Preliminary Ecological Appraisal Report

Lees Hall Road, Dewsbury
Reference: 82-036-R1-1
Date: October 24

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EXECUTIVE SUMMARY

Site Address	Land adjacent to Lees Hall Road, Dewsbury, WF12 9EQ
Coordinates	E 423453, N 419823
Site Area	Approximately 0.6 ha
Current Site Use and Adjacent Site Use	The site comprised a disused tarmac factory with concrete structure storage units, associated hardstanding and a car park. Residential housing is located to the south and south west of the site, with extensions of the industrial estate located further west and east. A large area of green space is located north of the site.
Designated Sites	Two Local Nature Reserves (LNRs) are located within 1 km of the site. Sparrow Wood LNR is located approximately 860 m north east and Lower Spen Wildlife Area LNR, and Local Wildlife Site (LWS) is located approximately 1 km north west. No statutory designated sites were identified within 1 km of the site boundary. The site is located within the impact risk zone of Denby Grange Colliery Ponds Site of Special Scientific Interest (SSSI), which is located approximately 5.3 km south east of the site. The site is also designated as a Special Area of Conservation (SAC). Due to the distance between the proposed site and SAC, SSSI, LNRs and LWS and the nature of the proposed works, no detrimental impacts on the designated sites are anticipated as a result of the development. Furthermore, as per the criteria listed on MAGIC (accessed September 2024), the proposed site will not require further consultation with Natural England to proceed in relation to the SSSI. Also, due to the distance between the site and the SAC and the lack of functionally linked land on site that could support the designated species a Habitat Regulations Assessment (HRA) will not be needed. Due to the development consisting of industrial development, no additional visitor impacts on SAC, SSSI, LNRs, and LWS are anticipated as a result of the development.
Survey Results	The site was found to comprise developed land sealed surface, five structures, introduced shrub, modified grassland, ruderal/ephemeral, other neutral grassland, individual trees, one line of trees, and one native hedgerow. The site was found to have the following potential ecological constraints: - Opportunities for common amphibians within the understory of the hedgerow, line of trees, individual trees, ruderal/ephemeral, and other neutral grassland (once established). - Limited commuting and foraging potential for bats, restricted to the line of trees, individual trees, and the hedgerow on site. - Potential presence of badgers within the local area and suitable foraging and sett-building opportunities on site. - Potential presence of hedgehogs within the understorey of the hedgerow, individual trees, line of trees, and the ruderal/ephemeral, introduced shrub, other neutral grassland (when grown), and modified grassland. - Opportunities for nesting birds within the structures, individual trees, hedgerow, and line of trees.

	• Invasive plant species – Rhododendron was identified on-site. Furthermore, historically Japanese knotweed has been present on-site.
Conclusions	No further surveys are required to inform a planning application. The following mitigation is recommended: • Common amphibians are to be removed by hand from the working area during the clearance phase. • The lighting design should ensure sensitive habitats including the on-site hedgerow, and individual trees, and the adjacent valuable habitats are maintained as dark areas during and post-construction. • Precautionary Working Methods for badgers. • Vegetation should be retained where possible. Where vegetation requires removal, it should be checked for the presence of hedgehog prior to removal. If any vegetation is too dense to be fully inspected, it should be strimmed to 50 cm and checked for hedgehog before being cleared to ground level. If trees are removed, their bases should be checked, prior to removal, for sheltering hedgehogs. It is recommended that any clearance takes place outside of December-March (inclusive) to avoid impacting hibernating hedgehogs. • Vegetation should be retained where possible. If any vegetation requires removal or any structures require work and/or demolition, it should be removed outside of the breeding bird season (March to September inclusive). If this is not possible, a nesting bird check should be undertaken by a suitably qualified ecologist up to 48 hrs before works commence. If a nest, or nest in construction, is located, then a stand-off distance should be maintained until the young have fledged. • The invasive plant species rhododendron should either be left in situ if it will not be disturbed causing it to spread or should be removed following the most current guidance set out by the Environmental Agency by a qualified contractor. • An updated walkover should be undertaken during the summer period to confirm the Japanese knotweed has been completely eradicated. A 10% gain in biodiversity will be required on-site. If this cannot be achieved on-site, a conservation offset payment, or off-site compensation will be required.

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1. INTRODUCTION

1.1. BACKGROUND

E3P were commissioned by R Watson Design Services Ltd to undertake a Preliminary Ecological Appraisal at the land adjacent to Lees Hall Road, Dewsbury, hereafter referred to as "the site".

This report has been prepared by Consultant Ecologist Carlin Jones, BSc (Hons) who holds a qualifying CIEEM membership and has over three years of professional experience as an ecologist. Carlin holds Class 1 Bat and Class 1 Great Crested Newt Natural England Licences and holds a Level 3 Field Identification Skills Certificate (FISC). Carlin has experience undertaking Preliminary Ecological Appraisals, Preliminary Roost Assessments, protected species surveys and ecological mitigation for a wide variety of projects across the UK.

1.2. PROPOSED DEVELOPMENT

Development proposals include the retention of the existing structures and the construction of an industrial unit in the northern region of the site with foul drainage and a bin compound.

