some of these are located within buildings

Habitats

- Not accessed land
- Buildings - no/negligible bat roost potential
- Buildings - high bat roost potential
- Buildings - moderate bat roost potential
- Buildings - low bat roost potential
- Hardstanding
- Amenity grassland
- Ephemeral/short perennial
- SI Poor semi-improved grassland
- Other tall herb and fern - ruderal
- Scrub - scattered (bramble scrub)
- Broadleaved tree
- Scrub - scattered
- Fence

0 10 20 m

Client:	Crowther Bruce & Co Ltd	Plan Reference:	FE551_04	Author:	REH
Project:	New Mills, Marsden	Project Reference:	FE551	Date:	3/7/2025
Title:	Figure 4 - Bat Bocturnal Survey Postision	Report Reference:	PEAR01	Scale:	1:750

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