1.3. SITE LOCATION

The site is located in Dewsbury part of West Yorkshire. Lees Hall Road defines the site's southern boundary whilst an industrial warehouse defines the east boundary with Forge Lane running parallel. Residential developments are located south west and south east of the site, with Ravenshead School, located approximately 110 m south west of the site and agricultural land extending further south west. The Calder and Hebble Navigation is located approximately 180 m north east at its closest point, with a railway line located approximately 180 m north. The A644 is located approximately 730 north west at its closest point. Please refer to Figure 1 for the approximate site location.

Figure 1 Approximate Site Location

1.4. OBJECTIVES

The objectives of the Preliminary Ecological Appraisal are as follows:

- Identify the major habitats present.
- Ascertain the presence or potential presence of any legally protected species and habitats.
- Recommend any further surveys or mitigation that may be required.

The Preliminary Ecological Appraisal comprises a desk study and site walkover. This survey has been completed as a baseline assessment of the site, and as such please see the end of the report for further surveys and mitigation proposed.

2. METHODOLOGY

2.1. DESKTOP STUDY

The following sources of information and ecological records were consulted:

- MAGIC – A web-based interactive mapping system, on which geographic information regarding key environmental schemes and designations are collated, including details of statutory conservation sites, accessed September 2024.
- Aerial mapping and ordnance survey maps.
- Local data records provided by West Yorkshire Ecology Service (WYES) on 09th September 2024.

A 1 km search area was utilised for the data search, with this being deemed an appropriate distance for the zone of influence of the site due to the developed nature of the site and surrounding residential housing and industrial units.

The data search included the request for details of protected and notable species of flora and fauna within 1 km of the central grid reference of the site. In addition, a request was made for any non-statutory designated sites within 1 km of the site boundary.

Please note that a lack of up-to-date records does not confirm the absence of a species from the area. Lack of records may simply be a result of a lack of protected species surveys being undertaken within the local area.

2.2. VEGETATION AND HABITATS

A Preliminary Ecological Appraisal of the proposed development site was undertaken by Carlin Jones on 24th September. Carlin holds a Level 3 Field Identification Skills Certificate (FISC). The weather was dry and overcast.

The walkover survey was undertaken to the standard methodology as detailed by the UK Habitat Classification Version 2.0 (UKHab, 2023). The assessment follows the methodology as per "Guidelines for Preliminary Ecological Appraisal" (CIEEM, 2017).

A vegetation and habitat plan has been produced for the proposed development site (please refer to Appendix I). The mapping is based on the UK Habitat Classification Version 2.0 (UKHab, 2023).

Searches were made for uncommon, rare, and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act 1981 (as amended) and species which are indicators of important and uncommon plant communities. All plant nomenclature follows Stace (2019).

Searches were carried out for the presence of invasive species, including those listed on the revised (April 2010) Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) including Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*).

2.3. FAUNA

A thorough search of the site for signs of protected species of fauna was undertaken during the site walkover. These searches considered the following:

- Suitability of any ponds to support notable amphibians, and the suitability of the site's terrestrial habitats to support amphibians.
- Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- Signs of badgers (*Meles meles*), by way of setts, mammal paths, foraging signs or latrines to indicate usage of the site by the species.
- Search of any watercourses for signs or suitability for water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts and foraging signs.
- Suitability of the site to support roosting, foraging and commuting bats.
- Suitability of the site to support notable bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.

2.4. SURVEY LIMITATIONS

A Preliminary Ecological Appraisal does not constitute a full botanical survey. Instead, key species are identified to give a representative description of each habitat type.

An area of other neutral grassland had been recently sown along the southern site boundary, as such, species identification was difficult.

Internal access to Structure 1, Structure 2, and Structure 3 was not possible during the survey. However, the external composition of the buildings comprised metal sheeting as such, the internal structure is likely to be the same. As such, lack of internal access was not considered to be a major constraint.

A survey of the areas within 30 m of the site boundary to search for field signs of badger was not possible, due to the presence of private land associated with the council to the north, industrial units to the east, and residential housing to the north west to which access could not be gained. As such, some features, including field signs of badgers may have been missed.

These constraints have been taken into consideration during the assessment.

3. SURVEY RESULTS

3.1. SITE CONTEXT

The site is primarily hardstanding which is anticipated to provide minimal ecological value. The surrounding area consists of residential developments as well as industrial estates, expected to provide similar value as the site. The treelines that border the site to the immediate west and east may provide foraging and commuting value for local wildlife including birds and terrestrial mammals, such as bats, badgers, and hedgehogs (*Erinaceus europaeus*). Furthermore, the treelines bordering the site may provide roosting and nesting opportunities for local species of bats and birds.

Immediately north of the site, is a large area of open green space featuring grassland, treelines, and scrub. This mosaic of habitats could provide shelter, foraging, and commuting opportunities for small numbers of common amphibians and reptiles as well as badgers, hedgehogs, nesting birds, ground-nesting birds, brown hare *(Lepus europaeus),* and bats.

Multiple areas of Biodiversity Action Plan (BAP) priority habitat deciduous woodland is located within 1 km of the site, the closest of these is located approximately 50 m north west of the site at its closest point. This runs parallel to the railway line and is anticipated to provide a foraging and resting habitat for a variety of terrestrial species, as well as nesting and roosting features for birds and bats within the local area. Another area of deciduous woodland located approximately 160 m east is expected to provide similar value. Approximately 660 m south west of the site lies Priest Royd Wood, which is part of a larger interconnected woodland containing ancient woodland located further south west. As well as the habitat features within the woodland, the woodland corridors connecting the parcels provide valuable commuting features to both terrestrial species and birds and bats.

The above BAP priority habitat deciduous woodland located approximately 50 m north west at its closest point also provides connectivity from adjacent to the site to the woodland associated with the banks of the Calder and Hebble Navigation which are located approximately 180 m north west of the site. The watercourse is anticipated to provide foraging and commuting opportunities for a variety of local fauna, including those that specialise feeding along aquatic habitats such as otter and Daubenton's bat (*Myotis daubentonii*).

Areas of agricultural land with associated hedgerows and treelines are present further south, beyond the residential housing and industrial units. Due to the intensive management of the land, it is likely to offer limited resources to the local wildlife. However, it may support ground-nesting birds and brown hare. The treelines and hedgerows interspersed between the fields may act as a commuting corridor for fauna, as well as provide shelter for species such as badgers and hedgehogs. However, the connection from these fields to the site is limited due to the anthropogenic features fragmenting the habitats, such as country roads and residential developments.

Two areas of BAP priority habitat open mosaic on previously developed land are present approximately 95 m west and 210 m north of the site. These habitats comprise brownfield land that, due to previous disturbance and modification in relation to historic industrial works or landfills, supports a notable diversity of habitats within proximity. As such, they are anticipated to provide valuable habitat for a variety of fauna, including rich assemblages of invertebrates. However, these areas of open mosaic do not have any direct connectivity to the site due to active industrial units present between the site and the areas.

No waterbodies were located on site or within 250 m of the site boundary.

3.2. DESIGNATED SITES

Two Local Nature Reserves (LNRs) are located within 1 km of the site. No further statutory designated are located within 1 km of the site. The LNRs within 1 km of the site comprised:

- Sparrow Wood LNR located approximately 860 m north east of the site. Additionally, the LNR is overlapped by the non-statutory Sparrow Wood Local Wildlife Site (LWS). The area comprised species-rich wood pasture with areas of ancient semi-natural woodland.

- Lower Spen Wildlife Area LNR located approximately 1 km north west of the site. The LNR is located on the former Lower Spen Valley Landfill site, and features areas of species-rich grassland, woodland and the River Spen. Furthermore, the Lower Spen Wildlife Area is also designated as a Local Wildlife Site (LWS).

No statutory designated sites were identified within 1 km of the site boundary. The site is located within the impact risk zone of Denby Grange Colliery Ponds Site of Special Scientific Interest (SSSI), which is located approximately 5.3 km south east of the site. The site's designation is due to its consistently high counts of great crested newt *(Triturus cristatus)* found in the waterbodies, which are surrounded by ancient woodland slopes. Furthermore, the site is designated as a Special Area of Conservation (SAC) due to the large population of great crested newts it supports.

Due to the distance between the proposed site and SAC, SSSI, LNRs and LWS and the nature of the proposed works, no detrimental impacts on the designated sites are anticipated as a result of the development. Furthermore, as per the criteria listed on MAGIC (accessed September 2024), the proposed site will not require further consultation with Natural England to proceed in relation to the SSSI. Also, due to the distance between the site and the SAC and the lack of functionally linked land on site that could support the designated species a Habitat Regulations Assessment (HRA) will not be needed.

Furthermore, due to the development consisting of industrial development, no additional visitor impacts on SAC, SSSI, LNRs, and LWS are anticipated as a result of the development.

3.3. HABITATS

The main habitats encountered during the survey are described in the following subsections. Please refer to Appendix I for the UKHab Habitat Plan.

3.3.1. DEVELOPED LAND, SEALED SURFACE

The site was found to mainly comprise developed land, sealed surface associated with hardstanding access roads, car parking, and stockpiles. The developed land was mainly in good condition and was not significantly colonised.

Figure 2 Showing Developed Land, Sealed Surface

3.3.2. DEVELOPED LAND, SEALED SURFACE (STRUCTURES)

Five structures (S1-S5) were present within the site which were associated with the current industrial land usage. Please see Section 3.4.2 and Appendix I for detailed descriptions and locations of the on-site structures.

Figure 3 Showing Developed Land, Sealed Surface (Structures)

3.3.3. MODIFIED GRASSLAND

Two small areas of modified grassland were present within the site. Species comprised cock's-foot (*Dactylis glomerata*), dandelion (*Taraxacum officinale agg.*), common ragwort (*Jacobaea vulgaris*), ribwort plantain (*Plantago lanceolata*), colt's-foot (*Tussilago farfara*), common nettle (*Urtica dioica*), with introduced species including rose species (*Rosa sp.*).

Figure 4 Showing Modified Grassland

3.3.4. INTRODUCED SHRUB

One area of introduced shrub was present within the south-east of the site. Species solely comprised of the invasive plant species rhododendron (*Rhododendron ponticum*).

Figure 5 Showing Introduced Shrub

3.3.5. RUDERAL/EPHEMERAL

A large area of ruderal/ephemeral was present along the northern and north-eastern site boundaries. Species comprised colt's-foot, ribwort plantain, creeping thistle (*Cirsium arvense*), common ragwort, bramble (*Rubus fruticosus agg.*), false oat-grass (*Arrhenatherum elatius*), poppy species (*Papaver sp.*), field bindweed (*Convolvulus arvensis*), bristly oxtongue (*Helminthotheca echioides*), sycamore saplings (*Acer pseudoplatanus*), hawthorn saplings (*Crataegus monogyna*), and willow species saplings (*Salix sp.*).

Figure 6 Showing Ruderal/Ephemeral

3.3.6. OTHER NEUTRAL GRASSLAND

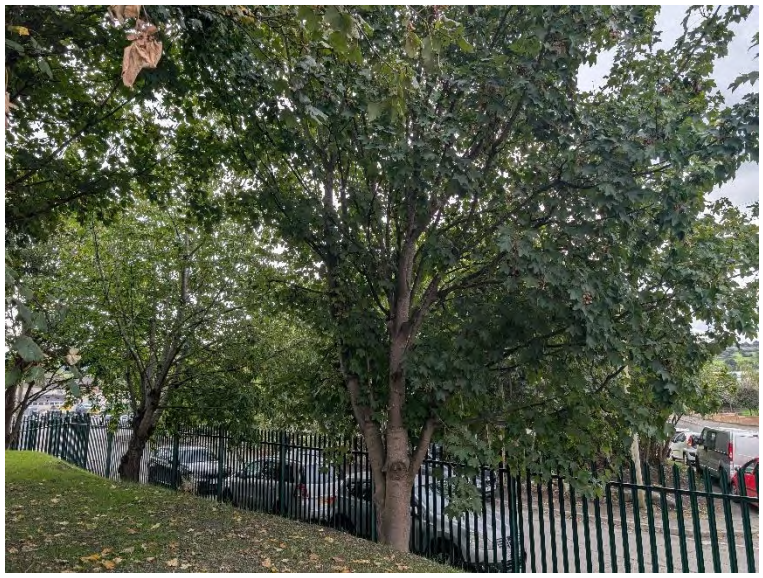
An area of other neutral grassland had been recently sown along the southern site boundary, as such species identification was difficult. The seed mixes used were Cotswold Wild Flora Mixture with Grasses and Meadow Over-Seeding Just Wild Flowers. Species comprised common bent (*Agrostis capillaris*), small cat's-tail (*Phleum bertolonii*), crested dog's-tail (*Cynosurus cristatus*), sheep's-fescue (*Festuca ovina*), smooth meadow-grass (*Poa pratensis*), red fescue (*Festuca rubra*), salad burnet (*Poterium sanguisorba*), sainfoin (*Onobrychis viciifolia*), selfheal (*Prunella vulgaris*), common knapweed (*Centaurea nigra*), ribwort plantain, red campion (*Silene dioica*), lady's bedstraw (*Galium verum*), field scabious (*Knautia arvensis*), white campion (*Silene latifolia*), musk-mallow (*Malva moschata*), wild carrot (*Daucus carota*), meadow buttercup (*Ranunculus acris*), yarrow (*Achillea millefolium*), oxeye daisy (*Leucanthemum vulgare*), betony (*Betonica officinalis*), kidney vetch (*Anthyllis vulneraria*), hedge bedstraw (*Galium album*), cowslip (*Primula veris*), corn cockle (*Agrostemma githago*), corn marigold (*Glebionis segetum*), cornflower (*Centaurea cyanus*), common poppy (*Papaver rhoeas*), yellow-rattle (*Rhinanthus minor*), red clover (*Trifolium pratense*), and common camellia (*Camellia japonica*).

Figure 7 Showing Other Neutral Grassland

3.3.7. INDIVIDUAL TREES

Several individual trees were present within the southern aspect of the site. Species comprised sycamore and cherry species (*Prunus sp*.).

Figure 8 Showing Individual Trees



3.3.8. NATIVE HEDGEROW WITH TREES

Hedgerow 1 (H1), a native hedgerow with trees, extended along the site's southern boundary. Species present included hawthorn, sycamore, and cherry species. The hedgerow, excluding trees, was approximately 1.5 m tall and 0.5 m wide.

Figure 9 Showing H1

3.3.9. LINE OF TREES

One line of trees (LoT1) was present along the eastern site boundary. Species comprised Norway maple (*Acer platanoides*), sycamore, willow species, and hawthorn.

Figure 10 Showing LoT1

3.4. PROTECTED AND NOTABLE SPECIES

3.4.1. AMPHIBIANS

Consultation with WYES did not identify any records of great crested newts within 1 km of the site.

Consultation with MAGIC did not identify any great crested newt European Protected Species Licences within 1 km of the site. The closest licence was located approximately 3.8 km south of the site, associated with Low Farm. This was active between 2013 to 2015 for the destruction of a great crested newt resting place.

Great crested newts' upper dispersal limit is generally considered to be up to 250 m from a waterbody (though the occurrence of greater distances does exist where habitat connectivity is of high quality) (English Nature, 2001). No waterbodies were located within 250 m of the site boundary. As such, great crested newts are discounted from further assessment.

Consultation with WYES did not identify any records of common amphibians within 1 km of the site.

The site was assessed as providing suitable habitats for common amphibians during their terrestrial phase with the understory of the hedgerow, line of trees, individual trees, ruderal/ephemeral and the other neutral grassland (once established).

3.4.2. BATS

Consultation with WYES identified numerous records of bat species within 1 km of the site, including pipistrelle species *(Pipistrellus sp.)*, common pipistrelle *(Pipistrellus pipistrellus),* soprano pipistrelle *(Pipistrellus pygmaeus),* Daubenton's bat *(Myotis daubentonii),* brown long-eared *(Plecotus auratus)*, noctule *(Nyctalus noctula)*, lesser noctule *(Nyctalus leisleri)*, serotine *(Eptesicus seotinus),* Nathusius's pipistrelle *(Pipistrellus nathusii)* and myotis species *(Myotis sp.)*. The closest of these from 2019 was

located approximately 220 m north east of the site and comprised a Daubenton's bat maternity roost associated with the railway bridge over the Calder and Hebble Navigation.

Consultation with MAGIC did not identify any Natural England Bat Mitigation Licences within 1 km of the site. The closest licence was located approximately 1.8 km north of the site, associated with a residential development in Dewsbury. This was active between 2019 to 2024 for the destruction of a common pipistrelle non-breeding roost.

Several individual trees located within the site boundary were assessed for their suitability to support roosting bats, as detailed in Collins (2023). All of the individual trees were assessed as having No bat roosting potential due to a lack of maturity and/or lack of potential roosting features.

Five structures (S1-S5) were located within the site boundary. All structures were assessed for their suitability to support roosting bats, as detailed in Collins (2023). All structures (S1-S5) were assessed as having 'None' bat roosting potential. A detailed assessment and photographs of the structures are outlined in Appendix II.

The site was assessed as having limited value for foraging and commuting bats due to the large area of developed land. The line of trees, individual trees, and the hedgerow may provide some foraging opportunities for bats. However, high-value habitats present within the wider area such as the open green space featuring grassland, treelines, and scrub and the treelined railway to the north, the surrounding woodland, and the Calder and Hebble Navigation that provides connectivity to the River Calder. As such, bats are more likely to use these high-value habitats for foraging and commuting purposes in comparison to the site.

3.4.3. BADGER

Consultation with WYES identified records of badgers within the 1 km search area. No badger setts were located on-site or within 30 m of the site boundary where access was possible. Furthermore, no additional field signs such as digging, snuffle holes, or latrines were identified.

The site was assessed as having suitability for badgers within the understorey of the line of trees, hedgerow, individual trees, ruderal/ephemeral, modified grassland, introduced shrub, other neutral grassland (when matured), and the stockpiles that are part of the developed land. The habitats provide both suitable foraging and sett-building opportunities for badgers.

3.4.4. OTHER TERRESTRIAL MAMMALS

One record of a European hedgehog from 2016 was located within 1 km of the site, located approximately 760 m south east of the site associated with an area of agricultural land.

The site was assessed as providing suitable refuge and foraging habitat for hedgehogs within the understorey of the hedgerow, individual trees, line of trees, and the ruderal/ephemeral, introduced shrub, other neutral grassland (when grown), and modified grassland. These habitats may also offer suitable hibernation opportunities for the species.

Consultation with WYES did not identify any records of brown hare (*Lepus europaeus*). During the survey, no brown hare was observed on-site, furthermore, due to the site mainly comprising developed land and the disturbed nature of the site it is unlikely brown hare would be present on-site. As such, the species is discounted from further assessment.

3.4.5. OTTER AND WATER VOLE

Consultation with WYES identified one record of otter within 1 km of the site, the record was from 2019 and located approximately 1 km west of the site associated with the River Calder. No records of water voles were identified within 1 km of the site.

No watercourses are present within or adjacent to the site boundary. The closest watercourse comprises the Calder and Hebble Navigation located approximately 180 m north-east of the site at its closest point. Due to a lack of suitable aquatic habitat for otters and water voles within and adjacent to the site, both species have been ruled out of further assessment.

3.4.6. BREEDING BIRDS

Consultation with WYES identified numerous records of notable birds within the 1 km search area, including bullfinch *(Pyrrhula pyrrhula)*, dunnock *(Prunella modularis),* goldfinch *(Carduelis carduelis),* greenfinch *(Chloris chloris),* house sparrow *(Passer domesticus),* song thrush *(Turdus philomelos),* meadow pipit (*Anthus pratensis*), willow warbler *(Phylloscopus trochilus)*, woodpigeon *(Columba palumbus)* and wren *(Troglodytes troglodytes).* The majority of the records were associated with several agricultural fields and an allotment located approximately 455 m south east of the site.

Common and notable bird species are anticipated to be present within the structures, individual trees, hedgerow, and line of trees. Due to the site mainly comprising developed land, it is highly unlikely the site would be used by ground-nesting birds. Additionally, the hedgerow, line of trees, structures, individual trees, and on-site could support perching predators, further reducing the site's suitability for ground-nesting birds. As such, ground-nesting birds are discounted as being present on-site.

3.4.7. REPTILES

Consultation with WYES did not identify any records of reptiles within 1 km of the site.

The site was found to provide limited value for reptiles due to mainly comprising developed land and it lacks the habitat structure and quality to support the species group. As such, reptiles are not anticipated to be present on site.

3.4.8. NOTABLE INVERTEBRATES

Consultation with WYES did not identify any records of notable invertebrates within 1 km of the site.

Overall, the presence of notable invertebrates within the site is reasonably discounted due to a lack of floristic diversity and good quality habitat that could support them. Common invertebrates are likely to be present within the hedgerow, line of trees, individual trees, introduced shrub, and other neutral grassland (when grown).

3.5. INVASIVE PLANT SPECIES

Consultation with WYES identified records of Himalayan balsam, Japanese knotweed, and giant hogweed within 1 km of the site.

During the survey, rhododendron was identified within the introduced shrub.

Furthermore, it is known that Japanese knotweed has been present on-site to the south in the past. However, it is believed this has been treated and was not observed during the site visit. As such, it is believed it is no longer present.

4. ECOLOGICAL CONSTRAINTS AND MITIGATION

4.1. DEVELOPMENT PROPOSALS

Development proposals include the retention of the existing structures and the construction of an industrial unit in the northern region of the site with foul drainage and a bin compound.

4.2. HABITATS

The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as common amphibians, badgers, hedgehogs, and nesting birds. The developed land, introduced shrub, modified grassland and ruderal/ephemeral are of the lowest value for wildlife, with the hedgerow, line of trees, individual trees, and other neutral grassland (when grown) comprising the areas of the highest value.

4.2.1. HEDGEROW, LINE OF TREES, AND INDIVIDUAL TREES

It is recommended that, where possible, the hedgerow, individual trees, and line of trees are retained and protected through development. If any trees require removal, they should be replaced as soon as practicable. Any replacement planting should endeavour to be on the same aspect as that to be lost.

If the hedgerow or line of trees requires removal, it should be replaced as soon as practicable using lengths of more valuable hedgerow or line of trees. Any compensation hedgerow or line of trees planting should equate to a minimum of 1.5 times the length of hedgerow or line of trees to be lost. Any replacement planting should endeavour to be on the same aspect as that to be lost, in order to retain commuting features through the site.

It is recommended that the landscape planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species. Species deemed suitable for this development could include berry-bearing native species such as:

- Hawthorn.
- Rowan (*Sorbus aucuparia*).
- Holly (*Ilex aquifolium*).
- Whitebeam (*Sorbus aria*).
- Spindle (*Euonymus europaea*).
- Dog rose (*Rosa canina*).
- Guelder rose (*Viburnum opulus*).
- Elder (*Sambucus nigra*).

All planting should be from a trusted pest-free source and, where possible, be of local provenance.

Any trees or shrubs within the site or boundary, to be retained, are to be appropriately protected during the construction phase. Temporary protective demarcation fencing will be used to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.

The fencing will be in accordance with BS 5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations*.

4.3. PROTECTED AND NOTABLE SPECIES

4.3.1. AMPHIBIANS

The site may support small numbers of common amphibians within the understory of the hedgerow, line of trees, individual trees, ruderal/ephemeral, and other neutral grassland (once established) on-site. It is recommended that during the clearance phase of works, any common amphibians encountered be moved by hand, away from construction activities.

4.3.2. BATS

The site was assessed as having limited value for foraging and commuting bats due to the large area of developed land. Furthermore, suitable foraging and commuting habitats are present within the wider area adjacent to the site including the open green space featuring grassland, treelines, and scrub and the treelined railway to the north, the surrounding woodland, and the Calder and Hebble Navigation that provides connectivity to the River Calder. As such, foraging and commuting bats are more likely to use these high-value habitats present within the wider area. It is recommended that any lighting during construction is appropriately placed to avoid being directed at any adjacent habitats.

To reduce the potential lighting impacts for bats, the following recommendations are advised for the lighting strategy:

- Lighting should be pre-fixed on any proposed buildings, to ensure impacts on sensitive areas such as the on-site hedgerow, and individual trees, and the adjacent suitable habitats are diminished.
- Warm white tones are preferable to blue toned lights (3000k).
- LED lights are preferable as they produce minimal UV.
- To avoid light spill skyward, ensure lights face downward.
- Make use of vegetation to block light spill into dark areas

Lighting should follow the protocols outlined in The Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and The Institution of Lighting Professionals (ILP) (2023). “Bats and Artificial Lighting at Night. Guidance Note GN08/23”.

It is recommended that any planting within the site be of native fruiting/flowering species in order to enhance the site for foraging bats post-completion. Bat boxes could be installed throughout the site post-construction to enhance the site for the species group.

4.3.3. BADGERS

No badger setts were located on-site or within 30 m where accessible during the survey, though the habitats on site were identified as being suitable for the species. Badgers are highly mobile and can create new setts in a short period of time.

If a badger sett is located, a stand-off distance may be required as well as precautionary working methods. If the sett requires closure, a Natural England Badger Licence would be required. Please note

that badger licences can only be obtained between July and November (inclusive) each year to avoid potential impact on pregnant females.

The following precautionary working methods will be adhered to during the construction phase to ensure that no badgers within the local area are impacted by the proposed development:

- All site operatives will be inducted to the presence of the species and their working limits and legal responsibilities.
- If any vegetation is too dense to be fully inspected for signs of badger, vegetation clearance will be undertaken in stages under the supervision of an ecologist to check for any potential badger setts.
- All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the project ecologist immediately.
- All excavations will be battered at a 45-degree angle, or ramps will be installed, to allow the escape should animals become trapped. Alternatively, excavations will be covered overnight.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

It is not anticipated that the development will have a significant negative impact on badgers within the local area.

4.3.4. HEDGEHOGS

The site was assessed as providing suitable refuge, foraging and hibernation opportunities for hedgehogs within the understorey of the hedgerow, individual trees, line of trees, and the ruderal/ephemeral, introduced shrub, other neutral grassland (when grown), and modified grassland. These habitats should be retained where possible. Where vegetation requires removal, it should be checked for the presence of hedgehog prior to removal. If any vegetation is too dense to be fully inspected, it should be strimmed to 50 cm and checked for hedgehog before being cleared to ground level. If trees are removed, their bases should be checked, prior to removal, for sheltering hedgehogs. It is recommended that any clearance takes place outside of December-March (inclusive) to avoid impacting hibernating hedgehogs.

Post-development, a series of hedgehog houses could be installed throughout the site to enhance the site's value for the species.

4.3.5. BREEDING BIRDS

The site was assessed as having value for common bird species within the structures, individual trees, hedgerow, and line of trees. These habitats should be retained where possible.

If any vegetation requires removal or any structures require work and/or demolition, it should be carried out outside of nesting bird season. Breeding bird season occurs between March–September (inclusive). If this is not possible a suitably qualified ecologist should inspect the area no more than 48 hours prior to the removal. Should any nests, or nests in construction be located, a suitable stand-off distance should be maintained until the young have fledged. The ecologist will advise on suitable stand-off and provide a toolbox talk to all site contractors regarding their working limits and legal implications.

Post-development, bird boxes could be installed throughout the development to enhance the site's value for the species group.

4.3.6. INVASIVE PLANT SPECIES

Rhododendron was identified during the survey. It is recommended, that the plant species either be left in situ if it will not be disturbed causing it to spread or prior to the development, that the plant should be eradicated following the most current guidance set out by the Environmental Agency by a qualified contractor.

Furthermore, Japanese knotweed has historically been known to be present as such, an updated walkover should be undertaken during the summer period to confirm the invasive plant species has been completely eradicated.

5. FURTHER SURVEYS

No further surveys are required to inform a planning application.

6. BIODIVERSITY NET GAIN

The scheme will be required to achieve a 10% net gain in biodiversity. Full details of this and a calculation of net gain could be finalised after detailed landscape plans have been prepared. It is recommended that an ecologist is consulted during the design stage to ensure, where possible, that biodiversity net gain can be achieved. If this is not feasible on-site, a conservation offset payment, or off-site compensation may be required. Enhancements have been made ahead of time on-site and this has included wildflower meadow creation. Further potential enhancements with the aim to achieve a 10% gain are detailed below.

- Retaining and enhancing the hedgerow.
- Retaining and enhancing the line of trees
- Retaining the individual trees.
- Retaining and enhancing the modified grassland.
- Retaining and enhancing the other neutral grassland.
- Native hedgerow planting.
- Native tree planting.
- Wildflower meadow creation.

Habitat measures should be provided within areas of open space or designated wildlife zones. A 30-year management plan should be produced to ensure biodiversity is secured on-site.

7. REFERENCES

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal.
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.
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- Froglife (2001). Great Crested Newt Conservation Handbook.
- Institute of Lighting Engineers (2005). Guidance Notes for the Reduction of Obtrusive Light.
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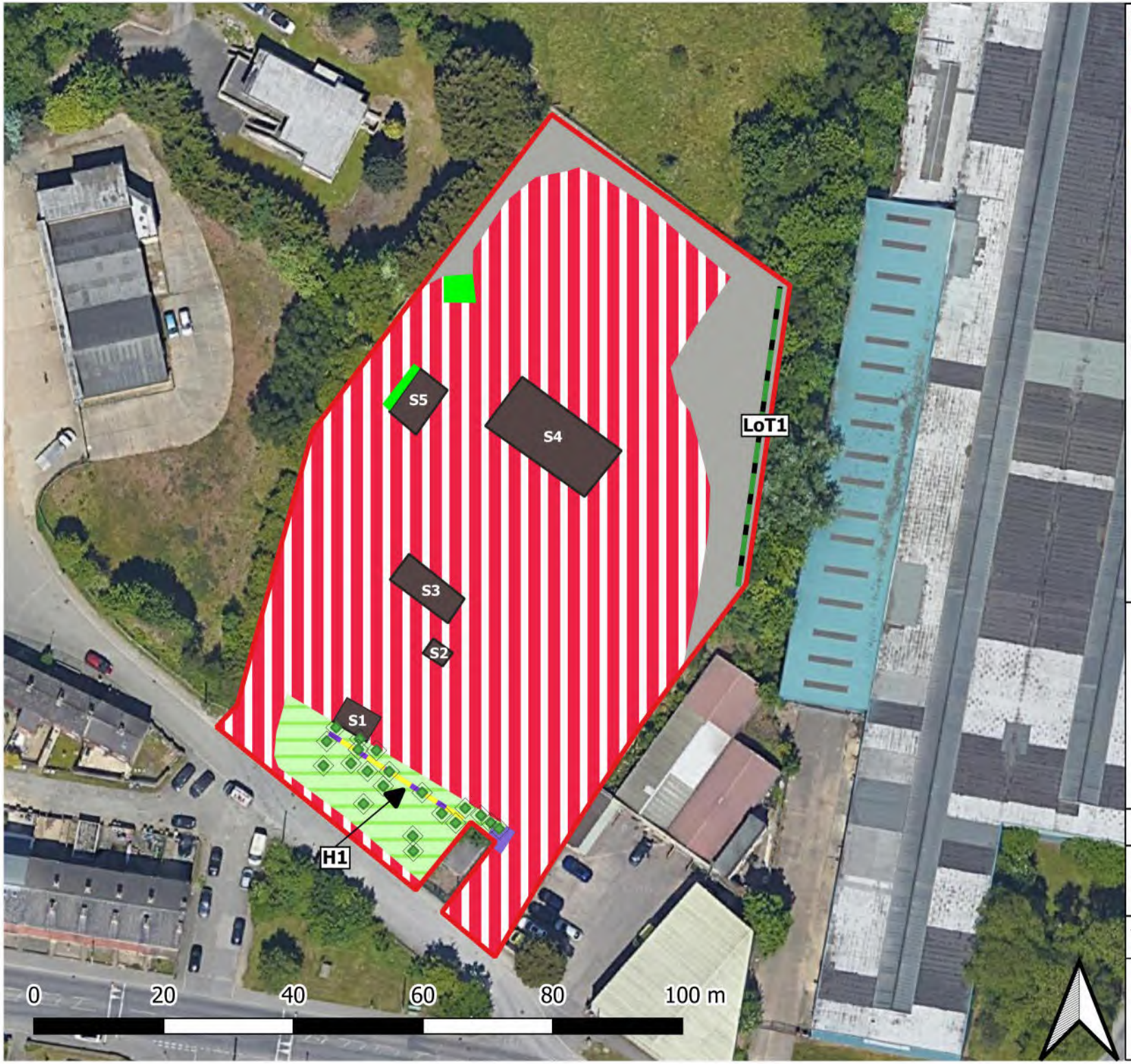
- Natural England Joint Publication JP029 (2019). The Biodiversity Metric 2.0. Auditing and Accounting for Biodiversity, User Guide, Beta Version.
- Oldham, R. S., Keeble J., Swan, M. J. S. & Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143–155.
- Stace, C. A. (2019). New Flora of the British Isles. Fourth Edition. Cambridge University Press.
- UKHab (2023) UK Habitat Classification Version 2.0.
- Wildlife and Countryside Act (2010) Schedule 9 of the Wildlife and Countryside Act 1981.

END OF REPORT

APPENDIX I
UKHAB HABITAT PLAN



Key:

- Red Line Boundary
- Individual trees
- Line of trees
- Native hedgerow with trees
- 11 Developed land; sealed surface
- Introduced shrub - rhododendron
- Modified grassland
- Other neutral grassland
- Ruderal/Ephemeral
- Buildings

Notes

Issue:	Revision:	Date:	Drawn:	Authorised:
1	1	26/09/2024	NS2	CK

Client:	Job No.	Date:
R Watson Design Services Ltd	82-036	26/09/2024
	Drawing No. 001	Scale: 1 : 800 @ A4

Job title:	Drawing title:
Lees Hall Road, Dewsbury	UKHab Habitat Plan

e3p
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APPENDIX II
PRELIMINARY ROOST ASSESSMENT

STRUCTURE REF.	DESCRIPTION	PHOTOGRAPH
S1	Structure 1 (S1) comprised a small metal shipping container associated with the site office. No features were identified that could support roosting bats. Furthermore, due to the composition of the structure including single metal sheeting is it unlikely to contain any features that could support roosts. S1 was assessed as having None bat roosting potential.	N/A
S2	Structure 2 (S2) comprised a small metal shipping container used for storage. No features were identified that could support roosting bats. Furthermore, due to the composition of the structure including single metal sheeting is it unlikely to contain any features that could support roosts. S2 was assessed as having None bat roosting potential.	
S3	Structure 3 (S3) comprised a small metal shed with a pitched roof used for storage. No features were identified that could support roosting bats. Furthermore, due to the composition of the structure including single metal sheeting is it unlikely to contain any features that could support roosts. S3 was assessed as having None bat roosting potential.	
S4	Structure 4 (S4) comprised a three-sided structure with single metal sheeting on the roof and upper floors. The lower section of the wall comprised well-sealed concrete. No features were identified that could support roosting bats. Furthermore, due to the composition of the structure including single metal sheeting is it unlikely to contain any features that could support roosts. S4 was assessed as having None bat roosting potential.	

STRUCTURE REF.	DESCRIPTION	PHOTOGRAPH
S5	Structure 5 (S5) comprised a small three-sided structure with single metal sheeting on the roof and upper floors. The lower section of the wall comprised well-sealed concrete. No features were identified that could support roosting bats. Furthermore, due to the composition of the structure including single metal sheeting is it unlikely to contain any features that could support roosts. S4 was assessed as having None bat roosting potential.